

Beliefs on Evidence-Based Nursing among Nursing Students important to implement on Professional Master's Courses

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Abstract

Background: Evidence-Based Practice improves the quality of care, enhances patient satisfaction, and leads to better outcomes this bring the immediate need integrating the best available evidence into healthcare settings. This study aims to explore nursing students' beliefs about EBP and assess its importance for successful implementation in professional master's courses. **Methods:** A cross-sectional study was conducted in the Faculty of Medical Technical Sciences, University of Medicine, Tirana, Albania. A total of 145 nursing students enrolled in the professional master's program participated. Data analysis was performed through SPSS (version 24). **Result:** this study shows a statistically significant difference in EBP beliefs between the employed and unemployed participants ($p = 0.009$), with employed students demonstrating more positive beliefs. Moreover, students who received training in EBP courses during their master's studies had significantly higher belief scores across all related questions compared to those who did not ($p < 0.05$). **Conclusion:** The EBP program plays a crucial role in enhancing the knowledge and skills of nursing students, which contributes to better outcomes in healthcare settings. However, it is essential to teach nursing students the value of evidence-based knowledge during their studies and how to apply it in clinical practice. Faculty members must also identify and address barriers to EBP implementation to foster a more positive and effective learning environment.

Keywords: *evidence-based practice, nursing students, professional master's, beliefs, program implementation*

1. Background

Evidence-based practice (EBP) in the last two decades has been integrated into all levels of the health program curricula.(1) The Bologna Process shows that the education systems across European countries are in a continuous process of reform and harmonization.(2) EBP is defined as a process that combines the best evidence available with clinical practice experience to improve patient outcomes and the quality of service.(3) Teaching and learning EBP have become a fundamental aspect of nursing education, where research plays an important role in developing new and innovative teaching and learning strategies. Nurse educators are guided by evidence-based practice in teaching and learning based on research reports, while students learn by using research findings to educate in critical thinking.(4) The largest sector of health professions is represented by nursing and their role in the future is very important, as they can address the growing demand for safe, high-quality, and effective healthcare services. The World Health Organization reports that there are major challenges for personnel in all healthcare settings and delivering quality healthcare services requires evidence-based clinical decision-making and coordinated care among health professionals. (5) Some literature reported that to prepare for future nurses, nursing curricula must be equipped with the necessary knowledge, attitudes, and skills in EBP and revised in alignment with evidence-

based nursing research. This emphasizes the necessity of including EBP in nursing curricula, as it will bring well-prepared students to practice future EBP in healthcare settings. (4,6) Healthcare systems also need to prioritize and include immediate adoption of EBP for the healthcare personnel in their practice and convince them of this emergency (7). Lecturers in nursing faculty have a crucial role in speeding up the integration of EBP in nursing practice, based on the best evidence available in all healthcare settings, preparing students for real-world application and overcoming all obstacles to gradually implement EBP. (8,9) They must demonstrate new forms of creativity and interactivity in teaching and training the future nursing specialists with the implementation of EBP in future clinical practice. (10)

In Albania, nursing plays a key role in the healthcare system, reinforced by three key points: constitute the largest segment of the healthcare workforce, they are first-line care providers, and they are offering compassionate care with their presence and adapting to critical changes in care centers as needed. (11) HAP (Health for All Project), a Swiss Agency for Development and Cooperation (SDC) project, has made significant progress in developing new profiles of Primary Health Care professionals. These efforts emphasize improving primary healthcare services with focus to improve nursing role in health education and promotion, strengthening disease prevention, self-management of chronic conditions, and expanding proactive home-based nursing care. The project focused on enhancing nurses' clinical skills through quality nursing education, nurses' autonomy in patient care, updating clinical protocols and guidelines for non-chronic diseases (NCDs), training nurses to manage them, and improving healthcare quality. HAP has facilitated the introduction of a new approach to family nursing by supporting the establishment of a professional master's program in family nursing. This program features a curriculum aligned with the Bologna Process and tailored to Albania's specific healthcare needs, with a strong emphasis on the importance of EBP for effective implementation. (12)

NCD constitutes the greatest challenge to the healthcare system and is the leading cause of premature mortality 94% of total deaths in 2016. This situation urgently needs a comprehensive, evidence-based strategy to prevent and manage NCDs and transmitted diseases. (13) Some literature reported that Albania faces challenges related to the institutional value system, curriculum organization, scheduling, and the integration of training, as well as the motivation of teaching staff. (14) Addressing these issues requires sustained collaboration between universities and healthcare institutions, as well as continuous nursing curriculum development. Nursing professionals must be well-prepared to address this challenge, and their education must be grounded in EBP principles (15,16). Reforms have introduced EBP into nursing education and master's programs, there is limited understanding of how nursing students perceive EBP. Their beliefs are crucial in effectively adopting and applying EBP principles in clinical settings. Exploring these beliefs is essential for guiding future improvements in curriculum design and teaching methods, especially at the professional master's level. (16)

2.Objective

This study aims to explore nursing students' beliefs on EBP and assess the importance of implementing EBP courses in other professional courses in the nursing faculty.

3. Materials and Methods

A cross-sectional study was conducted in the Faculty of Medical Technical Science, Medicine University of Tirana, Albania over two academic years from 2021-2023. A total of 145 students participated in the study. The EBP course is included only in the professional master's program in Family Nursing and is not offered in other branches that offer this Faculty. The EBP course consists of 44 hours (4 ECTS) and is taken by students during the first semester.

Inclusion criteria: students enrolled in the professional master's program in nursing at our faculty were included in the study. Exclusion criteria: students unwilling to participate in this study. After being informed and obtaining consent from study participants, data was collected using a pre-designed semi-structured questionnaire.

3.1 Statistical analysis

A structured questionnaire can easily be divided into two main sections consisting of personal and demographic data of the participants including gender, university affiliation, employment status, and

academic year. The second step consists of 20 questions that describe the beliefs of the participants about EBP. (21) The questionnaire contained a 5-point Likert-type scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree) and the students were asked to report their agreement or disagreement with each question. The anonymous, self-administered, paper-based questionnaires were completed in the presence of the researcher and a collaborator to ensure clarity and completeness. Data collection was realized at the Faculty of Medical Technical Science, Medicine University of Tirana, Albania from January to February 2022 and 2023, at the end of the first semester. The questionnaire required approximately 30 minutes to complete. Detailed information was given to all participants in the study, and their right to accept or refuse to participate in the study. Questionnaires were provided anonymously, to maximize accuracy and reliability concerning the responses obtained. Based on the prerequisites presented above, all the steps of the research protocol have been followed by the Health Research Ethics Board. When preparing the questionnaire, the use of technical terms was kept to a minimum to retain clarity, particularly for the benefit of participants who took part in the study. To analyze the data, we first gathered the responses and entered them by hand into a Microsoft Excel spreadsheet and then analyzed them using SPSS (version 24). By applying descriptive statistics, we were able to summarize the demographic details and Likert scale responses, which helped us understand how students view EBP.

4. Results

Among a total of 155 students who attended the professional master in the 2022 and 2023 academic year, 145 (93%) completed the questionnaires of our study and 10(7%) refused to participate. Most participants were female, 115(79.31%), and only 30(20.69%) of participants received EBP in their professional master's.

Table 1: Distribution of the demographic information of the participants

	trained with EBP course (n=30)	untrained with EBP course(n=115)	Total	X2	p
Gender					
male	2(1.38)	28(19.31)	30(20.69)		
female	28(19.31)	87(60)	115(79.31)		
Total	30(20.69)	115(79.31)	145(100)	4.533	0.033
Education level					
BSc in FMTS	BSc, in public university	BSc, in Private university	Total		
102(70.35)	18(12.41)	25(17.24)	145(100)	2.161	0.339
Employment status of participants					
employed	unemployed				
42(28.96)	103(71.04)		145(100)	10.916	0.009
Academic year					
2021-22	2022-23				
family nursing professional master	16(11.03)	14(9.65)	30(20.69)		
general nursing professional master	60(41.38)	55(37.93)	115(79.31)	0.012	0.909

Table 1 shows that 70.35% of participants have studied BSc in FMTS, and don't have EBP in their Bachelor program. Gender showed a statistically significant association. A higher proportion of females (19.31%) had been trained in EBP compared to males (1.38%), and $p = 0.033$. Employment status was also significantly associated with EBP training, $p = 0.009$. Among the employed students, there may be more opportunities to engage in EBP-related education compared to the unemployed students.

Table 2. Responses to evidence-based practice belief scale by trained and untrained students with EBP course (n = 145)

Agreement to each statement:	trained with EBP course n= (30)		untrained with EBP course; n= (115)		
	Total students (n= 145)	trained with EBP course (n= 30)	untrained with EBP course (n=115)	X2	p
1.I believe that EBP results are the best clinical care for patients.	57(39.31)	27(90)	30(26.08)	8.319	0.003
2. I am sure that evidence-based guidelines can improve clinical care.	62(42.75)	27(90)	35(30.43)	9.449	.002
3.I am sure that implementing EBP will improve the care that I deliver to my patients.	63(43.44)	27(90)	36(31.30)	4.763	0.029
4.I believe that critically appraising evidence is an important step in the EBP process.	62(42.75)	26(86.66)	36(31.30)	6.014	0.014
5.I believe the care that I deliver is evidence-based.	63(43.44)	27(90)	36(31.30)	1.538	0.214
6.I am sure about how to measure the outcomes of clinical care.	61(42.06)	27(90)	34(29.56)	2.861	0.090
7. I am sure that I can implement EBP.	65(44.82)	27(90)	38(33.04)	2.069	0.15
8.I am clear about the steps of EBP.	66(45.51)	27(90)	39(33.91)	5.643	0.017
9.I believe that I can search for the best evidence to answer clinical questions in a time efficient way.	66(45.51)	27(90)	39(33.91)	2.774	0.095
10.I believe that I can overcome barriers in implementing EBP.	65(44.82)	27(90)	38(33.04)	13.21	0.002
11.I believe that EBP takes too much time.	72(49.65)	27(90)	45(39.13)	7.542	0.006
12.I am sure that I can access the best resources to implement EBP.	61(42.06)	27(90)	34(29.56)	13.08	0.002
13.I believe EBP is difficult.	65(44.82)	27(90)	38(33.04)	9.692	0.001
14.I know how to implement EBP sufficiently enough to make practice changes.	71(48.96)	27(90)	44(38.26)	6.15	0.013
15.I am confident about my ability to implement EBP where I work.	65(44.82)	27(90)	38(33.04)	5.145	0.023
16.I am sure that I can implement EBP in a time-efficient way.	64(44.13)	27(90)	37(32.17)	4.183	0.04
17. I think EBP is just a theory and that it cannot be applied in clinical care.	72(49.65)	27(90)	45(39.13)	14.22	0.001
18. I think that the findings of a single study do not represent the true facts.	72(49.65)	27(90)	45(39.13)	12.835	0.003
19. I think that, if nurses can implement EBP in their daily clinical care, they can prevent mistakes.	75(51.72)	27(90)	48(41.73)	8.218	0.004
20. I think that EBP can reduce the occurrence of medical errors.	73(50.34)	27(90)	46(40)	12.59	0.003

Table 2 summarizes nursing students' agreement (agree/strongly agree) with various EBP-related statements, comparing those trained in EBP (n = 30) with those untrained (n = 115). A total of 20 items were analyzed using chi-square test (χ^2) to assess statistically significant differences between the two groups. The focus is on comparing the beliefs and attitudes of nursing students trained vs. untrained in EBP. The nursing students who had received EBP training demonstrated significantly more positive beliefs, $p=0.003$, greater confidence that EBP can improve care, $p=0.002$ and a stronger understanding of EBP principles compared to untrained nursing students. Students trained in EBP were significantly more likely to agree with the most positive EBP statements. The strongest differences (smallest p-values) were observed for the following beliefs in items 1,2,10,12,13,16,17, 18,19,20, $p = 0.05$. These findings suggest that EBP training increases not only nursing students' confidence using EBP but also their critical understanding of its practical challenges and limitations.

5. Discussion

This study aimed to explore the beliefs on EBP among nursing students in a professional master's program. Our findings showed a significant difference in beliefs between students who had received EBP training and those who had not. The trained students in EBP showed more positive attitudes in their ability to apply EBP in daily practice in healthcare centers. Similar findings are reported in other studies, (16) but other studies have reported a high percentage of students aware of EBP. (17-19) This highlights a crucial gap in nursing education and EBP training. However, EBP training should not be limited to specialized programs like the master's in Family Nursing but should be integrated across all health programs. Only 20.69% of all participants were trained in the EBP course, which highlights a critical gap in nursing education and supports the EBP integration across all levels of nursing programs. As noted in other studies, early and comprehensive exposure to EBP during undergraduate and general nursing education can encourage the foundation for evidence-based care. (20,21)

Our findings showed that a lack of exposure to EBP among general nursing students, as well as students in related fields like physiotherapy and midwifery, raises concerns. Other studies reported that implementing an EBP course enhanced the EBP knowledge and skills of undergraduate nursing students. (20) If future healthcare professionals are not well-trained in EBP, they may struggle with evidence-based decision-making in clinical practice. This finding underscores the need for curriculum reforms that ensure all healthcare students are equipped with EBP knowledge and skills. Other studies reported that implementing EBP will equip future nurses with the necessary EBP competencies to overcome implementation challenges in clinical practice, ultimately leading to improved healthcare outcomes. (21) This reinforces the need for curricular reforms that include EBP as a core component of all health-related academic programs.

The study found that students who received EBP training scored significantly higher on belief-related questions ($p < 0.05$), which is in line with other studies. (16,17) This supports the idea that structured EBP education fosters confidence and a positive attitude toward applying it in practice consistently with previous research. However, understanding whether belief translates into real-world implementation would help lecturers refine EBP training programs to focus on practical application, not just theoretical knowledge. One notable demographic trend in the study is that most participants were female (79.31%), and gender showed a statistically significant association, $p = 0.033$. While this reflects the gender distribution commonly seen in nursing, some literature has reported how gender dynamics may influence attitudes toward EBP, as female nurses exhibited more positive attitudes compared to their male counterparts (22), but other findings suggest that male nurses may utilize a wider scope of practice, which could influence their attitudes toward EBP (23).

Only 28.96% of the participants were employed showed a significantly stronger belief in EBP ($p = 0.009$), which was supported by other studies finding that employed nurses had a higher mean attitude score (68.52 ± 5.80) compared to nursing students. (47.51 ± 2.07) (24) The literatures suggests that real experience may reinforce the practical value of EBP more than classroom learning alone. If students can see EBP in action and understand its impact on patient care, they may be more motivated to embrace it.

We have found some barriers to implementing EBP in practice between trained and untrained students with EBP. Some students despite training still perceived EBP as time-consuming ($p = 0.006$) and difficult to implement ($p = 0.001$). These findings highlight common barriers to EBP adoption, such as: lack of

institutional support, heavy workloads that leave little time for research, and inadequate training on how to efficiently integrate EBP into clinical practice, which is in line with other studies.(25) Addressing these issues requires system-wide changes to make EBP more accessible and feasible in real-world settings.

Our study highlights Albania's ongoing healthcare reforms, including efforts to strengthen nursing education and integrate EBP supported by HAP in primary care, but institutional changes are still needed.(12) However, challenges remain, particularly in standardizing curricula and training faculty to teach EBP effectively.(11) It is required to focus widely on some important points, such as: firstly, reforming the nursing curriculum (integrating EBP across all health programs). Secondly, it is overcoming institutional barriers (improving access to EBP resources, reducing time constraints, and embedding EBP into clinical protocols). (25) Third, translating the theory into practice (developing more clinical EBP training into academic programs). Fourth, evaluate the future by studying that assesses how student beliefs about EBP influence their clinical practice after graduation. (25)

6. Conclusion

This study provides valuable insights into how EBP education shapes nursing students' attitudes. The findings emphasize the importance of integrating EBP training across all nursing programs and addressing the practical barriers that hinder its implementation. By reforming curricula, strengthening clinical training, and improving institutional support, nursing education can better prepare future healthcare professionals to deliver evidence-based care. Ultimately, these changes can contribute to higher-quality healthcare and improved patient outcomes in Albania and beyond.

Limitation of study: Firstly, we have included participants only from the Faculty of Medical Technical Science, Medicine University of Tirana, Albania. In the future it is necessary to include studies in other universities. Secondly, one major limitation remains: Does a strong belief in EBP lead to its use in clinical settings? This study does not answer that question, leaving an important area for future research.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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