

Barriers to the Adoption of Evidence Based Practice in Nursing: a Focus Group Study

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doi: 10.5455/aim.2023.31.306-311

ACTA INFORM MED. 2023, 31(4): 306-311

Received: JUL 25, 2023

Accepted: SEP 04, 2023

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ABSTRACT

Background: Evidence Based Practice is considered a complex process with many factors hindering its implementation. The use of focus groups to detect barriers to its application can provide an in-depth investigation of the phenomenon. **Objective:** The investigation of nurses' views regarding the obstacles connected to the implementation of Evidence Based Practice. **Methods:** This is a qualitative study carried out using focus groups and constitutes the continuation of a quantitative study. Deliberate sampling was used to recruit a total of 31 nurses. **Results:** The main categories that emerged regarding the obstacles in the implementation of Evidence Based Practice in nursing, concerned the lack of logistical support, the difficulty of accessing data, the insufficient knowledge of nurses as well as their attitude, the nature of the work, the decision-making process and the impossibility of safeguarding decisions made. **Conclusion:** In this study, various factors were identified that affect the application of Evidence Based Practice, in the nursing environment of Cyprus. Identifying these factors can be the basis for discussions and finding ways to resolve the problems that exist by health care managers.

Keywords: Barriers, Focus group, Evidence-Based Practice, Nursing. .

1. BACKGROUND

Diabetes). Evidence Based Practice (EBP) is an integral part of high-quality health services and has been internationally recognized as an ideal problem-solving approach which assists health professionals in reaching better decisions about healthcare. 1, 2It has also been recognized as the golden ratio for providing safe and quality care as well as for promoting optimal nursing care.³ However, it is considered a complex process that causes a variety of factors that hinder its implementation. 4,5,6 These factors may be related to the inclination of either the nurses or the organization for the implementation of the Evidence Based Nursing Practice (EBNP). 7,8 Obstacles affecting the implementation of EBNP have been explored in many countries, mainly through quantitative studies. The authors mainly mention the lack of time, resources, evidence, authority, support, motivation and resistance to change. 8,9

The use of focus groups to detect

barriers to EBNP implementation can provide an in-depth investigation of the phenomenon. 10,11 Focus groups can investigate or shed light on issues arising from the analysis of the results of a quantitative survey. 12

EBP is considered a quality method of data collection, where the communication between the participants is used for data generation, since information is received not only from each team member but also from the interaction between the team members.^{10,13,14} This fact enables the focus groups to provide in-depth information on the subject under study.

2. OBJECTIVE

The purpose of the focus groups in this particular study was to investigate the nurses' views relating to the barriers affecting the implementation of the Evidence Based Practice.

3. MATERIAL AND METHODS

This is a qualitative study carried out using focus groups. The present study

Socio-demographic characteristics		N
Gender	Female	23
	Male	8
Age	20-29	5
	30-39	18
	40-49	4
	50-59	3
	60-69	0
Level of education	Diploma/BSc	21
	MSc	10
	PhD	0
Years of service	<5	4
	6-9	11
	10-14	8
	15-19	2
	>20	5
Year of last studies / education	2004-2008	2
	2009-2013	20
	2014-2018	6
	2019	1
Position	Nursing Officer	28
	Senior Nursing Officer	3
Department	ICU	8
	Surgical	8
	ENT	1
	Pathological	8
	Neurosurgical	1
	Orthopedic	2
	Nephrological	1
	Cardiology	1
	Pediatric	1

Table 1. Socio-demographic characteristics of participants

is a continuation of a quantitative study 15 in which a questionnaire was used aiming to clarify the factors that affect nurses in the application of EBP. This research adheres to the Consolidated Criteria for Reporting Qualitative Research (COREQ).¹⁶

3.1 Participants

Purposive sampling was used to recruit a total of 31 nurses. The said sampling was based on four criteria in relation to the participants: (1) to want/desire to participate in the focus groups, (2) to be graduates of Technological or University education and/or hold a Master's degree, (3) to be employed in Public sector departments relating to the provision of Secondary and Tertiary Health Care, (4) to speak and understand the Greek language in written and spoken language.

The socio-demographic characteristics of the participants are presented in Table (1). For the purposes of this study, four focus groups were created having a similar composition. Specifically, three groups comprised of eight participants each and one group comprised of seven participants were formed.

Following recommendations from existing literature¹² and in an effort to avoid phenomena of influence, domination and monopolisation during the discussion, the individuals chosen in each group had common characteristics and group homogeneity was planned.

The individuals of the focus groups were from a variety of departments, so that equal representation of all departments was accomplished. However, equal representation of the two sexes it was justifiably not possible to include equal representation of the two sexes as men are a minority in the nursing profession.

3.2 Data collection

The focus groups were formed with the cooperation of the staff training managers following the permission granted by the Management of Nicosia General Hospital and Limassol General Hospital and took place in specially designated rooms of the two hospitals. Group interviews were conducted in January and February of 2019.

An independent coordinator was selected to conduct the focus groups. The coordinator who was psychotherapist and mental health nurse with a doctorate and had excellent communication skills, good listening and observation skills and experience in group dynamics, used a semi-structured interview guide. Before the start of the interviews, the Coordinator informed the participants about the purpose of the meeting, the interview process, their right to leave at any stage they wish and noted their voluntary participation and the preservation of their anonymity. During the coordinator's introduction, it was also mentioned that the interviews would be recorded. This was done so that the participants would avoid reports disclosing theirs or the other participants identity. Participants were then asked to sign the written informed consent form and complete the relevant form with their demographics. The signing of the written informed consent form marked their consent to participate in the research. In the interviews, in addition to the Coordinator who conducted the interviews, an observer was present who recorded the conversations, using a tape recorder and monitored and recorded the group's reactions, verbal and non-verbal messages. The focus groups lasted about one and a half (1.5) hours each. The topics

THEME	CATEGORIES	SUBCATEGORIES
Barriers to the application of Evidence Based Practice	Inadequate logistical infrastructure	Consumables
		Facilities
		Equipment
	Difficulty accessing data	Difficult procedure
		Lack of time
	Insufficient knowledge of nurses	Deficient/Insufficient education
		Non-connection of theory and practice
		Not updated/Uninformed protocols
	Nurses' attitudes	Habit
		Lack of initiative
		Insecurity
		Supervisors'/ Head Nurse stance
		Status quo
	Working nature	Resistance to change
		Reluctance
Workload		
Lack of time		
Decision making process	Pressure/Load	
	Shortage of staff	
	Negativity towards EBP from supervisors/Head Nurses	
Inability of establishment	Experts	
	The views of older nurses are taken into more consideration	
	Disagreement with doctors	
Inability of establishment	Absence of protocols	
	Negative remarks	
	Lack of duty record	
Inability of establishment	Insufficient support from the Ministry	

Table 2. Theme, Categories and Subcategories

discussed were their perception of the barriers to the implementation of the Evidence Based Practice and their views on the findings found using the Barriers Scale tool.

The questions created concerned the subject of the present research as well as the findings from the quantitative part of the research. These questions were structured in such a way as to give participants the opportunity to express their views on EBP and the obstacles of putting that research into practice. Moreover, through the questions, the nurses were asked to comment on some of the research findings that were found to be statistically significant. The questions selected were stipulated as follows:

- a) What do you think hinders the use of EBP?
- b) The following were mentioned as obstacles to the use of EBP, please comment. How do you explain the following findings? What is causing them what are your comments?
 - 83.3% stated that “the nurse does not feel empowered enough to change the patient’s care procedures”
 - 81.5% stated that “the nurse feels that the results do not apply in his/hers own environment”
 - As a third obstacle, the nurses chose the lack of facilities which could be used for implementation

3.3 Validity and Reliability

Reliability was ensured by using independent researchers from different sectors to transcribe the interviews and encode the data. The agreement between the researchers ranged from 87% to 92%. The validity was confirmed by describing in detail the sample, the data collection process and the data analysis. The interviews were conducted by an independent coordinator to ensure that there were no influences from the research team during the focus groups. The results were validated through a triangulation process with the existing literature.

3.4 Data analysis

For the evaluation of qualitative data, the method of thematic analysis was followed and the statistical package Atlas.ti was used. Upon the completion of the focus groups meetings, the recordings received were translated into text. In order to achieve familiarity with the data and to better understand the meanings that the interviewees meant to convey, a careful reading of the interviews which were registered in the Atlas.ti program, was implemented. In order to be consistent with the requirements of the research questions, a repeated reading of the excerpts was concluded so that the main issues were identified.

The categories were then determined and the important excerpts were separated according to the topic and category where they could be included. After that, another reading was done to identify further categories and to present the findings more clearly and in a more organized way, to correct any overlaps and to merge categories if necessary. 17,18

3.5 Moral issues

This study was approved by the National Committee of Bioethics. Also all nurses who participated in the focus groups gave their consent in advance. Participants were informed in writing of the purpose of the research and were assured that the research was anonymous, the information confidential and that they could leave at any time, without any consequences. The signing of the written information form also meant consent to participate in the research.

4. RESULTS

4.1 Demographic characteristics of the participants

Demographic details for participants are described in Table 1.

4.2 Barriers to the application of Evidence Based Practice

The main obstacle categories that emerged relating to the implementation of the EBP (Table 2) concerned the lack of logistical infrastructure, the difficulty of accessing data, the insufficient knowledge of nurses, the nurses’ attitude, the nature of work, the decision-making process and the inability to secure EBP.

4.2.1 Inadequate logistical infrastructure

A particularly serious obstacle to the implementation of EBP is the lack of adequate logistical infrastructure required to implement it. These shortages are observed in consumables, problematic facilities, and insufficient equipment.

The lack of necessary materials for the application of EBP is so great that it extends to basic items such as sheets for the patient’s bed. The same happens with the facilities of the hospitals, which do not meet the international standards, thus preventing the application of the latest developments in the field of nursing. Problems are also created by the lack of equipment, which does not allow the implementation of EBP. A nurse state that:

“Consumables play a role, equipment, as you need equipment and consumables to implement some things” (W4, Nicosia, Group 2).

4.2.2 Difficulty accessing data

Another obstacle to the implementation of EBP is the difficulty that nurses face in accessing data, so to be informed of new developments in the nursing science. This is because the source process itself is difficult, as using the library requires several time-consuming procedures. On the other hand, even if the process was easy, the interviewees say they do not have enough time to study. A nurse reports:

“If I want to search for a research topic that interests me, if I do not have access to a journal or a library, I have to go to the University library, go there to fill out the form, sign... it is a process” (W4, Nicosia, Group 1).

4.2.3 Insufficient knowledge of nurses

However, the most serious obstacle for the implementation of the EBP, seemed to be the inadequate knowledge of the nurses due to lack of education, non-connection of theory with practice as well as insufficiently updated protocols.

According to the interviewees, the training for new developments is from incomplete to non-existent or long delayed. Another a major barrier to improving nurses’ knowledge is the lack of connection between theory and practice, which would help to create comprehensive knowledge. In addition, the improvement of nurses’ knowledge is hindered by protocols that are not up to date with the latest developments. W6 emphasizes:

“We want to know, we are interested but we are still waiting for them to show us the new method” (W6, Limassol, Group 1).

4.2.4 Nurses’ attitudes

Equally important barrier to the implementation of the EBP is the negative attitude of nurses, which stems from their preference to leave things as are, lack of initiative, insecurity,

the supervisor's attitude, the existence of the established, their resistance to change and reluctance of nurses to work according to new techniques.

The power of habit is a serious reason why nurses do not apply EBP, as changing the routine is not a simple and easy task. In addition, they are negatively affected by a lack of initiative, resulting to no one deciding to start implementing a new practice and due to the insecurity, they feel about implementing something new, as they are afraid of doing something wrong. The attitude of the nurses is also influenced by the stance of their supervisor's. If the supervisor's standpoint is positive then the nurses are also affected positively, while if they are negative then the nurses are directed to be negative towards EBP. The existence of the established, of procedures and situations that are not susceptible to change, is considered an element that negatively affects the attitude of nurses. The negative attitude in EBP can also be explained by the resistance that individuals show to change and the unwillingness of some nurses to work differently. Some nurses have a hard time adjusting to the new, which is why they resist change. W1 and W5 point out that:

"Many nurses advocate that since the old method had good results and we have been using this method for so many years, why should we change it now?" (W1, Nicosia, Group 2).

"If you change a method, you have been using so far and everything is going well, there is the fear that by changing it something could go wrong" (W5, Nicosia, Group 2).

4.2.5 Working nature

The implementation of EBP is further hindered by the nature of the nurse's work which is distinguished for its workload, lack of time, stress, and lack of personnel.

The workload of nurses is considered to urge them to work as they have learned and not to try something new. It is also considered that the implementation of the EBP is a time-consuming process, while nurses suffer from lack of time and therefore it cannot be implemented. In addition, due to the pressure that nurses feel they have, they prefer not to apply EBP, believing that this way they will be able to perform their duties. A negative element is also the shortage of staff, which in combination with the lack of time suspends the implementation of the EBP. W3 and W4 explain:

"Maybe the workload do not allow it and this is why nurses apply the old way" (W3, Limassol, Group 1).

"It is a process that takes time and nurses prefer to stay in what they know and not waste time" (W4, Nicosia, Group 2).

4.2.6 Decision making process

The decision-making process is considered by the interviewees a factor that hinders the implementation of the EBP, due to the negative attitude of the supervisors, the existence of people who are considered as authorities/experts, the weight of the views of older nurses and disagreements with doctors.

When the Heads of the nursing division/branch are negative towards the implementation of the EBP then they do not allow their subordinates to implement it. Especially, when an opinion against EBP is expressed by people who are considered authorities in the field of nursing. The opinion of nurses being in service for many years and the opinions of nurses older in age, is considered to be of great importance and that cannot be disputed, therefore if their opinion is negative towards EBP, it hinders its implementation. Another obstacle is

the disagreement with the doctors, who are considered to be the ones who decide how to apply a technique or treatment. According to W4 and M2:

"Sometimes it is the views of the elders because in some cases the Heads do not accept it, do not accept the new procedures, they prefer what they learned from the past, so they continue to do it" (W4, Limassol, Group 1).

"You cannot go against your older colleagues. Additionally, the supervisors will take their opinion into greater consideration than you who have just started practicing" (M2, Nicosia, Group 1).

4.2.7 Inability of establishment

Finally, an obstacle to EBP is the inability to establish the practice that the nurse wants to apply, due to lack of protocols, lack of duties and insufficient support from the Ministry. Therefore, when a nurse tries to apply a procedure that is not legally required this leads to negative remarks/complaints from the supervisors.

The absence of a protocol makes it difficult to implement the EBP, as nurses are reluctant to implement something that is not recorded anywhere. Therefore, the application of the EBP may result in negative remarks towards the nurse as well as to problems regarding his evaluation, and legal implications. Due to the fact the support from the Ministry of Health is insufficient, the unregistered implementation of the EBP, can complicate the situation. W2 and W3 state that:

"Maybe it's also the protocols, because if we do not have something to secure us, we may be reluctant to act with the new data" (W2, Limassol, Group 2).

"Many times, when we took an initiative, we found ourselves in trouble, I mean in our attempt to help, we were blamed, so why should I risk being reprimanded, rather than doing what everyone else is doing" (W3, Limassol, Group 2).

5. DISCUSSION

With the use of the focus groups, it became possible to delve into the subject, and to additionally record the views of the nurses. The participants offered their own perspective of the barriers on applying EBP as being the lack of authority in changing care procedures, the nurses' view that the results are not applicable in their own work environment and the inadequacy of facilities. At the same time, they defined as equally important obstacles, the insufficient knowledge of the nurses due to lack of education, the lack of connection between theory and practice as well as the insufficiently updated protocols.

Regarding the nurses inability to change the practice due to their lack of authority, the nurses in the Focus Groups stated that this is enhanced by the lack of duty records/work schedule, which secures the nurse when applying EBP as well as the lack of support from the Ministry of Health in adopting EBP. According to the existing literature, the organization plays a vital role in empowering nurses to integrate research findings into daily practice. In the quantitative study of Dalheim, et al., (2012), with a sample of four hundred and seven (407) nurses in Norway, it was shown that organizational support, like culture, is considered a strong motivating factor for the adoption of this approach. 19 Therefore, the support of the Ministry and of the Administration is considered necessary. Nurses need to feel empowered to change practices in

their clinical environment and not be constrained by the bureaucratic requirements of a hierarchical organization. Many studies have shown that the biggest barrier the nurses' lack of power. 20,21, 22

The second barrier that the nurses of the focus groups were asked to comment on was the nurses' opinion that the results of the research are not applicable in their own work environment when the right resources and facilities are not available. The fact that a percentage of nurses lacks knowledge surrounding EBP makes the task even more difficult. When nurses are unaware of the stages of the EBP implementation process or even its very existence, the results are expected to be considered inapplicable by them. This finding is consistent with the results of the study of Omer, (2012), which was conducted in three (3) regions of Saudi Arabia in four hundred and thirteen (413) nurses,²³ as well as the results of the study of Buhaid, Lau, & O'Connor, (2014) with a sample of two hundred and nineteen (219) nurses in Bahrain, who showed that for many nurses the results of research are inapplicable in their clinical environment.²¹

Lastly, the inadequacy of the facilities has been pointed out as one of the biggest barriers and was also mentioned by the focus groups. The discussion highlighted the non-compliance of hospital facilities with international standards, thus preventing the implementation of the latest developments in the field of nursing. The significant lack of necessary materials and equipment that extends to basic items such as sheets for the patient's bed was also discussed in the focus groups. The economic situation of a country also plays a major role in this factor, since as observed, nurses in developed countries such as Norway and the USA, 19, 24 did not have the same view on facilities and equipment in hospitals.

Most of the barriers identified, pointed out the insufficiency of resources, scarce access to information, lack of training, understaffing and lack of support. The application of Evidence Based Practice in nursing is complex and requires the integration of various key components, such as organizational and nursing readiness, training, equipment and administrative support.²⁵ Schaefer and Welton (2018) argued that the implementation of Evidence Based Practice requires organic readiness.⁸ Moreover, the study of Stavor, et al., 2017 mentioned the lack of educational preparation as a significant obstacle for the implementation of Evidence Based Practice.²⁶ In summary, the barriers presented in this study do not differ significantly from the majority of studies. 27, 28, 29

6. CONCLUSION

In this study, various factors affecting the application of EBP in the nursing environment of Cyprus were identified. Deterrents to EBP are multifactorial and are related both with the organization and the nursing staff. However, the reasons why nurses lack autonomy are not clear and need further investigation. Creating a duty work schedule for nurses could possibly assist in increasing their autonomy.

Determining the factors that affect the implementation of EBP, can constitute the initiation of discussions with the Directorate of the Ministry of Health, regarding the elimination of these obstacles by the Health Care Managers and finding ways to solve the existing problems. Efforts should focus on the systematic use of strategies to encourage and support

nurses at all stages of EBP, which have been shown to be effective by various studies. Because the number of qualitative studies is limited, more are required worldwide, aiming to deepen and explore the views and experiences of nurses on the subject.

- **Ethical consideration:** This study was approved by the National Committee of Bioethics (EEBK.ΕΠ 2017.01.83)
- **Acknowledgements:** This study is part of the researcher's thesis at the Nursing Department of Nicosia University, Cyprus. The author is grateful to the research team for its help in writing this research article.
- **Declaration of patient consent:** The authors certify that they have obtained all appropriate patient consent forms.
- **Authors' contributions:** IS contributed to the conceptualization, methodology, and formulation of the research questions. AO played a role in the design of the study, data collection, and analysis. NN contributed to the interpretation of the data and provided critical input during the writing of the manuscript. KK contributed to the analysis and interpretation of the epidemiological data. GI contributed to the literature review, data analysis, and manuscript writing. All authors reviewed and approved the final version of the manuscript.
- **Conflict of interest:** The authors declare no conflict of interest related to this study of any kind. **unding Information:** No funding was received for this article.
- **Financial support and sponsorship:** No funding was received for this article.

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