

THE PERCEIVED BARRIERS TO IMPLEMENTING NURSING EVIDENCE-BASED PRACTICE: A SYSTEMATIC REVIEW

HAMDALLAH H. KHALED

Arab American University, Faculty Graduate Studies, Palestine.

Corresponding Author Email: h.khaled1@student.aaup.edu, Orcid: 000-0003-4138-3688

Abstract:

Nurses must be knowledgeable to the barriers to evidence-based implementation. Nurses need to be involved both in planning and in a multidisciplinary team responsible for research utilization, which is essential for increasing care quality. **Aim:** This review was aimed to explore the barriers to implementing nursing evidence based practice. **Methods:** A systematic review was performed using databases PubMed, Science Direct and EBSCO to access articles published between 2017 and 2022. According to the PRISMA guidelines, ten studies met the selection criteria and were included in the study. **Results:** Almost all of the studies revealed comparable results in terms of EBP barriers, with minor variances in the impact of the barriers' rank order. The findings of the ten studies revealed that the majority of nurses regarded insufficient time as one of the most significant barriers to EBP implementation in their clinical practice, followed by unsupportive organizations, a lack of EBP knowledge, and resistance to change on an individual level. This suggests that the issue is global issue. There is a significant gap between research and practice, regardless of the cause. **Discussion:** limited support and time, overwork, lack of resources, nursing shortage, and restricted nurses' autonomy are examples of organizational barriers. Individual barriers include a lack of EBP knowledge and skills, as well as a dislike of change. **Implications:** Administrators could support the development of EBP by allowing nurses time and resources to enhance their skills related to EBP.

Keywords: Perceived Barriers, Evidence based nursing, a systematic Review

Background:

Evidence-based practice (EBP) is a goal and a strategy for making health-care decisions that are based on the best available, current, valid, and relevant evidence. This evidence can be got from systematic reviews, meta-analyses, or well-designed clinical trials. EBP is the current global nursing standard. Nurses are aware of the importance and significance of EBP for healthcare systems, patients, and themselves, according to multiple studies. (Fu, et al., 2020). Because of the increased possibility of high quality nursing care, nurses should not deliver nursing care based solely on experience and textbook knowledge, but rather on study findings.

However, there is still a disconnect between awareness and implementation of evidence-based practice. (Zeb et al., 2018). Several studies have looked into the obstacles that can prevent clinical research from being used (Aljezawi et al., 2019). Most of studies categorized barriers into organizational and individual levels. Some of them added issues that are related to their cultural context.

EBP is the key to the institutions, nurses and patients. When providing health services to the patients through EBPs, the lowest costs to the institution and a high professional of nursing will being met. Institution must provide the right environment and enact policies

and nurses must develop their knowledge and skills in order to provide services to patients of high quality and otherwise they become barriers to EBPs.

Significance of the study:

Through reviewing precisely these studies that the subject of EBP; its implementation and the barriers of its application continue to be a fairly global issue. This issue has become a researchable and studied issue and accordingly, it is based on a study work in Palestine. Palestine is one of the developing countries and has specificity that it is still under occupation and still faces many challenges on the political, economic, health and other levels.

There is still a gap in the work of scientific research in general as well as in particular in the work of scientific papers dealing with implementation of EBPs. And there is still a gap in conducting qualitative and quantitative papers about this issue. This issue deserves to be studied to find out the extent and causes of the phenomenon on the ground. The implementing of EBPs serves many target groups as nurses, students, patients and institution. Therefore, identifying barriers in implementation of the nursing EBPs in Palestinian hospitals seem necessary. This review aims to explore barriers that are perceived by nurses in the implementation of evidence-based practice.

Methodology:

Method:

The first step was to conduct a keyword search in the database (implementation, adoption, compliance, EBP, nurses, barrier, obstacle, challenge). The scientific databases were utilized in the second step to find suitable sources: PubMed, Science Direct and EBSCO. The search terms used were "Perceived barriers", "challenges", "adoption", "nursing", "evidence based practice", "implementation" and the used Boolean operators were "AND" and "OR". Five hundred and seventeen documents were discovered during the first part of the search.

All duplicates and studies that did not deal with the issue in the proper context were deleted in the following round of the analysis. Studies older than six years, studies for which the entire text could not be obtained, studies with an ambiguous instrument, and systematic reviews were also excluded. There were 21 papers as findings of the studies. Following the reading of full texts, 10 studies were chosen for this review.

Inclusion and exclusion criteria: The focus of this review was on studies that have been published in English. The review covered research involving nurses working in hospitals or medical centers (qualitative, quantitative, or mixed-methods). Nursing students and other health professionals were excluded. The PRISM diagram illustrates more details regarding the search strategy.

Results:

Ten international studies from different countries and continents over the world, with different health care systems were selected for this review. Table 1 summarizes main related data. The reviewed studies included nurses working in hospitals or medical centers. The results of the 10 studies that were qualified for this systematic review were intriguing. Despite the fact that this was not a criterion for study selection, some of the studies had similarities, such as the use of the same instrument, the Barriers Scale (n = 8). This review found that nursing EBP implementation barriers were as organizational and individual.

The quantitative studies:

A study was conducted in Pakistan (**Zeb et al., 2018**) identified that lack of time, autonomy, and unsupportive organization as major barriers. In Australia four challenges to evidence use were recognized in a multisite study conducted in Sydney, including a lack of time, managerial support, training services, and difficulty getting evidence (**Fry et al., 2018**). A Jordanian study was conducted in seven main hospitals in the capital city shew major barriers to nurses creating EBP as insufficient time and resources to change, nursing shortages, workload, and a lack of database resources (**AbuRuz et al., 2017**). In Oman, nurses' opinions toward evidence-based practice challenges to implementation were as difficulty in finding and reviewing evidence than altering practice, beside a lack of EBP knowledge/skills, time, and resources (**Al-Maskari et al., 2018**).

A total of 195 nurses were simply picked from all nurses employed at one Saudi Arabian specialty hospital and research center gave the highest mean score for insufficient time to read research and to the lowest mean score for irrelevant research to the nurse's practice (**Aljezawi et al., 2019**). The most common barriers also were those relating to the health institution itself and physicians beside increased workload. In Ethiopia, nurses believed on no benefits to change, and they are not supported from knowledgeable colleagues to discuss new findings, physicians also do not cooperate and no incentive for clinical practice development (**Hoyiso et al., 2018**).

According to these quantitative articles, the barriers are based on organizational level such as lack of support, overwork load, lack of time, and lack of resources, nursing shortage, and decreased nurses' autonomy. The individual barriers are lack of EBP knowledge and skills and resistance to change. Rationally the organizational barriers are more significant than individual one. The most significant organizational barriers is lack of time. It was found to be the greatest obstacle in six of these studies. On the other hand lack of EBP knowledge are found as a major one in three articles (**Atakro et al., 2020; Fry et al., 2018; Hoyiso et al., 2018**).

The qualitative studies:

(Abdulwadud et al., 2017) Revealed that lack of assistance, poor infrastructure, workplace limits, and a lack of resources as organizational barriers. Individual-based barriers were as a lack of computer skills, motivation, resistance, and limited opportunities for professional development. In China: the evidence, nurses, patients, setting and support are major barriers. There is a mismatch between evidence and clinical context. Chinese nurses had lack of knowledge and skills of project leaders and poor compliance. Their patients had low compliance. Poor ward atmosphere, lack of leadership, lack of resources and support from other health-care professional were also founded **(Fu, et al., 2020)**.

According to those qualitative articles, they are congruence with quantitative ones in the presence of organizational and individual barriers. Lack of support and resources are majors organizational and lack of knowledge as individuals. In addition to a new barrier as cultural in Chinese population.

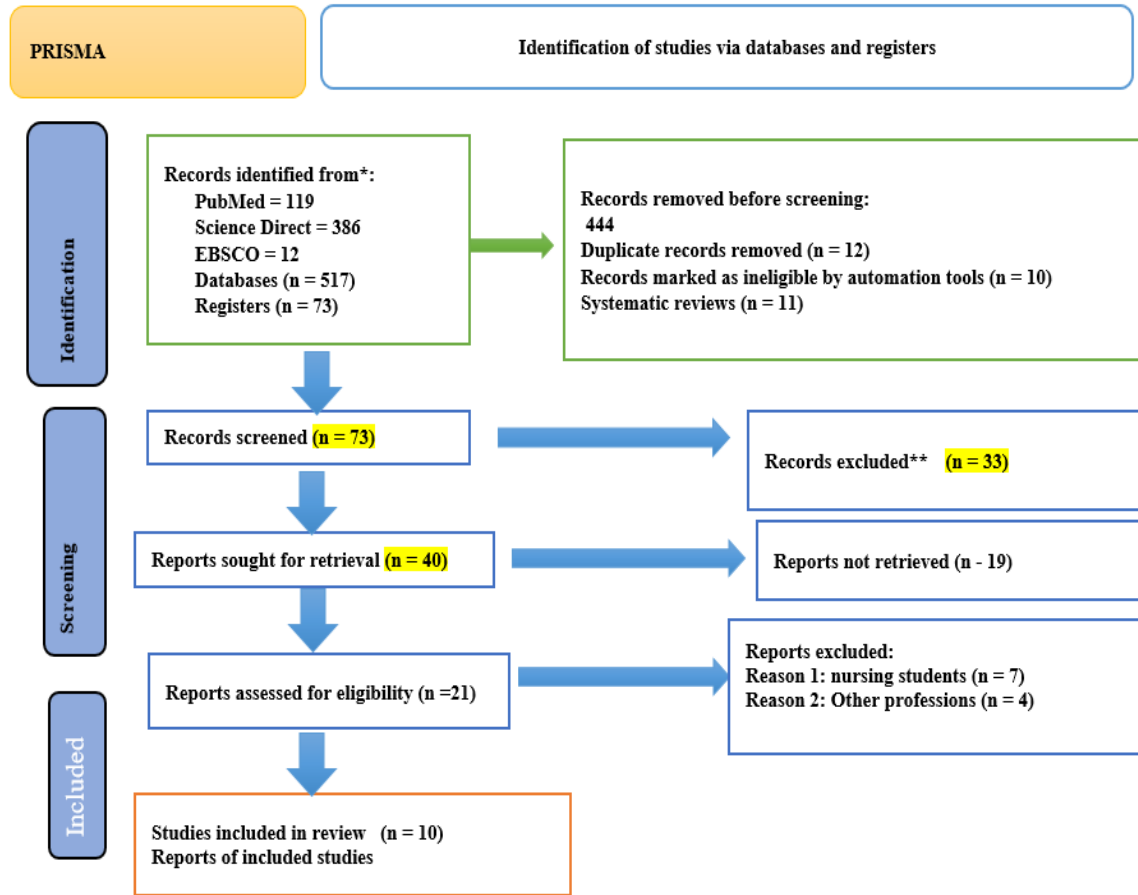
The mixed studies:

A study used a quantitative approach to determine the degree of knowledge, attitudes, and behaviors among Ghanaian RNs, while a qualitative helped them understand the barriers that prevented RNs from fully practicing EBP (Atakro et al., 2020). EBP barriers perceived to be related to institutions and to nursing jobs. The nurses' dependency on senior colleagues for EBP practice could be due to a variety of barriers that they believed were hindering EBP implementation. A lack of resources, internet access and poor EBP standards were the main challenges.

According to **(Cline et al., 2019)**, there is no statistically significant differences on the BARRIERS scale among pediatric nurses in Florida. Findings in this study revealed insufficient time to put new ideas into action, insufficient time to read, and an overwhelming volume of research, lack of knowledge of research, difficulty understanding statistical terms, and incapacity to evaluate research quality. In addition to a lack of resources in the two publications, there are time and knowledge hurdles in the American study.

Almost all of the studies revealed comparable results in terms of EBP barriers, with minor variances in the impact of the barriers' rank order. The findings of the ten studies revealed that the majority of nurses regarded a lack of time as one of the most significant barriers to EBP implementation in their clinical practice, followed by a lack of support, a lack of EBP knowledge, and resistance to change.

This suggests that the issue is global and not specific to a single country or health-care system. Regardless of the origin, this result might also be interpreted as underscoring the enormous disparities. Nurses deliver care based on previous experience and successful outcomes rather than research, which may reduce efficiency and patient outcomes while also increasing costs.



Discussion:

This review was derived from 10 articles according to PRISMA method. The articles consisted of different methods, countries and continents of the world, in addition to different health care systems. All of the articles categorized the barriers to EBP implementation into organizational and individual levels. Lack of time and support were more prominent in according to organizational level. Insufficient knowledge and skills were the big individual barriers.

Regarding the issue of lack of time (AbuRuz et al., 2017; Al-Maskari et al., 2018; Aljezawi et al., 2019; Cline et al., 2019; Fry et al., 2018; Zeb et al., 2018), it was clear through studies that the majority of nurses suffer from. In some countries, the reasons are due to over workload as well as insufficient nursing staff (AbuRuz et al., 2017; Aljezawi et al., 2019). A shortage of skilled nurses may also result in greater workload and poor time management (Al-Maskari et al., 2018; Fry et al., 2017). Lack of autonomy was clear among Pakistanian nurses (Zeb et al., 2018).

Most of nurses were unsupported; this issue come either from institution itself or from colleagues especially physicians (Abdulwadud et al., 2017; Hoyiso et al., 2018; Zeb et al., 2018). Most of studies emphasized on infrastructures problems (Abdulwadud et al., 2017; Atakro et al., 2020; Fu, et al., 2020). Because acquiring evidence is difficult, some nurses believe finding and evaluating evidence is more difficult than changing practice (Fry et al., 2017).

Several nurses assumed that change process will have a minor impact (Hoyiso et al., 2018), in addition to lack of motivations. The nature of nurse's knowledge and skills were clear in difficulty to handle researches, and a problem in analyzing statistical results beside some kind of illiteracy in computer skills (Cline et al., 2019).

Conclusion: According to the findings of the ten studies, the majority of nurses has a lack of time as one of the most significant barriers to EBP adoption in their clinical practice, followed by unsupported institutions, lack of EBP knowledge, and individual resistance to change. This suggests that the issue is broad and the presence of mismatching between research and practice, regardless of the cause.

Implications: Managers could support the development of EBP by allowing nurses time and resources to enhance their skills related to EBP. Training and continuous education to increase nurses' knowledge and skills.

Introducing in-service classes and conducting professional development sessions. Nurses autonomy is a major issue to be taken in mind and working by institutions to encourage and validate. Adopters must know each other's roles and workload in order to implement an idea within a multidisciplinary team. Nurses need support from the organization and/or senior colleagues. Organization can improve infrastructures including research resources.

Limitations: There are just a few databases that can be used to find possibly eligible studies. This review came from different countries with different health care systems, cultures, economies. However, the aspect that this review only looked at the viewpoints of staff nurses and excluded managers and institutional authorities may be a limitation.

Recommendations: Regarding to the importance of EBP in providing nursing professionalism, patient quality of care and institutional cost effectiveness, it is highly recommended to conduct study in Palestine to assess what are barriers that confront Palestinian nurse to implement EBP in their hospitals and medical centers.

Table 1: Summary of selected articles

Article	Method	Country	S. Size	Results
(Abdulwadud et al., 2017)	Qualitative	Zambia	23	Lack of administrative assistance, poor infrastructure and a lack of resources, lack of computer skills, motivation, resistance and limited opportunities for professional development.
(AbuRuz et al., 2017)	Quantitative Cross sectional	Jordan	500	Insufficient time and resources to change, nursing shortages, workload, and a lack of database resources.
(Aljezawi et al., 2019)	Quantitative Cross sectional	Saudi Arabia	195	Insufficient time to read research, irrelevant research to the nurse's practice, increased workload
(Al-Maskari et al., 2018)	Quantitative Cross sectional	Oman	128	Lack of EBP knowledge/skills, time, and resources
(Atakro et al., 2020)	Mixed	Ghana	150	A lack of resources, internet access and poor EBP standards
(Cline et al., 2019)	Mixed	USA	890	Insufficient time to put new ideas into action, overwhelming volume of research, lack of knowledge of research, difficulty understanding statistical terms, and incapacity to evaluate research quality
(Fry et al., 2018)	Quantitative Cross sectional	Australia	204	Lack of time, managerial support, training services, and difficulty getting evidence
(Fu, et al., 2020)	Qualitative	China	45	Gap between evidence and clinical context and decreased sources, lack of knowledge and skills and poor compliance, poor ward atmosphere, lack of leadership, resources and support from other health-care professional
(Hoyiso et al., 2018)	Quantitative Cross sectional	Ethiopia	333	Resistance to change , Uncooperative physicians, No incentives
(Zeb et al., 2018)	Quantitative Cross sectional	Pakistan	97	Lack of time, autonomy, and unsupportive organization

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References:

- ❖ **Abdulwadud, O., Nyareza, S., Malasha, F., & Mthoniswa, J. P. (2017).** Relevance & barriers to evidence-based practice in Zambian Defense Force: a qualitative analysis of roundtable group discussion by military health personnel. *ARC J of Nursing & Healthcare*, 3(1), 1-11.
- ❖ **AbuRuz, M. E., Hayeah, H. A., Al-Dweik, G., & Al-Akash, H. Y. (2017).** Knowledge, attitudes, and practice about evidence-based practice: a Jordanian study. *Health Sci J*, 11(2), 1.
- ❖ **Aljezawi, M., Al Qadire, M., Alhajjy, M. H., Tawalbeh, L. I., Alamery, A. H., Aloush, S., & ALBashtawy, M. (2019).** Barriers to Integrating Research into Clinical Nursing Practice. *Journal of nursing care quality*, 34(3), 7-11.
- ❖ **Al-Maskari, M. A., & Patterson, B. J. (2018).** Attitudes towards and perceptions regarding the implementation of evidence-based practice among Omani nurses. *Sultan Qaboos University Medical Journal*, 18(3), 344.
- ❖ **Atakro, C. A., Atakro, A., Akuoko, C. P., Aboagye, J. S., Blay, A. A., Addo, S. B., ... & Sarpong, Y. G. (2020).** Knowledge, attitudes, practices and perceived barriers of evidence-based practice among Registered Nurses in a Ghanaian Teaching Hospital. *International Journal of Africa Nursing Sciences*, 12, 100204.
- ❖ **Cline, G. J., Burger, K. J., Amankwah, E. K., Goldenberg, N. A., & Ghazarian, S. R. (2019).** Targeted education and trends in pediatric nurses perceptions of barriers, facilitators, confidence, and attitudes toward research and evidence-based practice over time. *Journal for nurses in professional development*, 35(2), 76-84.
- ❖ **Fry, M., & Attawet, J. (2018).** Nursing and midwifery use, perceptions and barriers to evidence-based practice: a cross-sectional survey. *International journal of evidence-based healthcare*, 16(1), 47-54.
- ❖ **Fu, Y., Wang, C., Hu, Y., & Muir-Cochrane, E. (2020).** The barriers to evidence-based nursing implementation in mainland China: A qualitative content analysis. *Nursing & health sciences*, 22(4), 1038–1046. doi:<https://doi.org/10.1111/nhs.12763>
- ❖ **Hoyiso, D., Arega, A., & Markos, T. (2018).** Evidence based nursing practice and associated factors among nurses working in Jimma zone public hospitals, Southwest Ethiopia. *International Journal of Nursing and Midwifery*, 10(5), 47-53.
- ❖ **Zeb, A; Riaz, M; Emmanuel, S; Rehman, N; Qudrat, S; Rubina. (2018).** Barriers to Evidence Based Nursing Practice in Tertiary Care Hospitals of Peshawar, Pakistan. *Biomedical Journal of Scientific & Technical Research (BJSTR)*, 8(1)