

How Far is The Implementation of Evidence-Based Practice in Midwifery Care?

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Abstract

The results of the study become the important evidence-based information on quality health care. Evidence-based practice (EBP) provides knowledge and skills that influence midwives in assessing, making decisions, and behaving in clinical practice. However, the implementation of EBP still finds barriers and must be resolved through the best strategy. The research aims to synthesize research articles that explore the implementation of evidence-based practice in midwifery care. A scoping review method adopts the Arksey and O'Malley framework (2005) in 5 stages. Inclusion criteria are original articles published between 2009-2019 in English or Indonesian. The database uses PubMed, EBSCO, ScienceDirect, ProQuest, Wiley, and search engines (Google Scholar). The critical appraisal in this study uses Joanna Briggs Institute to measure the quality of each article reviewed. The researchers synthesized 11 articles that reviewed the implementation of evidence-based practices according to the criteria. There are 6 articles from developed countries and 5 articles from developing countries. Five themes found in the study include knowledge sources, influencing factors, benefits, barriers, and strategies in implementing evidence-based practice. Midwives' low attitudes and beliefs to implement changes in practice are seen as the major obstacle. This is due to the limited knowledge and skills in utilizing the results of research as the best evidence. Moreover, there are not many articles that discuss strategies to improve skills and knowledge in finding, understanding, and criticizing research results in midwifery care. In addition, researches on the implementation of EBP in midwifery care are still limited. Therefore, strategies are needed to increase the knowledge and skills of midwives in finding, understanding, and criticizing research results. One way is providing ongoing training and evaluation both before and after training.

Keywords: *midwives, implementation, evidence-based practice, midwifery care*

1. Introduction

Globally, infant mortality rate has declined from 65 to 39 live births in 2018 [1]. Maternal mortality rate (MMR) in developing countries has fallen from 520 to 415 deaths per 100,000 live births in 2017. However, the reduction in MMR is still far from the Sustainable Development Goals (SDGs) target of 70 deaths per 100,000 live births [2]. The lack of EBP in clinical care results in as many as 20-25% of patients receiving potentially hazardous care and 30-40% of patients who do not receive quality services [3]. As many as 32% of cases in the field of midwifery care lead to malpractice [4]. Health workers play a big role in maternal deaths due to insufficient skills and knowledge to carry out the best evidence-based practices [5]. In fact, the use of interventions in EBP has been shown to be effective in reducing stillbirth that is associated with intrapartum and neonatal [6].

The use of evidence-based information provides practice information with better care outcomes for mothers and infants [7-8]. A study revealed that 64% of health workers considered their EBP knowledge to be insufficient and 70% felt their skills in implementing EBP were inadequate [9]. During this time, various efforts have been made to increase the skill and knowledge of using the results of studies. Introducing EBP into the education curriculum, learning about EBP and providing EBP education to stakeholders received good responses to increase knowledge in applying EBP [10-12]. In addition, the involvement of national policy makers, health workers, and patients is considered to advance the teaching and application of

EBP [12-13]. However, implementing changes in evidence-based practice is still challenging [12]. Some of trainings failed due to the lack of experience in utilizing the results of studies and because there was not any pre and post evaluation training provided. Evaluation is done to determine whether the training program actually changes the practice behavior in the use of EBP [12, 14]. The high demand for EBP training is believed to have a positive relationship with attitude and confidence in EBP skills [15].

Strategies are needed to overcome the problem of EBP implementation [11-12]. The strategy is carried out by honing midwife knowledge of EBP through continuously additional trainings as an ongoing process that must be renewed [16]. This was done to create a good learning environment in the use of EBP [11]. This study aims to synthesize research articles that explore the implementation of evidence-based practices in midwifery care from existing literature.

2. Methodology

Scoping review does not strictly limit the terms of literature search, identification of relevant studies or preliminary literature selection, and transparency [17-18]. Scoping review is an approach for mapping broad research topics [19]. The purpose is to identify gaps in the existing research literature [17, 20]. This method is best used when there is literature that informs interesting research questions. However, the findings generated are limited to broad and non-specific scoping questions [18]. This scoping review study adopts the framework of Arksey & O'Malley in 5 stages.

2.1. Stage 1: Identifying the Research Question

Writing research questions must be based on coherent and clear research about what to ask and know [21]. The research question in this study is 'How is the implementation of evidence-based practice in midwifery care?'

2.2. Stage 2: Identifying Relevant Studies

Scoping review identifies various articles through strategies that determine search terms based on terminology, objectives, methodology, quality of reporting detail, and there is no agreement on the need for articles with specific methodologies [19]. The literature search in this study uses PubMed, EBSCO, ScienceDirect, Wiley, ProQuest, and Google Scholar databases. The searching uses a Boolean operator, AND, OR, and NOT to facilitate searching [20] (see Table 1). The search process focuses on the inclusion criteria namely articles published in 2009-2019, in English or Indonesian, full text articles, original articles, and articles that discuss the implementation of evidence-based practices by midwives. Articles containing opinions and irrelevant content will be excluded.

Table 1. PEO Framework to Search Literatures

Population	Exposure	Output/ Theme
Midwives	Evidence-based practice in midwifery care	Implementation
Midwives* OR Midwifery* OR *Health Provider*	Evidence-based practice* OR EBP OR *Evidence Based Medicine* OR *Evidence- Based Midwifery* OR EBM	Implementation* OR Use* OR Barrier* OR Attitude* OR *Factors Influence* OR Evaluating* OR Experience* OR Perception*

2.3. Stage 3: Study Selection

The purpose of the screening process is to assess and identified the relevance of research in search articles [18]. PRISMA flowchart is a recommended reporting method to be adopted in

order to avoid fundamental mistakes in systematic review through 4 stages [21] (see Figure 1). From this process, there were 11 articles included in this scoping review. Joanna Briggs Institute Tools is a valid tool for providing feedback to authors who conduct systematic reviews [23]. From 11 articles obtained, the average value is 85% of articles with very good quality. The results of the assessment can then be used to inform the synthesis and interpretation of the research results [24].

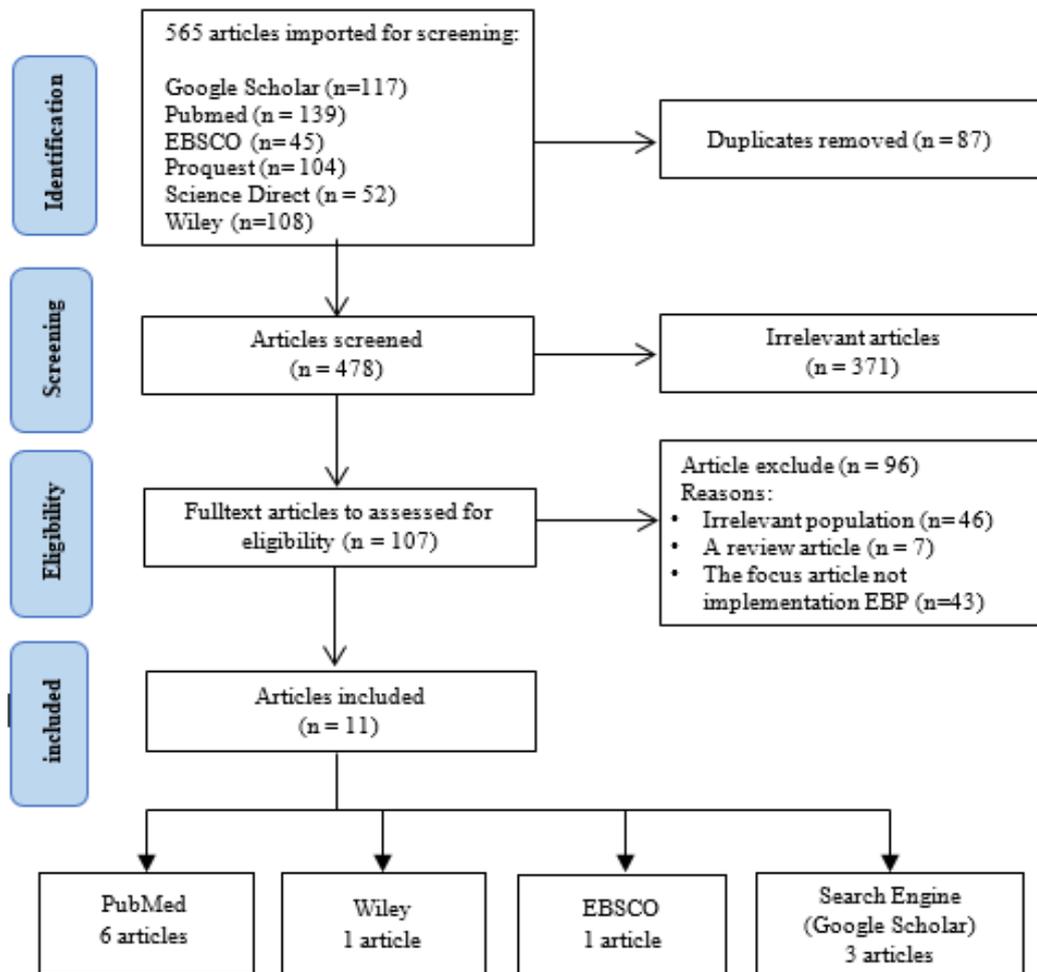


Figure 1. PRISMA Flowchart in Scoping Review

2.4. Stage 4: Charting of the Data

Data charting is carried out by identifying general and specific information that is related to the author, year of publication, research setting, population, type of intervention, objectives and research methodology, as well as the important results of each article [17-18]. The preparation is done by reading all articles that are reviewed independently, extracting relevant data and inserting them into tables [22] as shown in Table 2.

3. Results and Discussion

The 11 synthesized articles produce the following article characteristics: the research method and the research settings (see Figure 2). The division of these types of countries is based on the data from WHO [23]. Scoping review studies consist of various types of literature that are further reviewed with certain scope as literature mapping technique that is relevant in certain fields [17]. Based on the 11 synthesized articles, there are 5 theme mappings.

Table 2. Charting of The Data

No	Authors, (Year Published), Study Setting	Aims	Methods and Data Collection	Study Population	Results
1	Teckla, Omoni, Mwaura, Omuga (2010) Kenya	To discover the EBP of episiotomy by midwives.	Mixed-methods Quantitative study (cross sectional) using a questionnaire. Qualitative descriptive study using in-depth interviews and FGD.	Cross-sectional: 48 respondents Qualitative: 35 respondents (nurses and midwives)	Source of EBP knowledge from research reports, journal papers, internet, and other media. The attitude towards EBP: midwives stated that they disagree and highly agree to implement EBP in their daily practices. The ability to review and criticize research literatures is quite satisfactory.
2	Kennedy, Doig, Hackley, Leslie, Tillman (2012) United States of America	To understand the perspectives of midwives about EBP.	Qualitative study (ethnographic study) using individual and small group interviews.	23 midwives	The barriers of EBP are caused by the influential people in this practice, the lack of resources, and the cultural perception. The strategy to promote EBP encourages it to tackle the barriers and change the daily practice to EBP.
3	Fairbrother, Cashin, Conway, Symes, Graham (2014) Australia	To understand the level of skill, attitude, and barriers in EBP	Quantitative Study (Cross-sectional) with DEBPQ	As many as 169 samples (nurses and senior midwives)	The barriers of EBP are: unavailability of reports, difficulties to find and review literatures, limitation of time to find research reports, lack of self-efficacy to assess the quality of research and change the daily practice.
4	Belowska, Panczyk, Gotlib (2015) Poland	To analyze the knowledge and attitude of professional midwives in using the research results.	Qualitative study using semi-structured interviews and FGD.	58 midwives	The benefits of EBP are such as improving the knowledge and giving new information, helping decide the actions for treatment and improving the practice result. Midwives were not ready to analyze the quality of the literatures.
5	Iravani, Janghorbani, Zarean, Bahrami (2016) Iran	To know the barriers in using evidence-based normal	Qualitative study using descriptive exploratory with semi-structured in-depth	34 participants consisted of 19 midwives, 7 ward directors, and 8 obstetricians	The barriers to implementing evidence-based were the lack of skills and knowledge to review research reports, limitation will to change

		deliveries.	interviews.		the daily practice, and lack of authority to make decisions, unrepresentative facilities, and lack of evidence based policies to encourage the implementation of EBP.
6	Veeramah V (2016) England	To discuss the using evidence-based information in daily practice.	Cross-sectional study using online questionnaire (by email)	172 samples (nurses and midwives)	Most of the respondents stated positive attitudes towards EBP. A number of respondents have access to research through appropriate databases, have internet facility in their workplace and have the guidelines in EBP.
7	Azmoude, Farkhonde, Ahour, Kabirian (2017) East Iran	To discover the level of knowledge, self-efficacy, and practice in the implementation of EBP	Cross-sectional study using EBPO.	76 midwives	There is a significant relationship between the knowledge and the self-efficacy in implementing EBP.
8	Toohill, Sidebothaman, Gamblea, Fenwicka, Debra, Creedy (2017) Australia	To explore the perceptions and experiences of midwives about normal delivery guidelines	Cross-sectional quantitative study using BUMPS and A-EBP-B	249 midwives	The majority of the respondents showed the self-confidence in implementing EBP. However, they feel inferior in determining the research findings, tackling barriers, applying evidences in their practices in timely manner.
9	Fry M, dan Attawet J, (2017) Australia	To know how nurses and midwives implementation evidences in every practice	Cross-sectional study using online questionnaire (by email).	204 respondents (nurses and midwives)	Clinical practice guidelines became the most utilized source by midwives. The benefits of EBP were to increase the quality of service and to renew information. The lack of beliefs and attitudes which change the EBP, lack of time given to the authorities to change regulations, time constrains, lack of manager and colleague's support became the

					barriers of EBP.
10	Azmoude, E Aradmehr, M Dehghani, F (2018) Iran	To explore the midwives' attitudes and barriers in EBP in maternal care	Cross-sectional quantitative study using questionnaire	76 midwives	The implementation of EBP improved the result of care and promoted patient-centered care. The barriers of EBP were time, inadequate facilities, lack of literature compilations, lack of cooperation and beliefs towards authorities in making decisions.
11	Kouchak, Eri, Khojamli, Gorzin, Ghana (2019) North Iran	To investigate the knowledge and practice of midwives related to EBP	Cross-sectional Quantitative study using questionnaire	263 midwives	There was a relationship between the level of education and EBP knowledge. There was a difference between the average level of knowledge and the use of EBP among midwives when their working experiences, even though the relationship is not significant.

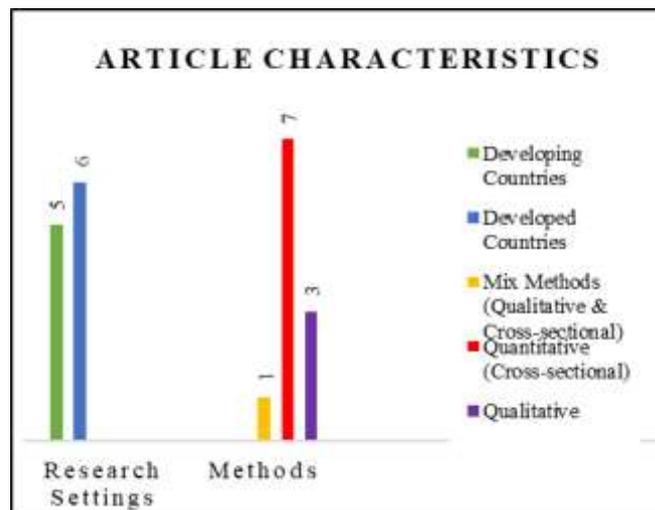


Figure 2. Articles Characteristics

3.1. Themes 1: Sources of EBP Knowledge

EBP information sources are obtained from research reports, publication journals in databases, internet (websites) [24], printed media, information from books [25], magazines in the field of science [26], textbooks and work instructions from related agencies [27]. Researches in France state that the use of evidence-based information sources are 83,4% gained from the monthly care guidelines, 21,3% from the Cochrane library, 47,1% from PubMed, and 6,4% from other databases [28]. There is a significant relationship between printed information sources and the knowledge ($P = 0.008$), self-confidence ($P = 0.002$), and practice ($P = 0.009$) [27]. Many consider that information from colleagues and doctors is valuable source of knowledge [29]. However, other researches state that there is not any relationship between information sources from colleagues or doctors and the level of EBP knowledge, confidence, and practice [26].

The source of information obtained from each patient or client is the most widely obtained source of knowledge [25] by using knowledge, experiences and observations at work to help change practices [30]. This is likely similar to a research in Saudi Arabia revealing that it more often relies on social communication and care experience rather than external sources of information and research evidence [31]. EBP knowledge sources are also obtained from attending conferences or trainings, internet, practice manuals, and policies from related parties [8, 29]. However, the results of other studies state that there is not any relationship between participation in conferences and EBP knowledge, confidence, and practice [26]. Practice manuals used as a source of EBP reaches around 31% [27].

3.2. Themes 2: Factors Influence to Implementation EBP

Factors influencing the implementation of EBP are attitudes and beliefs, education level, knowledge, and experience, as well as facilities (infrastructure and human resources). Attitudes and beliefs become one of the important factors that influence evidence-based practice [13]. Midwives have high confidence in implementing evidence-based practices ($P = 0.001$) [33]. In France and Switzerland, 14.2% of respondents claimed to have used EBP continuously in their every practices, while 15.6% said they used EBP only occasionally. Other respondents stated that they understood about EBP but did not implement it (33.1%), 31.9% had just heard about EBP and 4.0% did not know anything about EBP [28]. There was a relationship between the level of education and EBP knowledge, confidence and practice ($P \leq 0.005$) [26]. However, different studies suggest that there is neither any difference between academic degrees and the utilize of evidence-based in clinical practice nor any relationship between knowledge and the use of EBP by experienced midwives [8, 34]. The availability of computers and internet access is important to look for the latest evidence [13]. Such adequate facilities are expected to be able to assist the implementation of EBP [29].

3.3. Themes 3: Benefits of Implementation EBP

The benefits of implementing EBP are to update information, knowledge and practice; help determine more effective treatment; improve practice, care, and treatment outcomes; as well as assist in making policies or guidelines. From a research in 2018, there are benefits in finding evidence in order to update knowledge and practice (32%) [27]. Another goal is to share information at workplace and expand their knowledge [30]. The research shows that the benefits of searching evidence are to find solutions of certain patient problems (70%) and as guidelines for determining or exploring treatment (67%) [27]. The use of EBP will improve the outcome of fetal care, determine efficient actions, and help determine the appropriate treatments [26]. The development of joint decision making using EBP will help facilitate the relations between patients and doctors as well as improve the quality of healthcare services [8, 33, 35]. The findings of the study help hospital managers and policy makers in strategies development to promote the implementation of EBP in their communities [26].

3.4. Themes 4: Barriers of Implementation EBP

The barriers of EBP implementation according to various studies include the low ability to find information and its implementation, lack of guidelines and policies, lack of confidence to change practices, lack of facilities, low support to change practices, and limitation of time availability to do the practice EBP [8, 26-27, 29, 37]. Inadequate facilities also become another barrier of evidence-based practices [37]. The barriers of the use of EBP in Southeast Asia cover the difficulty in obtaining evidence due to lack of available resources for computers, internet connection subscriptions, and journals as well as low skills in computing access and English [38].

The attitude of midwives towards EBP revealed that 54% disagreed and 2% states strongly disagreed [24]. They felt unsure about starting to change practices, lacking authority in changing practices at workplace, and the existence of team culture that cannot accept any changes [25]. However, other studies revealed positive things related to the capabilities of midwives and nurses [27]. They were confident in the ability to change practices by using evidence that 67.65%. The challenge is the availability of time to search, discover, and read research reports [37, 39] and the use of EBP in practice [24]. 33.7% of midwives felt a lack of support from managers [8] and organizations in providing facilities (infrastructure) and motivation that sometimes caused the failure of EBP implementation in the workplace [27]. Low support from colleagues and doctors is also believed to inhibit the practice [25].

3.5. Themes 5: Strategy of Implementation EBP

The strategy offered in this research to minimize barriers is by providing adequate facilities and human resources [37]. Another strategy is to ensure the availability of evidence-based information in care, in which computers with internet network are easily accessible [8] with a comprehensive literature search system [15]. The researchers also suggest that forming a research network (collaborative research) is one way of developing the implementation of EBP [29]. Providing mentoring by experienced experts in EBP, embracing working environments and supportive managers are believed to increase the practices. It is found out that there is a high demand for EBP training because it has a positive relationship between attitude and confidence in EBP skills [15].

The proactive role of managers in upholding and overseeing evidence-based practices [24] will encourage the use of EBP. Ensuring policy manuals and relevant evidence-based guidelines to local contexts that are accessible for midwives and nurses [8], the availability of training [34] and policies are forms of anticipation toward non-evidence-based practice [36]. It is important to provide education opportunities to support, facilitate and implement EBP as well as hone the knowledge and update evidence-based practices [27]. Managers should be able to make appropriate strategic plan by thinking the influencing factors and obstacles to using EBP in clinical settings [15]. Moreover, midwives should be able to adjust their old practices to the latest evidence-based ones [24]. It is important to create interdisciplinary efforts in order to realize the implementation of evidence-based practices together [33].

4. Conclusion

Evidence-based practice is an effort to provide quality midwifery care using the latest relevant information, so that the services could be conducted more effectively. From various synthesized articles, the study revealed various barriers such as low attitudes and beliefs of midwives in the use of EBP. This is due to the limited knowledge and skills in utilizing the results of research. There are not many articles that discuss efforts to improve knowledge and skills in finding, understanding, and criticizing the research outcomes in midwifery care. In addition, researches that reveal the implementation of EBP in midwifery care in developing countries are still limited. Therefore, strategies are likely needed to change evidence-based practice through increasing the knowledge and abilities of midwives in finding, understanding, and criticizing research results.

One way is through the provision of training that is carried out sustainably and evaluated before and after the training.

One of the limitations in this study is that many articles were not included due to some limitations in the use of accessible data sources. This causes some relevant articles might not be able to be found. Secondly, there have been many published researches on the implementation of evidence based practice, yet, those focusing on midwifery care are still limited. However, there are several strengths of this research, which include the preparation of scoping by using a framework based on theory and the quality assessment in each article reviewed.

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