

## Evidence-based Practice: Perspectives of Academic Community Health Nurses and Primary Health Care Nurses

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**Abstract:** Evidence-based practice (EBP) is an approach that integrates the best current available scientific evidence with the expertise of the health professionals, patient's preferences and values to make decisions about health condition. EBP provides safe and custom-made care that produces the preferred health outcomes, increases the care satisfaction in care recipients, and reduces the cost of health care. Applying of EBP will facilitate deciding about choosing of the most effective program or intervention, and culturally accepted by a community. EBP as a tool for improving the health care quality will serve the long-term goal of improving the quality of primary care and preventive services. It was very important to explore the views of health care professionals about EBP that concluded their willingness to practice it. While the EBP is a new approach for the Egyptian society, the present study aimed to investigate the perspectives of academic community health nurses and primary health care nurses at local level of Dakahlia governorate. Quasi-interventional study design was used with qualitative data collection approach. The study was based on qualitative investigation of the participants knowledge and views about evidence-based practice, before and after a two days training program that gave an intensive overview about the evidence-based practice. Results of the study showed lack of knowledge among participants about EBP that hindered them to give explicit views before attending the training program. The participants attained knowledge that was sufficient enough to portray their views about EBP after attending the training program. They described EBP to be an objective and practical tool that facilitate decision making in daily practice. They mentioned also that EBP is an approach of life-long learning, but it requires a well-established professional environment. The study concluded that providing essential knowledge about EBP enabled community health nurses to portray perspectives about the values and possibilities of its application. They suggested establishing a partnership system between academic nursing institutions and primary health centers to implement EBP. Based on the illustrated findings the study recommended conducting comprehensive training programs on EBP and to community health nurses, providing raising awareness programs to embed the EBP into the organizational cultures of academic institutions and primary health centers, and carrying out further study on establishing the partnership framework between academic institutions and primary health centers.

**Keywords:**

Evidence-based practice, community health, nurses' perspectives

### INTRODUCTION

Nowadays Evidence-based practice (EBP) professionals at academic and field have being processed by healthcare practice settings in making decisions that

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fulfill the quality demands of their practice.<sup>(1)</sup> EBP is as an approach to clinical decision-making that originated in medicine, and has been extended to other health professions. EBP has been defined as "the conscientious and judicious use of current best evidence in conjunction with clinical expertise and patient values to guide health care professionals in decisions making. In other words, EBP is a framework for clinical practice that involve the best current available scientific evidence with the expertise of the health professional and the patient's preferences and values to make decisions about health care."<sup>(2, 3)</sup>

Evidence- based nursing (EBN) does not differ too much from EBP, it was defined as "the effort to combine the best scientific evidence from and other research with the special clinical perspective of nurses in performing the full range of patient care activities pertinent to the nursing profession" <sup>(4)</sup>.

Using of research findings at the setting of care delivery is a core to provide high quality health care services and improve patient outcomes. Health professionals expect to use the research finding of rigorous studies, while the accumulation of research illustrating that some interventions appear to be more effective than others. Therefore, the EBP is a mean for the intended quality care. EBP provides safe and custom-made care that produces the preferred health outcomes and increase the care satisfaction in patients and families, as well as decreasing the cost of health care organizations <sup>(5-7)</sup>.

The required skills for EBP in health care is acquiring the evidence, appraising the evidence and applying the evidence, which are encompass the four steps of EBP. These four steps of EBP include formulate an answerable question, track down the best evidence of outcomes available, critically appraise the evidence and apply the evidence<sup>(4, 8, 9)</sup>.

In public health, the evidence- based practice was defined as "the process of integrating science- based interventions with community preferences to improve the health of population" <sup>(10)</sup>. Applying of EBP in community/ public health is very useful to formulate a choice of which program or intervention that would be more effective and culturally accepted by a community.<sup>(11)</sup> Moreover, EBP fulfills the demands of community health practice on the issue of updating the knowledge of health care professionals <sup>(12)</sup>.

EBP improves the process and the effectiveness of care and health outcomes at primary health care services and programs within the scope of community health fields such as (school health units, occupational health settings, chronic illness management, and control of diarrheal and acute respiratory diseases, as well as children's immunization schedules, and screening for antenatal care). The effectiveness of these programs is deadly

depends on the competency of health professionals in accessing evidence-based information necessary for decision making<sup>(13- 14)</sup>.

The Egyptian Ministry of Health and Population has articulated a long-term goal to improve the quality of primary care and preventive services and the skills of health professionals <sup>(13)</sup>. This goal could be acquired by integrating the EBP to the other attempts of improving quality of care within a political agenda <sup>(15- 16)</sup>.

In academic field, academic nurses play three different but interrelated roles that are educators, researchers, and collaborator partners with field practice personnel, which require application of EBP <sup>(17)</sup>. Therefore, they should be skillful in EBP, which considered as integral aspect of educational interventions. EBP also is important for academics to develop evidence- based curricula that must be current and relevant to the dynamic changes of health care system.

Furthermore, they have to embed the concept and skills of long life learning in nursing students through teaching EBP course, which became essential a standardized competency for nursing graduates<sup>(18-20)</sup>. Therefore, academics are cues that motivate, educate, and support clinicians in research-based culture, as well as collaborate with them in conducting researches<sup>(17)</sup>.

Accordingly, nurses need to be well prepared to access the available best evidence to identify, develop, and disseminate the appropriate guideline and/or other format of evidence application. The most effective approach to meeting this crucial need is to develop collaborations among nurse researchers, practicing nurses, and the professional organization<sup>(21-23)</sup>. However, in many countries nurses have been reported several barriers that constrain them from carrying out evidence-based practice as mentioned by Brown et al 2009. These

barriers are lack of time, autonomy over nurses' practice, lacking in skills of finding and assessing evidence, access to evidence, and need for guidance throughout the implementation process<sup>(24)</sup>.

International studies revealed different nursing views about EBP that concluded their willingness to practice EBP. Challenges and lacking for EBP skills and facilities were also mentioned<sup>(25)</sup>. It cannot be assumed that the views about EBP reported by other countries are the same prospected by Egyptian nurses. So that it was important to adopt a qualitative approach to investigate the perspective of Egyptian nurses about introducing EBP into academic and field practice of community health nursing.

#### **Study aim:**

This study aimed at investigating the perspectives of academic community health nurses and primary health care nurses about evidence-based practice EBP at local level (Dakahlia governorate).

**Perspective inquiries:**

1. What do academic community health nurses and primary health care nurses know about evidence- based practice?
2. How do academic community health nurses and primary health care nurses feel about evidence- based practice?
3. What are the views of academic community health nurses and primary health care nurses about the application of evidence- based in daily practice?

**MATERIAL AND METHODS****Material****Study design:**

Quasi-interventional study design was used with qualitative data collection approach. While the evidence- based practice (EBP) is a new approach for the Egyptian society, this study was based on qualitative investigation of the participants' knowledge and views about EBP, before and after a two days training program that gives a comprehensive overview about the evidence- based practice EBP.

**Setting:**

The study was conducted at the Faculty of Nursing, Mansoura University and primary health care centers affiliated to Ministry of Health (MOH), Dakahlia governorate.

**Subjects and sampling:**

The convenient sampling technique was used throughout this study. The study subjects represent two categories; the first category included all academic community health nurses working at the community health nursing department, faculty of nursing Mansoura university (n=14). The second category included primary health care nurses working at primary health care centers assigned by MOH directorate, Dakahlia governorate (n=12). Firstly, the MOH directorate assigned 40 nurses to participate in the study who were on duty at the study time. Out of the forty nurses, only 12 nurses who have computer and English language skills decided to continue the program and to

participate in the study. While the rest of nurses found it too difficult to follow the sequence of the training program.

#### **Tool:**

##### **Semi- structured interview sheet:**

Semi structured interview was used to explore the knowledge and perception of participants regarding the application of EBP in community health nursing.

#### **Methods:**

##### **I- Preparatory phase:**

###### **1- Ethical consideration:**

The proposal of this study was approved by:

1. The Community health Nursing department's Committee and the dean of Faculty of Nursing approved to conduct the study and to hold a two days training program EBP
2. The faculty research ethics committee
3. Ministry of Health: Official approval from the MOH directorate was obtained to join primary health care nurses in the study.
4. Informed written consent of participants was obtained. The participants were all

informed that all the obtained information would be considered confidential and analyzed anonymously.

##### **2- Tool development:**

After reviewing the literatures of EBP and studies on views of health professionals about EBP, the semi-interview sheet was developed.

##### **Validity of tool:**

A jury group of three academic nursing staff members who have experience in qualitative research revised the semi-structured interview sheet.

A pilot study conducted on three faculty staff members and two nurses to test the validity of the tools.

Based on the jury group's opinion and the findings of the pilot study, modifications were made.

##### **3- Designing and implementation of the EBP training program:**

The training program was consisted of five sessions throughout two days, with total of 11 hours (Table1), different

teaching and learning methods were used, group discussion, self-study, computer which included interactive lecture, small hands on practice and role-play.

**Table 1: Sessions of evidence- based practice training program**

Sessions	Content
The first session	Introduction to the concept and skills of evidence- based practice
The second session	Practical training on "formulating answerable question"
The Third session	Practical training on "tracking down the evidence"
The fourth session	A practical training on "critically appraising evidence"
Fifth session	Applying the evidence

### III- Data collection:

Data collection started one week before conducting the training program to collect the base line knowledge and views of participants about the EBP. The interviews were conducted with each participant for 15- 20 minutes to investigate their knowledge and views about the EBP. The brief semi- structured interviews were tape-recorded.

Immediately at the end of the training program, the post knowledge and views were obtained by conducting another brief taped semi- structured interview with participants.

### Data analysis:

Thematic analysis was used to explore

participants' knowledge and views about EBP. The interview transcripts were analyzed to search for common themes, similarities, and/ or variations among students' knowledge and views. Data was coded, identified under categories and subcategories, and organized together under common themes. To boost validity of thematic analysis, three volunteer colleagues reviewed the findings to clarify the analysis in relation to emerging categories and themes <sup>(26)</sup>.

### RESULTS:

The participants of the study consisted of 12 nurses who are working at primary

health care units (PN) and 14 academic staff of community health nursing (AN). The majority of participants' ages ranged from 24 years up to 42 years old (n=17). Regarding to their gender all of them were females and only one participant was male. In relation to their qualification, about two thirds (n=16) had a bachelor degree in nursing, five participants had a master degree, three had PhD degree and two are technical nurses. The participants had years of experience that ranged from 2 years up to 19 years and the majority (n=17) had average of 13 experience years. Only two academic staff members have been attended a session about evidence-based practice (EBP) before.

The results illustrate knowledge and views of participants as the main themes of this study. Quotations illustrating each section are presented with the identifier "AN" if the quote was stated by academic community health nurses and "PN" if the quote was stated by primary health care

nurses.

#### **Knowledge of participants about EBP:**

The knowledge of participants before and after attending the training program was illustrated in Box (1), according to the steps of EBP. Results revealed that participants' knowledge about EBP was weak and superficial before attending the training program. The knowledge of participants improved after attending the training program to a level that enables them to express their views about EBP.

#### **Definition of EBP:**

All PN nurses had no idea about EBP before attending the training program, "*I did not hear about EBP before*" (PN). Only one nurse of PN mentioned that EBP is essential step to provide health care, "*EBP is the first step in providing service to individuals who are seeking for health care*" (PN). This description of EBP nearly provided a meaning of the general idea of EBP, which indicated that health care should be founded by EBP. Therefore, they



were not able to express any opinion about EBP. On the other hand, "AN" had a partial idea about EBP before attending the training program. Most of them (n= 7) described the meaning of EBP closely to its correct definition in terms of integration between research findings and expert experience to solve health problems putting into consideration the patients' values, *"It is integration between research, patient's values, and expert experiences"* (AN). After attending the program the majority of PN (n= 10) became able to describe EBP as tool that links the daily clinical practice and its problem solving process with patients' needs, research findings, and available experiences and resources, *"It is a plan to provide a better health care by studying a problem based on consumer needs"* (PN). While most of AN (n= 11) described completely three components of EBP, which are the patients' values and preferences, clinical experience to be integrated with the best

research, and evidence for decision making, *"It is integration between patients' favorite, experience of health care providers and the best research findings"* (AN).

#### **Steps of EBP:**

Before attending the training program, only two AN participants identified some types of clinical search questions and their components, while the majority of them (n=12) did not know the structure of answerable question, *"I do not know any thing about the searching questions, we use key words to search on the internet"* (AN). They mentioned that searching for evidence could be done directly by using keywords, *"I used to search internet by key words"* (AN). After attending the training program, more than one quarter of participants ("AN" n= 4, "PN" n= 3) became able to enumerate the steps of EBP. Most of PN (n= 10) mentioned that searching internet for recent interventions of specific health problem is one-step of EBP

'Searching internet to find the recent findings in a specific health topic and find how to apply it' (PN). More than one third of participants mentioned the steps of EBP ("AN" n= 5 and "PN" n= 3) identified the structuring process of answerable question by using the 'PICO' principle, "Searching questions stated by PICO...", "(P) is patients,(I) is the intervention, (C) is the control, (O) is the outcomes".

In relation to tracking the evidence, before attending the training program, most of "AN" (n= 11) identified the searching engines such as "Google and Yahoo" as evidence resources that they frequently access. No one identified the level of evidence in relation to the type of research design, while just two participants mentioned that the university offers an access to international database. After attending the training program both AN and PN participants acquired basic knowledge about tracking the evidence. One quarter of participants ("AN" n= 6, "PN" n= 2)

described the tracking down the best evidence outcomes available in terms of identifying the level of evidence in relation to the different study designs. "Systematic review of excremental studies is the least bias"(AN),"Systematic reviews of different study designs are less bias than primary studies" (AN), "Systematic review and guidelines are the most appropriate for actual practice" (PN). They also identified the different sources of evidence: "there are different type website searching engines such as pubmed and Google, EBP resources such as Cochran library","literatures database such as EBSCO, Ovid and science direct" (AN).

Regarding to critical appraisal of the evidence, before attending the training program only two AN mentioned that the tracked evidence should be appraised for its validity. They also pointed out some statistical terms such as confidence interval, odds ratio and relative risk. They mentioned that any articles should include

these statistical terms to ensure the validity of the evidence's results. However, after attending the training program, more than two thirds of participants ("AN" n= 11, "PN" n= 7) described the critical appraisal of evidence as step that the obtained research publication to be analyzed for its appropriateness for the existing situations and available resources. Furthermore, other participants ("AN" n= 5, "PN" n= 2) emphasized on the strength of evidence in terms of study design and results validity, *"The experimental trials are the strongest type of studies"* (AN), *"To appraise an evidence...use a special formats and looks at the aim, research design and results for their strength"* (PN)

As regards to the application of evidence, journal club and clinical guidelines were mentioned by the majority of participants ("AN" n= 11, "PN" n= 9) as methods of EBP application: *"Clinical guidelines, systematic reviews and journal club are methods to illustrate new research findings"* (AN), *"It will be easier if we used clinical guidelines to illustrate evidence"* (PN), *"Journal club will be a good chance for discussing new research results: (PN)*. They mentioned also that needs assessment and administrative support are among the application process of EBP: *"To apply EBP, it requires assessing for the facilities of health centers"*(PN), *"the most common clinical questions should be determined"*(PN), *"Organizational attitude toward change should be evaluated"* (AN).

**Box 1: Knowledge of participants about evidence- based practice before and after attending the training program**

	<b>Before</b>	<b>After</b>
<b>Definition of evidence-based practice</b>	<p>"Apply the research to solve patient's problem, which integrates the best evidence of research, patient's values, and clinical experience" (AN)</p> <p>"Use best research to solve a problem and make decision" (AN)</p> <p>"Making sure that right research results used in right manner" (AN)</p>	<p>"EBP is a practice that depends on research base" (PN)</p> <p>"It is how to determine and solve a problem by scientific searching that based on patient's needs and experience of health care provider and allocated resources"(PN)</p> <p>"Provide services based on scientific facts"( PN)</p> <p>"EBP is using the effective research results to provide nursing intervention, based on patients values" (AN)</p>
<b>Steps of evidence- based practice</b>	<p>"There is three steps....determine the searching questions, searching the internet, and criticize the references" (AN)</p>	<p>"EBP mainly is performed by internet search to find other experiences and apply them"(PN)</p> <p>"EBP started with developing questions that used in searching the database, the collected references are appraised and the results of the appropriate one can be used in daily practice" (AN)</p>
Formulate an answerable question	<p>"The search answerable questions could be asking for intervention, causes, diagnosis, or prognosis, it consists of target population, interventional action, comparison and outcomes" (AS)</p>	<p>"Systematic reviews is the first choice for evidence" (AN)</p> <p>"Observational studies, trails, guidelines are evidence types" (PN)</p>
Track down the best evidence of outcomes available	<p>"I search on the Yahoo and Goggle for collecting references...." (AN)</p>	<p>"To obtain valid references search websites of pubmed and Google EBSCO, Ovid and science direct " "There are special websites for EBP such as Cochrane library" (AN)</p>
Critically appraise the evidence	<p>"It is a critique manner...to ensure that obtained literatures is compatible for the on going study" (AN)</p>	<p>"Apprising means analysis of evidence according a standardized format...the evidence's aim, design, and results should be applicable to the existing situation" (AN)</p>
	<p>"odds ratio, confidence interval, mean and relative risk are statistical terms that usually used to criticize an article" (AN)</p>	
Apply the evidence	<p>"Clinical guideline is the method of applying evidence- based" (AN)</p>	<p>"To apply EBP, the needs of health centers should be identified and existing administrative support" (AN)</p> <p>"Clinical guidelines, systematic reviews and journal club are methods to illustrate new research findings" (AN)</p>

### **Views of participants about EBP:**

Due to knowledge insufficiency about EBP in both PN and AN, they could not able to draw up any views about the EBP before attending the training program. Only three "AN" said that EBP is a useful tool for improving knowledge of researcher and it is difficult to be used by health care providers. Anyhow, after attending the training program participants' views about EBP were categorized in main five themes (Box 2 and Diagram 1.)

1. Perceived values of EBP
2. Required skills for EBP
3. Creating environment for EBP
4. Best method of applying EBP
5. Challenges of applying EBP
6. Conceptual model for implementing EBP

#### **1. Perceived values of EBP:**

The participants perceived the values EBP as an important practical approach that less time consuming than searching the library, although its technical experience requirement. Three PN

mentioned that the most valuable aspect of EBP is patient participation in making decision about health interventions of their health condition, *"Involving the patient in decision making of the provided medical and nursing intervention...and putting into consideration his opinion."* (PN). Both PN (n= 6) and AN (n= 6) perceived EBP as a mean, which keep nurses' knowledge to be up to date; furthermore, it resolves debates among health care professionals about clinical problems in an objective manner in daily work practice: *"It answers the raised questions that may have debates among health care professionals"* (PN), *"EBP makes clinical decision sounds logic"*(AN).

The majority of AN (n=8) mentioned the necessities for adopting EBP and they believe that EBP should be integrated in community health nursing education, research and field practice. More than on third of AN (n=5) consider EBP as an integrated part of individual self- learning process. Other six "AN" added that EBP

will be useful in developing and innovating curricula. Only two "AN" mentioned that they could not able to decide about EBP unless they actually apply it in their daily practice.

### **2- Required skills for EBP:**

More than two thirds of participants ("AN" n= 8 and "PN" n= 10), stated that activating EBP requires health professionals to skillful in using information technology and knowledgeable about statistics: *"Using internet and computer skills are very basics for practicing EBP"* (PN), *"To be competent in statistical analysis is important to judge about a research article"* (AN). Another four PN commented that existing of experienced individuals in EBP is a very important for adopting this approach by health care professionals, *"Skillful persons in the process of the EBP itself is required"* (PN).

### **3- Creating environment for EBP:**

Most of participants agreed that EBP requires a well-established environment

that include information technology infrastructure, namely computers and internet cables. At the same time, the majority of AN (n=12), found that availability of consultation and comprehensive training programs will

foster the committing for EBP. PN indicated that administrative support and allocating time during working day time are essential to sustain EBP implementation, *"I will use EBP but it needs administrative support"* (PN), *"Mangers should allocate time for searching and discussing about EBP"*.

Furthermore, team building and collaborative efforts should be executed between academic institutions and health care settings. This collaborative and cooperative approach was revealed by most of participants (AN n= 12 and PN n= 11), *"experienced personnel to convince health care professionals to apply it"* (PN) *"Scientific support from the faculty of nursing is needed to start EBP in health care units"* (PN), *"It needs collaboration*

*between academic institutions and health care services organization" (AN).*

#### **4- Best method of applying EBP:**

Regarding to the application manner of EBP, the majority of participants ("AN" n= 10 and "PN" n=11) found that journal club is the most applicable way that will embed the culture of EBP and keeping individuals' knowledge up to date, *"To determine a meeting date to discuss the raised problem during Journal Club" (AN).* However, PN added that producing clinical guideline would be a good tool in applying EBP, *"Using developed or developing clinical guidelines is a proper way to introduce evidence into practice" (PN).*

#### **5- Challenges of applying EBP:**

Participants perceived insufficient resources and poor personal interactions to elaborate the application of EBP. Most of

them ("AN" n= 9 and "PN" n= 11) indicated that limited financial resources, inadequate electronic infrastructures and absence of experienced personnel among constrains of adopting EBP in primary health care setting, *"Limited resources will hinder applying EBP there is not enough budgets and personnel who have experience" (PN).* PN viewed the personal interaction among health care professionals is lacking for cooperation and collaboration, as well as be deficient in teamwork deeds, which is crucial requirements for EBP. About one third of "AN" (n= 4) added that the inadequate statistical skills that they have, and are required for critical appraisal might hinder the application of EBP, *"Most of us have poor level in statistical skills....., it is necessary for critical appraisal" (AN).*

**Box 2: Views of participants about evidence- based practice (EBP)**

<b>Perceived values of evidence- based practice</b>	
Applicable	"It is important and needs experiences and extended discussion, but it is applicable" (PN) "It is not time consuming like searching textbooks, or asking a consultant" (AN)
Patient participation	"Database searching is the most useful in EBP that is considered as an action plan based on patient's values and recent scientific reliable results" (PN)
Objective problem solving	"It is a realistic method for problem solving" (PN) "EBP will be useful in the daily clinical practice" (PN) "The searching for recent evidence will accumulate experiences that could be applied to solve further problems" (PN) "Seriously I think to use EBP, it increase information and help in problem solving" (AN)
Updating nursing interventions	"Health care providers will be oriented with the most recent research findings"(PN) "It is very important to use EBP as an essential part when conducting research, educate, or providing nursing interventions" (AN)
Self-learning opportunity	"To learn yourself it is essential advantage of EBP" (AN)
<b>Required skills for evidence- based practice</b>	
Information technology skills	"EBP needs to be skillful in using computer" (PN)
Statistical skills	"EBP require the health care professionals and academic staff to have a good skills in biostatistics" (AN)
<b>Creating environment for evidence- based practice</b>	
Information technology	"Facilities such as computers and internet lines should be provided" (PN)
Consultation and training programs	"To apply EBP, I need consultation resources" (PN) "In more depth training program on EBP"(AN)
Administrative support	"It is needs encouragement from managers for application"
Time allocated	"To implement EBP we need time throughout the working day" (PN)
Teamwork building	"It is easy to apply EBP, but it needs teamwork and cooperation" (PN) "The faculty of nursing may allow staff of health care units to use its computer labs"(AN)
<b>Best method of applying evidence- based practice</b>	
Journal club	"Conducting of Journal club"(PN)
Clinical guideline	"The guideline is the most useful method for applying EBP"(PN)
<b>Challenges of applying evidence- based practice</b>	
<b>Lacking of resources:</b> <ul style="list-style-type: none"> <li>• Financial</li> <li>• Information technology</li> <li>• Competent human resources</li> </ul>	"Lacking for IT skills" (PN) "In field practice, there are inadequate resources of information technology equipments and computer skills" (AN) "I should practice EBP actually to make a decision about it" (AS)
<b>Personal Interactions</b>	"There is lacking of team work and poor communication" (PN)



## **6. Conceptual framework for implementing EBP:**

The study participants suggested a conceptual model that would be used for implementing EBP at community health care settings. The model depends on a collaborative and cooperative approach between the academic nursing institution and primary health centers (PHC).

### **Organizational role:**

A- A contract between academic nursing institutions and primary health centers to fulfill the following:

- Academic nursing institution to permit PN to use the computer laboratories and to access its web database.
- Primary health centers to provide academic nursing institutions with the necessary information for developing research plans and permit conducting research studies at its affiliated health centers

B- Primary health centers to provide administration support for adopting EBP, in

terms of allocating time for nurses to conduct database searching and attend training program and journal club.

Primary health centers to execute efforts for embedding teamwork culture among health care professionals

C- Academic nursing institutions to provide academic staff members with continues and comprehensive training on EBP and its supportive courses (statistics and research methodology)

### **Staff role:**

A- The academic nurses to provide primary care nurses with training programs and consultation in EBP

B- The academic nurses to moderate the journal club sessions

C- The academic nurses to develop and appraise clinical guidelines in cooperation with PN to provide applicable recommendations for field practice

D- Primary health nurses to obtain the necessary information of patients' values and preferences

E- Primary health nurses to implement the approved evidence in caring for patients and consumers

F- The academic nurses to conduct research studies according to the actual needs of stockholders (primary health centers and their consumers)

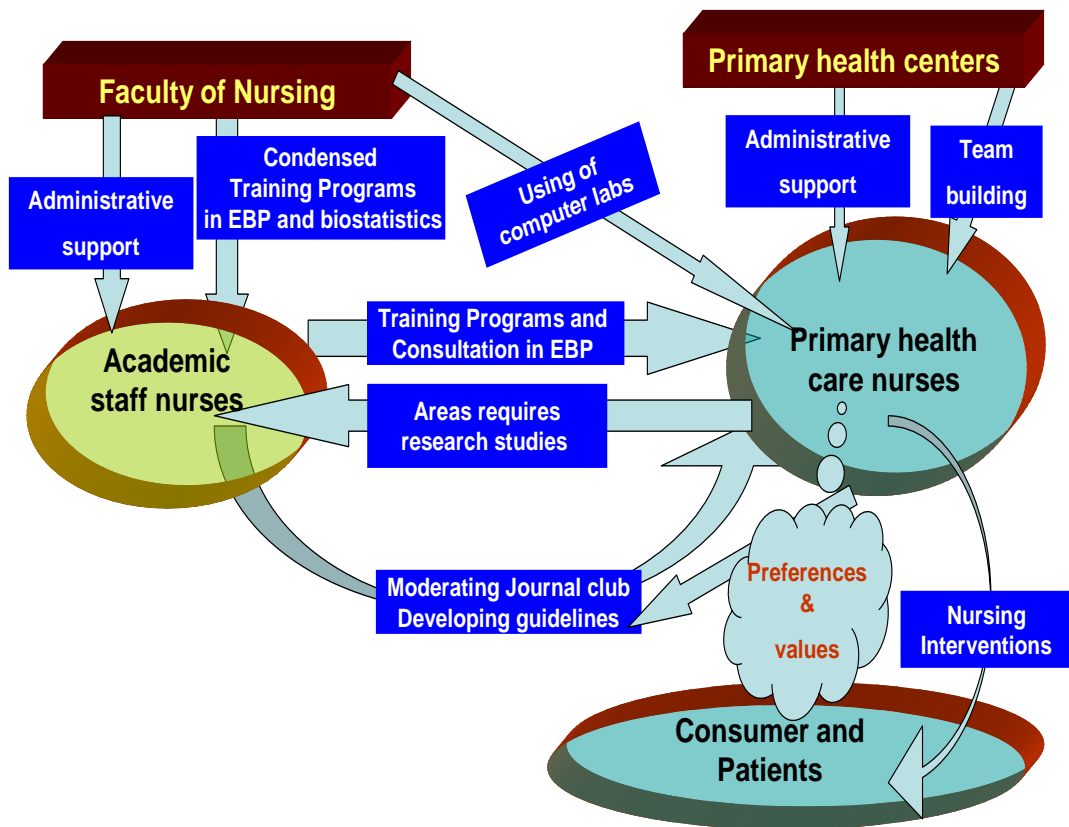


Diagram 1: Conceptual framework for implementing evidence- based practice at community health settings as viewed by community health nurses

**DISCUSSION:**

This study portrayed the knowledge and views of nurses who are working in academic jobs and field practice of community health nursing about evidence-based practice (EBP). To comprehend their perspectives on EBP, it was important to assess their knowledge and expose them to training program. This training program was carried out in two days period to provide immediate education and role-modeling the needs of research utilization to update practice. This approach is agreed by Bromirski H B et al; 2011 <sup>(27)</sup>.

The present study indicated that most of participants had insufficient knowledge about EBP before attending the training program. However, they attained a level of knowledge after attending the training program that was enough to preview about EBP. The gained knowledge in EBP of the present study is similar to the finding of Lotz 2010, who revealed that nurses who received a course of EBP gained the

essential knowledge of EBP <sup>(28)</sup>.

Kouhpayehzadeh et al 2006 also reported that the knowledge of Iranian clinical teachers about EBP was improved after attending interactive workshop <sup>(29)</sup>. Some participants of the present study understood EBP as the utilizing of research to solve clinical problems, while others added the patients' preferences to highlight the proper evidence selection. The description and understanding of EBP among the participants of this study did not differ from the findings of Waters et al 2009. They indicated that midwives and nursing leaders understand EBP as the same as of using research results which are compatible with the context of health care facilities and patient values for clinical decision <sup>(30)</sup>.

The obtained essential knowledge enabled the participants to figure out their perspectives about the values of EBP in terms of applicable and objective approach to deliver nursing interventions with

coordination with patients. Furthermore, they found that using EBP is a tool of long self-learning that updates nursing competency and interventions. EBP was reported to advance nursing practice either for nurse educators or practitioners, as well as it acquires behavioral change at organizational and individual level.<sup>(31)</sup> Moreover, the present study is in agreement with prior Turkish study, which indicated that nurses perceived EBP to accumulate knowledge and provide standardization in care providing <sup>(32)</sup>.

Facilities that assist health professionals in consistently implementing evidence-based care, including confidence on the value of EBP, an organizational culture that supports EBP, mentors that assist well developed information resources infrastructure, and staff development programs.<sup>(33- 34)</sup> The participants of the present study captured the essential requirements to practice EBP, and the proper method of illustrating the

best evidence. Among these necessities, they mentioned information technology appliance, training programs and consultation resources, as well as administrative support and cooperative spirit within teamwork. These views are confirmed by the findings of Cummings et al 2007 and Rycroft 2008 <sup>(35- 36)</sup>.

Participants of the present study preferred clinical guidelines and journal clubs as methods of disseminating the approved evidence. This is confirmed by other studies, which indicated that journal club is used to introduce new evidence into practice and educate health professionals about evidence. As well as literatures reported that using guidelines improve the effectiveness and efficiency of interventions <sup>(37- 38)</sup>.

To acquire organizational support for EBP it is important to assess the learning needs of workforce staff and their perceived needs, and abilities <sup>(24)</sup>. Based on their experience and self-awareness

the participants of the present study determined the hindering factors of EBP that underpinning the worksite environment. Studies all over the world indicated that workload and inadequate time, lack of administrative support are the most frequent barriers of accessing resources for evidence and or conducting meeting to discuss about EBP. Other barriers are lacking for research and critique of the obtained articles as well as lacking for computer skills, in addition to insufficient library and internet access (30, 39-40), These worksite environmental influences were stated in terms of lacking for tools and resources and absence of mentoring and consultants, other authors mention this views previously (24, 41- 42).

The successful transfer of evidence-based innovations to real-world applications requires careful planning, implementation, and on-going evaluation of progress. Actual application of EBP would be implemented with a contextual

environment that includes health care policy and channels of communication. To illustrate this contextual environment it is recommended to use conceptual modeling, which is the process of formally documenting a problem domain for the purpose of understanding and communication among stakeholders (43- 44)

Identification of a well structured framework to guide practice change and adequate mentorship and resources have been recommended by Aitken et al 2011 (45). It was practical to draw up a conceptual framework to implement EBP, which based on the perspectives of the community health-nursing professionals who involved at this study. The designed framework built on a partnership concept between academic nursing institution and primary health centers. This partnership concept mainly depends on the organizational culture that provides administrative support and creating suitable environment for implementing EBP. This in agreement with

several researchers, who have been described infrastructures and models that can sustain EBP. All of these descriptions and models emphasize structuring a proper environment for EBP and integrating efforts of research institutions with clinicians. Some features are underpinning these models that are, creation of expertise leadership, using the "train- of trainer" approach and applying principles of managing change. It was indicated also to involve of endpoint beneficiaries and to evaluate influence of innovated interventions on patients and families <sup>(46- 48)</sup>.

### **CONCLUSION**

The study concluded that providing essential knowledge about evidence-based practice (EBP) enabled community health nurses to portray their perspectives about the values and possibilities of EBP application. Participants had positive views about the values of EBP as a strengthen approach to the standardization of decision-making. They obviously

recommended establishing a partnership system between academic nursing institutions and primary health centers to implement EBP.

### **RECOMMENDATIONS**

The study indicated three recommendations about introducing evidence- based practice (EBP):

1. Providing raising awareness programs to embed the EBP into the organizational cultures of academic institutions and primary health centers
2. Carrying out further studies on establishing the partnership framework between academic institutions and primary health centers
3. Providing comprehensive training programs on EBP and supportive courses to community health nurses

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