

Healthcare Professionals' Knowledge and Views toward Evidence-Based Practice Approach

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Abstract: Worldwide, evidence-based practice has become a concern for healthcare professionals, policymakers, and researchers. The integration of evidence into clinical practice is a priority for the healthcare organization. Evidence-based practice improves patient outcomes, promotes consistency of healthcare, and achieves quality. **Aim:** This study aimed to explore healthcare professionals' knowledge and views toward evidence-based practice approach. **Research design:** Qualitative phenomenological study design was used to accomplish this study. **Setting:** The study was conducted at various healthcare organizations ;Mansoura university hospitals, health insurance hospitals, and primary healthcare centers at Mansoura district during the period from December 2017 until July 2018. **Subject and sampling:**Judgmental and quota sampling techniques were used to select the participants who were included 82 of healthcare professionals' who have a bachelor's degree and higher. **Data collection:** Focus group discussion was used to collect data by using open-ended questions that developed to achieve the goal of the study. **Results:** Few healthcare professionals (n=5) were aware of the evidence-based practice concept and its steps. More than half of healthcare professionals were aware of the evidence benefits and less than one-quarter knew only one type of clinical questions. More than one-quarter of healthcare professionals used PubMed in searching for information and less than half of them mentioned that the journal is the source for dissemination of evidence. Moreover, more than half of healthcare professionals viewed that evidence-based practice as a complex approach and they reported that the clinical environment is not supportive of applying this approach. **Conclusion:** We found that healthcare professionals' have a lack of knowledge and negative views toward evidence-based practice approach. This is due to the presence of barriers relevant to the individual, organizational, and patient factors. Therefore, healthcare organizations should seek to provide educational training for improving the knowledge and views of healthcare professionals toward this approach.

Keywords: Evidence-based practice; Health care professionals; Knowledge; Views.

I. INTRODUCTION

Healthcare professional (HCP) refers to the professional individual who researches, studies, advises, and provides preventive, therapeutic, and rehabilitative healthcare services [1]. Evidence-based practice (EBP) is a necessary component in the delivery of healthcare services and is a goal of healthcare organizations [2]. EBP is a problem-solving approach to clinical decisions through the integration of the best available scientific research evidence with clinical expertise, and patients' values [3]. EBP marked a shift in clinical practice among HCPs from the emphasis on traditional practice and opinions of authoritarian persons to base on the best available scientific evidence [4]. EBP provides HCPs with updating scientific knowledge, decreases the variation in clinical practices, and promotes professional development [5].

It is recognized that the integration of EBP in the clinical decision is responsible for 28% of improvement in patient outcomes and increasing patient satisfaction [6]. Moreover, Egypt is one of the developing countries with limited health resources, therefore, the application of EBP could reduce health expenditure by avoiding unnecessary diagnosis and ineffective treatment plan [7]. WHO reported that the integrating the evidence in health services is necessary for achieving the highest health benefits for the maximum number of people and achieving the objectives of universal health coverage [8].

Despite the benefits of EBP, it is not the standard in daily clinical practice [9], in Egypt; HCPs do not have enough knowledge and adequate skills for applying EBP. [10,11]. They usually use knowledge derived from their experience and their colleagues [12]. Furthermore, most of the HCPs do not know how to find the evidence and they find difficulties in applying this finding in clinical practice [10,13]. This reflects the gap between the knowledge and the practice [14]. In spite of this, in the twenty-first century, HCPs are required to have competency in the implementation of EBP to meet the demands of healthcare [15].

EBP required that HCPs should have the competency of these five steps: asking a focused clinical question, searching for the best evidence through different scientific databases, critically appraising the quality of evidence, applying the evidence through integrating evidence with clinical expertise, and patient interests, and assessing the outcomes [16]. Therefore, exploring HCPs' knowledge and views is a basic and necessary step, as having adequate knowledge and positive views are reflected in HCPs clinical practice toward applying EBP in healthcare delivery [17]. Therefore, the current study aimed to explore healthcare professionals' knowledge and views toward the EBP approach.

Aim of the study:

The study aimed to explore healthcare professionals' knowledge and views toward evidence-based practice approach.

The study explored the following questions:

- 1- What is knowledge of healthcare professionals about evidence-based practice approach?
- 2- What are the views of healthcare professionals about evidence-based practice approach?

II. METHOD

2.1. Study Design:

Qualitative phenomenological study design was used to explore in-depth healthcare professionals' knowledge and views toward evidence-based practice approach.

2.2. Setting:

This study was carried out at various healthcare organizations ;Mansoura University Hospitals, Health Insurance Hospitals, and Primary Health Care Units during the period from December 2017 until July 2018.

2.3. Subjects and Sampling Technique

The study subjects included 82 healthcare professionals; head nurses, physicians, dentists, pharmacists, and physiotherapists who have a bachelor's degree and higher. They were recruited from various healthcare organizations to obtain variation in knowledge and views. The required sampling for qualitative research design fall between 60-120 participants.

Recruitment of healthcare professionals:

Judgmental and quota sampling techniques were used to select healthcare professionals' from a different healthcare organizations. The selection was made through contact with the healthcare organizations leaders to coordinate the meeting with healthcare professionals. The eligible participants were 23 head nurses, 35 physicians, 17 pharmacists, 6 dentists, and 1 physiotherapist.

2.4. Study tools :

2.4.1. A structured self-administered questionnaire was used to assess occupational data of healthcare professionals.

2.4.2. Open-ended questions were developed to extract knowledge and views of healthcare professionals through focus group discussion.

A- Open-ended questions were developed by the researcher to explore healthcare professionals' knowledge regarding EBP approach. These questions include:

1. What do you know about the concept of evidence-based practice?
2. What is your knowledge about the benefits of evidence-based practice?
3. What do you know about the steps of evidence-based practice?
4. What do you know about scientific databases and search engines?
5. What do you know about methods of EBP dissemination?

B- Open-ended questions were developed by the researcher to assess HCPs' views toward EBP approach.

1. What is your perspective toward the effect of applying evidence-based practice?
2. Describe the barriers which hinder the application of evidence-based practice approach in a healthcare organization?
3. From your opinion, what are the required facilities for applying evidence-based practice approach in a healthcare organization?
4. From your point of view, what your suggestions toward the most applicable method for applying evidence-based practice approach at a healthcare organization?

2.5. Pilot study:

A pilot study was conducted on 6 healthcare professionals' they did not included in the study sample to evaluate the clarity, applicability, and reliability of the study tools. Also, to detect the required time for data collection. The modifications were done based on the pilot result related to change in the structure of some questions.

2.6. Process of study implementation

The healthcare professionals were invited to participate in this study. The focus group discussion was conducted at the training room in healthcare organization according to healthcare professionals schedule. Each focus group was taken 30-45 minutes due to the nature work of healthcare professionals.

2.7. Data Analysis

The data was illustrated by thematic analysis. The discussion transcripts were analyzed to extract the common themes, similarities, and/or variations among the participants' knowledge and/or views. Data were coded, identified under categories and subcategories, and organized together under common themes. To ensure the validity of the thematic analysis, the researchers met six times to discuss and review the findings to clarify the analysis about the emerging categories and themes.

2.8. Ethical Considerations

An official letter from the Faculty of Nursing, Mansoura University submitted to the administrative authorities in various healthcare organizations for obtaining permission and support during the data collection period. This study was approved by the community health nursing department committee and the faculty research ethics committee. Informed verbal consents were obtained from all study participants. All study participants were informed that all the obtained information would be considered confidential, used only for the research purpose, and analyzed anonymously. In addition, they were informed about their right to withdraw from the study at any time with no reason.

III. RESULTS

Table (1) portrays the personal and occupational characteristics. The majority of HCPs (84.1%) their age ranged from (25 < 35 years) ,78.0% are females, 42.7% are physicians, 28.0 are head nurses,and 20,7 are pharmacist. It was observed that 47.6% of HCPs had experience less than five and more than half of HCPs did not attend a training program related to EBP.

Table 1: Distribution of healthcare professionals according to occupational characteristics

Item	N = (82)	(%)
Age ($\bar{X}\pm S.D$)	30.31±4.61	
< 25 years	4	4.9
25<35 years	69	84.1
35<45 years	8	9.8
>45years	1	1.2
Sex		
Male	18	22.0
Female	64	78.0
Level of education		
Bachelor’s degree (BSc)	52	63.4
Postgraduate degree (MSc, Ph.D, Diploma)	29	35.4
Others	1	1.2
Working condition		
Head nurse	23	28.0
Physician	35	42.7
Dentist	6	7.3
Pharmacist	17	20.7
Physiotherapist	1	1.2
Years of experience		
<5 years	39	47.6
5<10 years	37	45.1
10<15years	4	4.9
15-20years	2	2.4
Attending educational training on EBP		
None	46	56.1
Training program	28	34.1
Workshop	7	8.5
Conference	1	1.2

Part 1: Displays the knowledge of healthcare professionals toward evidence-based practice (EBP) approach. This part includes five main themes as illustrated in box(1).

- Awareness of EBP concept
- Benefits of EBP
 - For healthcare professionals
 - For healthcare organization
 - For patients
- Knowledge of EBP steps
- Scientific databases and search engines
- Dissemination methods of EBP

Part 1: Displays the views of the study participants toward evidence-based practice (EBP) approach. This part includes four main themes as illustrated in box(2).

- Application of EBP
- Barriers of application
 - Individual barriers
 - Organizational barriers
 - Patients barriers
- Facilitators of EBP
- Possible methods of application

A- Knowledge of HCPs' toward EBP approach :

1- Awareness of HCPs toward EBP concept:

It was observed that few of HCPs (n=5) stated the complete theoretical definition of EBP. Also, less than half (n=38) of HCPs stated some components of EBP definition as integrating scientific discoveries and clinical trials in clinical practice: FG1 "*EBP is the performance of clinical practice based on the best scientific discoveries and updated clinical trials*", FG4 "*EBP is applying the best management in clinical practice based on scientific innovations*". In addition, less than one-quarter (n=14) of HCPs defined EBP as a guideline for the clinical practice: FG8 "*EBP is the ideal reference for clinical procedures*", FG13 "*EBP is the standard tool in clinical practices*".

2-Benefits of EBP:

The participants classified it into three subcategories for healthcare professionals, healthcare system, and patients. It was found that about three-quarters of HCPs (n=61) reported that EBP provides a base of scientific knowledge: FG3 "*EBP will provide us with updating scientific knowledge*". In addition, one-quarter (n=20) of HCPs reported that EBP improves clinical practice: FG10 "*Application of EBP approach will help the clinicians in delivering the care in the least time and effort*", and FG12 "*EBP will maintain the consistency among the health professionals*". Furthermore, one of HCPs stated that EBP promotes self esteem: FG6 "*EBP will strength the in making a clinical decision*".

Benefits for the healthcare system:

Less than two-thirds (n=52) of HCPs reported that application of EBP approach will improve the quality of the healthcare services FG7 "*EBP implementation will improve quality and increase organizational reputation*", FG12 "*EBP will reduce the cost spend on ineffective management and help in obtaining financial support from the external volunteers*".

Benefits for patients:

More than half (n=46) of HCPs stated the benefits of EBP for the patients: FG2 "*EBP will improve patients satisfaction*", FG8 "*Application of EBP will help patients from exposure to complications*". FG10 "*EBP will prevent errors in clinical practices*", and FG12 "*EBP application will decrease the staying periods for patients*".

3-Steps of EBP:

Few participants (n=5) mentioned the fifth steps of EBP, less than half (n=35) of HCPs expressed EBP steps as the research proposal steps: FG7 "*We usually start with selecting the interesting topic, determining objectives, describing the methods, collecting data, and analyzing the result to extract the conclusion*". On the other side, more than half (n=44) of HCPs did not have any knowledge regarding EBP steps.

4- Types of clinical questions :

Half of the HCPs (n=41) did not have any knowledge about types of clinical questions. Furthermore, more than one-quarter (n=23) of HCPs mentioned the descriptive type of questions: FG10 "*Our research studies are seeking to assess patients knowledge, practice, and attitude toward a certain disease*", FG2 "*I know that most of the researches are descriptive*". However, less than one-quarter (n=18) of HCPs mentioned only one type of clinical question which is intervention question: FG14 "*Due to our working conditions, we usually seek to evaluate the effect of applying a certain treatment for the patient conditions*", FG15 "*In our research studies, we apply certain intervention according to our specialists or concerns*".

5- Awareness of search engines and scientific databases:

The HCPs mentioned that they used published and unpublished databases. About one-third (n=27) of HCPs were used PubMed: FG3 "I always search on PubMed for obtaining updated scientific articles related to my clinical problems". FG6 "I always search on PubMed for obtaining the most recent reference related to medical topics". Also, more than two-thirds (n=55) of HCPs used Google as the main source for finding the information.

6- Dissemination sources of EBP:

Less than half (n=38) of HCPs mentioned that the journal is considered as a source for EBP dissemination: FG6 "Of course, journals are the best methods for dissemination., we usually used national or international journals for the dissemination of our papers and obtaining acceptance of our thesis ". Furthermore, one-quarter (n=21) of HCPs mentioned that the educational methods are another source for EBP dissemination: FG2 "Educational methods, especially training programs and workshops are considered a basic and common method among HCPs", FG4 "Group discussion and meeting are a common source for presenting a new issue". However, one of the HCPs reported that FG8 "Guideline can be used as a method of evidence dissemination ". In addition, two of HCPs stated that "Online website is common methods for dissemination".

B) Views of healthcare professionals toward EBP approach

1- Application of EBP in clinical practice

More than half (n=46) of HCPs reported that EBP is a complex approach: FG1 "Application of EBP is a difficult approach which requires the provision of highly trained human resources", FG8 "Implementing of EBP is dependent on providing a supportive organizational climate", FG11 "EBP requires a change in all organizational system". Moreover, it was found that less than half (n=36) of HCPs viewed EBP as a beneficial approach: FG5 "EBP is a necessary approach that benefits patients, HCPs, and HCOs", FG4 "As a clinical pharmacist, EBP provides me with an identified position in the organizations", and FG10 "EBP will help in updating our knowledge and guiding our clinical practices "

2- Barriers of EBP application:

HCPs classified barriers into three major subcategories: organizational, individual, and patient factors. It was observed that more than half (n=47) of HCPs expressed that most of the barriers are related to organizational factors: FG2 "Clinical environment is not supportive to apply EBP approach due to a lack of time, and a lack of financial resources", FG3 "The organization did not provide enough computers that may help us to search for new issues", FG7 "Internet access is provided only for physicians, not for nursing staff which decrease our motivation toward the application of a new approach". FG8 "We suffer from lack of supportive policy and lack of change culture in the HCOs". Moreover, about one-quarter (n=20) of HCPs reported that the barriers relevant to individual factors: FG1 "There is a lack of qualified human resources and we did not attend any training to apply this new approach", FG7 "We did not have the knowledge and skills required to apply EBP ", FG14 "We suffer from a shortage of staff that is considered as one of the major barriers". In addition, less than one-quarter (n=15) of HCPs stated that the barriers related to patient factors as FG11 "Poor general condition of the patients may hinder HCPs from applying innovation and make them adhere to the usual treatment plan", FG13 "Patients refuse to apply any trail and in many cases they do not accept to receive care from unfamiliar or new HCP".

3- Facilitators for EBP application:

It was found that the majority (n=73) of HCPs suggested that the healthcare organization should provide the necessary resources for EBP application: FG2 "The healthcare organization should provide internet access for HCPs", FG4 " We need enough time for participating in research activities", FG5 "The leader should support change through better allocation of the resources. Additionally, about half (n=40) of HCPs stressed on the role of the healthcare organization in building staff capacity: FG1 "We need a training program on EBP", FG6 "The healthcare organization should increase the numbers of staff to reduce workload". FG8 "The healthcare organization should recruit the HCPs with previous knowledge and skills of EBP", and FG12 "The leader should support collaboration within and outside the organizations".

4- Possible methods of applying EBP:

More than one-third (n=34) of HCPs mentioned that educational intervention is the best common method for applying a new approach among HCPs: FG3 "Printed educational materials are common, easy to use, and applicable in our clinical practices ", FG7 "The healthcare organization should provide periodic training in a rotating method to cover all health workforce for building the capacity of HCPs ". Furthermore, more than one-quarter (n=24) of HCPs suggested that the guideline is the best method for applying EBP: FG2 "We usually used the guidelines of infection control measures that are supported by the ministry of health ", FG6 "Guideline presents the management process of the disease in an easy manner and we can adopt the guideline in our clinical practices to overcome the obstacles in developing guideline ". Furthermore, one of the HCPs reported that the clinical protocol is an effective method for applying the clinical procedures FG4 "A clinical protocol is an inclusive tool for applying the clinical practices ". From another point, less than one-quarter (n=16) of HCPs did not have any idea regarding methods of EBP application.

IV. DISCUSSION

Evidence-based practice (EBP) has become a vital demand for healthcare organizations (HCO) and healthcare professionals (HCP) [2,18]. Implementation of EBP in clinical decision and policy formulation is a key strategy for improving the healthcare system in developing countries [19]. However, the implementation of EBP remains limited and complicated in HCO [9]. Additionally, there is a lack of utilization of EBP among HCPs [20]. They usually depend on the knowledge they learned in the academic institution without any utilization of the research in clinical practice [21].

This is reflected in the gap between the knowledge and the evidence [22]. Therefore, this qualitative study was conducted since EBP is a new approach in the Egyptian society to explore the knowledge and views of healthcare professionals toward evidence-based practice approach. The finding of this study concluded that there is a lack of knowledge of HCPs regarding EBP approach. In addition, they had negative views of EBP due to the presence of barriers relevant to organizational, individual, and patients' factors.

Concerning the HCPs' attendance of a training program on EBP, this study found that more than half of HCPs did not attend a training program on EBP. This finding could be explained due to workload, lack of time, and lack of the financial resources among HCPs. This result is in line with studies that reported that the majority of the participants did not attend any training on EBP [14,23,24]. This finding conversely due to the provision of the necessary resources for training [25].

Regarding the knowledge of HCPs toward EBP concept, the current study showed that few of HCPs mentioned the complete theoretical definition of EBP. The possible explanation of lack of knowledge is due to a lack of physical and information resources that impede the training of HCPs on EBP approach. The result is similar to the study which found that few of the participants correctly mentioned the definition [14]. In contradiction, the healthcare professionals who had access to scientific databases and training program on EBP were aware of this concept [26,27].

Concerning the knowledge of HCPs with EBP steps. This current study showed that few HCPs correctly mentioned all steps of EBP. This finding is in agreement with the previous studies which showed found that the majority of HCPs did not aware of EBP steps [28- 30]. This finding is contradicted with the study which their participants involved in research activities and apply to practice EBP skills [31]

As regards the HCPs' awareness of the search engines/databases, it was found that two-thirds of HCPs used Google as a common search engine. This is due to a lack of knowledge and skills of the other scientific databases. This result is aligned with the study finding [32] which showed that the participants were utilized Google as a common source for finding the information. In addition, this study found that about one-third of HCPs used PubMed for searching. This result is in agreement with the studies finding which showed that the participants aware of the databases and searching skills as well as, they involved in research activities [31].

Concerning the HCPs' views toward EBP, the findings of this study indicated that more than one-third of HCPs had positive views toward EBP. They reported that EBP is a necessary approach to patients, HCPs, and HCOs. These findings are consistent with the previous studies who found that the majority of HCPs viewed EBP as a necessary and useful approach [33-36]. On the contrary, healthcare professionals viewed EBP as a difficult and complex approach due to a lack of physical and individual resources in healthcare organization [37]. The current study showed that HCPs mentioned three

categories of EBP barriers related to the individual, organizational, and patient factors. Concerning the organizational barriers, more than half of HCPs reported that the most common organizational barrier is a lack of time. This is due to the workload which prevented them from searching the literature. This finding corresponded with the other studies which reported that lack of time is one of the most reported organizational barriers among the participants [38,40]. Conversely, the Egyptian study showed that lack of time is the least of the top four barriers among the participants. These barriers were resistance to change, poor access to research evidence, lack of authority for implementing the research findings, and lack time [41].

Regarding the individual barriers of EBP, HCPs mentioned that a lack of training on EBP, workload, and staff shortage were the common barriers. These findings were explained by a lack of knowledge of EBP concept and its steps due to the lack of a training program on EBP. These results are aligned with the previous studies which showed that the majority of barriers among the participants were related to lack of training on EBP which lead to a lack of knowledge and skills of EBP [31,42,43].

Concerning the barriers relevant to patients' factors, HCPs reported that the patients refused the application of any innovation in the treatment plan. These findings could be explained by a lack of patients' awareness and participation in clinical decisions. As well, the poor general condition of the patients which impedes the application of a new approach. This finding is in agreement with a study that found that the participants expressed that the patients refused the change in the treatment plan and implementation of EBP [44].

As regards the facilitators of EBP, the current study revealed that the majority of HCPs suggested that the HCOs should provide the necessary resources for EBP application as internet access, available time without any clinical assignment, and leadership support. These findings are similar to the study which found that the most facilitators of EBP reported by the participants were the availability of enough time to read and implement research findings, leadership support, and the other necessary resources [45]. Moreover, half of the HCPs in this current study reported that HCOs should build their capacities by providing educational training on EBP. The possible explanation of that is due to the lack of training program on EBP which resulted in a lack of knowledge of EBP. These findings are similar to the studies which indicated that the HCOs should provide training on EBP which helps in increasing knowledge, improving skills, and attitude toward EBP [46-47].

In relation to the possible method of applying the EBP approach. The current study found that less than half of HCPs reported that educational intervention is the best common method for applying and disseminating the EBP approach. This result is similar to the studies which showed that the most common strategy for applying EBP approach is the educational intervention [48]. In addition, more than one-quarter of HCPs mentioned that the guideline is the best method for the applying EBP approach. This finding is similar to the Egyptian study which showed that the guideline was reported as the most method for applying the EBP approach among the participants [49].

V. CONCLUSION

We found that healthcare professionals' have a lack of knowledge toward the concept of EBP. In addition, they have negative views toward EBP approach due to the presence of organizational, individual, and patient factors.

VI. RECOMMENDATION

Based on the findings and conclusion drawn from the study, the following recommendations are suggested:

- 1- Raising the awareness of key leaders and healthcare professionals toward evidence-based practice approach.
- 2- Integrating evidence-based practice in the staff development programs to increase knowledge and improve views of healthcare professionals toward EBP.
- 3- Collaboration between the clinical setting and the academic organization to facilitate the transfer of the new approaches to the clinical environment.

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REFERENCES

- [1] **Sinha, A. G. K. (2019)**. The allied and health-care professions bill 2018: Implications for physiotherapists. *Physiotherapy-The Journal of Indian Association of Physiotherapists*, 13 (1), 1.
- [2] **Aitken, L. M., Hackwood, B., Crouch, S., Clayton, S., West, N., Carney, D., & Jack, L. (2011)**. Creating an environment to implement and sustain evidence based practice: A developmental process. *Australian Critical Care*, 24(4), 244-254
- [3] **Melnyk, B. M., & Pmhn, C. (2012)**. The State of Evidence-Based Practice in US Nurses Critical Implications for Nurse Leaders and Educators, 42(9), 410–417. <https://doi.org/10.1097/NNA.0b013e3182664e0a> (3)
- [4] **El-Sobkey, S. B., & Helmy, A. M. (2012)**. Evidence-based practice and standardized outcome measures: Egyptian physical therapists' beliefs, perceptions and adoption. *World Appl Sci J*, 16(9), 1282-91
- [5] **Seelro, U., Khan, M. S., Tanveer, E., Khan, M., Kumar, V., & Ahmed, M. N. (2018)**. Knowledge and Attitude towards Evidence Based Practice among the Physiotherapists. *International Journal of Contemporary Research and Review*, 9(09), 20602-20609.
- [6] **Aburuz, M. E., Hayeah, H. A., Al-dweik, G., & Al-akash, H. Y. (2017)**. iMedPub Journals Knowledge , Attitudes , and Practice about Evidence-Based Practice: A Jordanian Study General objective and research questions, 1–8. <https://doi.org/10.21767/1791-809X.1000489>
- [7] **Shehata, G. M., Zaki, A., Dowidar, N. L., & El Sayed, I. (2015)**. Critical thinking and attitude of physicians toward evidence-based medicine in Alexandria, Egypt. *The Journal Of The Egyptian Public Health Association*, 90(3), 115-120.
- [8] **Dye, C., Reeder, J. C., & Terry, R. F. (2013)**. Research for universal health coverage
- [9] **Patelarou, A. E., Laliotis, A., Brokalaki, H., Petrakis, J., & Dafermos, V. (2017)**. Readiness for and predictors of evidence base practice in Greek healthcare settings, 35, 64–70. <https://doi.org/10.1016/j.apnr.2017.02.003>
- [10] **Youssef, N. F., Alshraifeen, A., Alnuaimi, K., & Upton, P. (2018)**. Egyptian and Jordanian nurse educators' perception of barriers preventing the implementation of evidence-based practice: A cross-sectional study. *Nurse education today*, 64, 33-41
- [11] **ALLAM, A. E. F. H. (2009)**. Perceptions of physicians and nurses towards evidence-based practice in obstetrics and gynecology departments at Mansoura University Hospitals
- [12] **Stokke, K., Olsen, N. R., Espehaug, B., & Nortvedt, M. W. (2014)**. Evidence based practice beliefs and implementation among nurses: a cross-sectional study. *BMC nursing*, 13(1), 8.
- [13] **Mulenga, C., & Naidoo, J. R. (2017)**. Nurses' knowledge, attitudes and practices regarding evidence-based practice in the prevention of mother-to-child transmission of HIV programme in Malawi. *curationis*, 40(1), 1-8.
- [14] **Alshehri, M. A., Alalawi, A., Alhasan, H., & Stokes, E. (2017)**. Physiotherapists' behaviour, attitudes, awareness, knowledge and barriers in relation to evidence-based practice implementation in Saudi Arabia: a cross-sectional study. *International journal of evidence-based healthcare*, 15(3), 127
- [15] **Cruz, J. P., Colet, P. C., Alquwez, N., Alqubeilat, H., Bashtawi, M. A., Ahmed, E. A., & Cruz, C. P. (2016)**. Evidence-based practice beliefs and implementation among the nursing bridge program students of a Saudi University. *International journal of health sciences*, 10(3), 405.
- [16] **Khodadadi, E., & Ebrahimi, H. (2017)**. Barriers and facilitators of evidence-based practice from the perspective of nurses working in northwestern psychiatric centers of Iran Barriers and facilitators of evidence-based practice from the perspective of nurses who working in northwestern psychiatric centers of Iran 1 PhD, (August). <https://doi.org/10.24896/jrmds.2017536>

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- [17] **Oyesanya, T. O., & Snedden, T. R. (2018).** Pediatric nurses' perceived knowledge and beliefs of evidence-based practice in the care of children and adolescents with moderate-to-severe traumatic brain injury. *Journal for Specialists in Pediatric Nursing*, 23(2), e12209.
- [18] **Baatiema, L., Otim, M. E., Mnatzaganian, G., Aikins, A. D. G., Coombes, J., & Somerset, S. (2017).** Health professionals' views on the barriers and enablers to evidence-based practice for acute stroke care: a systematic review. *Implementation Science*, 12(1),
- [19] **Katowa-Mukwato, P., Mwape, L., Siwale, M. C., Musenge, E. M., & Maimbolwa, M. (2018).** Use of Research Evidence in Policy and Decision-Making: Views, Attitudes and Practices of Health Policy Makers in Lusaka Province of Zambia. *Health*, 10(04), 502.
- [20] **Snibsoer, A. K., Graverholt, B., Nortvedt, M. W., Riise, T., & Espehaug, B. (2018).** Evidence-based practice profiles among bachelor students in four health disciplines: a cross-sectional study. *BMC medical education*, 18(1), 210
- [21] **Eldeeb, G., & Bakeer, H. (2016).** Effect of an Educational Program on Nursing Interns Evidence Based Practice Attitude, Knowledge and Skills. *Journal of Nursing and Health Science (IOSR-JNHS) Volume*, 5, 12-18.
- [22] **Boström, A. M., Sommerfeld, D. K., Stenhols, A. W., & Kiessling, A. (2018).** Capability beliefs on, and use of evidence-based practice among four health professional and student groups in geriatric care: A cross sectional study. *PloS one*, 13(2), e0192017
- [23] **Farokhzadian, J., Khajouei, R., & Ahmadian, L. (2015).** Evaluating factors associated with implementing evidence-based practice in nursing. *Journal of evaluation in clinical practice*, 21(6), 1107-1113.
- [24] **Karki, S., Acharya, R., Budhwani, H., Shrestha, P., Chalise, P., Shrestha, U., ... & Wilson, L. (2015).** Perceptions and attitudes towards evidence based practice among nurses and nursing students in Nepal. *Kathmandu University Medical Journal*, 13(4), 308-315.
- [25] **Ramírez-Vélez, R., Bagur-Calafat, M. C., Correa-Bautista, J. E., & Girabent-Farrés, M. (2015).** Barriers against incorporating evidence-based practice in physical therapy in Colombia: current state and factors associated. *BMC medical education*, 15(1), 220.
- [26] **Claudino, R., de Pietro Simoes, N., & da Silva, T. (2018).** Evidence-Based Practice: a survey of Brazilian physical therapists from the dermatology subdiscipline. *Brazilian journal of physical therapy*.
- [27] **Oluwatoyin, F., Eke, J., Bisola, F. (2015)** Knowledge and Utilization of Evidence-Based Nursing Practice among Nurses of Offa Specialist Hospital, Kwara State. 4(4), 51–62. <https://doi.org/10.9790/1959-04435162>
- [28] **Tolera, B. D., & Feng, H. (2017).** Assessment of attitudes, skills and source of knowledge on utilization of EBP among registered nurses in Xiangya Hospital of Central South University, Changsha, China. *Am J Nursing Sci*, 6(2), 99-112.
- [29] **Enuku, C. A., & Adeyemo, F. O. (2014).** Knowledge, Beliefs and Teaching Strategies of Evidence-based Practice among Nurse Educators/Lecturers in Nursing Institutions in
- [30] **Scurlock-Evans, L., Upton, P., & Upton, D. (2014).** Evidence-based practice in physiotherapy: a systematic review of barriers, enablers and interventions. *Physiotherapy*, 100(3), 208-219.
- [31] **Lafuente-Lafuente, C., Leitao, C., Kilani, I., Kacher, Z., Engels, C., Canoui-Poitaine, F., & Belmin, J. (2019).** Knowledge and use of evidence-based medicine in daily practice by health professionals: a cross-sectional survey. *BMJ open*, 9(3), e025224.
- [32] **Kostagiolas, P. A., Martzoukou, K., Intas, G., & Niakas, D. (2014).** How nurses behave online? Nurses' online information needs and internet seeking behaviour.
- [33] **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), e344.

International Journal of Novel Research in Healthcare and Nursing

 Vol. 6, Issue 2, pp: (1807-1817), Month: May - August 2019, Available at: www.noveltyjournals.com

- [34] Dao, H. T., Pichaiyongwongdee, S., Sullivan, P. E., Prasertsukdee, S., & Apinonkul, B. (2018). Are physical therapists in Viet Nam ready to implement evidence-based practice? A survey. *BMC medical education*, 18(1), 317
- [35] Hadgu, G., Almaz, S., & Tsehay, S. (2015). Assessment of nurses' perceptions and barriers on evidence based practice in Tikur Anbessa specialized hospital Addis Ababa Ethiopia. *Am J Nurs Sci*, 4(3), 73-83.
- [36] Dannapfel, P., Peolsson, A., & Nilsen, P. (2013). What supports physiotherapists' use of research in clinical practice? A qualitative study in Sweden. *Implementation science*, 8(1), 31
- [37] Hisham, R., Liew, S. M., Ng, C. J., Nor, K. M., Osman, I. F., Ho, G. J., ... & Glasziou, P. (2016). Rural doctors' views on and experiences with evidence-based medicine: the FrEEDoM qualitative study. *PLoS One*, 11(3), e0152649
- [38] Ebrahimi, H., Seyedrasooli, A., Khodadadi, E., & Yousefi, F. (2017). Barriers and facilitators of evidence-based practice from the perspective of nurses who working in northwestern psychiatric centers of Iran. *Journal of Research in Medical and Dental Science*, 5(3), 29-36
- [39] Mohsen, M. M., Safaan, N. A., & Okby, O. (2016). Facilitating factors for overcoming barriers facing nurses for research utilization in clinical settings. *Am J of Nurs Research*, 4(1), 13-24.
- [40] Ashri, N., Al-Amro, H., Hamadah, L., Al-Tuwaijri, S., & El Metwally, A. (2014). Dental and medical practitioners' awareness and attitude toward evidence based practice in Riyadh, Saudi Arabia. A comparative study. *The Saudi Journal for Dental Research*, 5(2), 109-116.
- [41] Baiomy, S., & Khalek, E. M. A. (2015). Factors Influencing Effective Implementation of Evidence Based Practice among Nurses in Assiut City Hospitals , Egypt : A Comparative Study, 4(5), 11–19. <https://doi.org/10.9790/1959-04521119>
- [42] Shayan, S. J., Kiwanuka, F., & Nakaye, Z. (2019). Barriers Associated With Evidence-Based Practice Among Nurses in Low-and Middle-Income Countries: A Systematic Review. *Worldviews on Evidence-Based Nursing*, 16(1), 12-20.
- [43] Duncombe, D. C. (2018). A multi-institutional study of the perceived barriers and facilitators to implementing evidence-based practice. *Journal of clinical nursing*, 27(5-6), 1216-1226.
- [44] Tacia, L., Biskupski, K., Pheley, A., & Lehto, R. H. (2015). Identifying barriers to evidence-based practice adoption: A focus group study. *Clinical Nursing Studies*, 3(2), 90-96.
- [45] Al Ghabeesh, S. H. (2015). Barriers and suggested facilitators to the implementation of best practice: an integrative review. *Open Journal of Nursing*, 5(01), 77.
- [46] Almalki, M. (2017). Barriers to and facilitators of research utilisation among nurses in Saudi Arabia.
- [47] Shafiei, E., Baratimarnani, A., Goharinezhad, S., Kalhor, R., & Azmal, M. (2014). Nurses' perceptions of evidence-based practice: a quantitative study at a teaching hospital in Iran. *Medical journal of the Islamic Republic of Iran*, 28, 135.
- [48] Boaz, A., Baeza, J., & Fraser, A. (2011). Effective implementation of research into practice: an overview of systematic reviews of the health literature. *BMC research notes*, 4(1), 212.
- [49] Ahmed, A. I. (2010). Evidence-based practice: Perspectives of academic community health nurses and primary health care nurses. *Bulletin of High Institute of Public Health*, 40(2).