

Nurses' Beliefs and Barriers toward Evidence – Based Practice

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Abstract

Introduction: Evidence Based practice has emerged as an innovation for quality improvement in health care .Having positive beliefs toward EBP and sees its value in healthcare have vital impact on its implementation among nurses and help to overcome their perceived barriers. **Aim:** To determine nurses' beliefs, identifying perceived barriers to the implementation of evidence based practice, Finding out the relation between nurses' beliefs and barriers toward EBP. Design: A descriptive design was utilized. Setting: this study conducted at Ain shams specialized hospital. **Tools:** of data collection: Two tools were used namely evidence based practice beliefs questionnaire, barriers to research utilization questionnaire. **Results:** The majority of nurses had apposite beliefs toward applying EBP hospital, especially beliefs regarding value of EBP. There was a statistically significant relation between age, qualification, and experience in clinical work of nurses and perceived barriers of nurses toward EBP with most common barriers were related to organizational barriers. Conclusion: there was negative correlation between EBP Beliefs Scale and EBP barriers Scale. **Recommendations:** Well prepared evidence based programs, equipped facilities with new informatics infrastructure, Facilitate access to libraries, computers and Internet, establishing research disseminating center, ingrained EBP from nursing curricula, incorporated as a component of the research process, are main steps for implementing EBP.

Key words: Evidence based practice, Nurses beliefs, barriers

Introduction

Evidence-based practice (EBP) has become the predominant model of care that has gained recognition for facilitating the transfer of research evidence into clinical practice. Evidence-based practice is a paradigm and life-long problem solving approach to clinical decision-making that involves the conscientious use of the best available evidence with one's own clinical

expertise and patient values and preferences to improve outcomes for individuals, groups, communities and systems (Melnik & Fineout- Overholt, 2011). Evidence-Based Practice (EBP) has been recognized by health-care institutions as the gold standard for provision of safe and effective health care. The ongoing evolution of nursing as a profession requires the development of EBP

outcomes and nurses' abilities to access and evaluate professional literature. EBP empowers nurses to form innovative learning partnerships with colleagues to nourish and to strengthen critical thinking skills, and to integrate research knowledge in leading best practice (Majid et al., 2011).

The foundation for EBP is the adoption of a large volume of scientifically sound research that has been tested in a way which will allow it to be replicated. Evidence based practice is valuable to nursing because it involves the problem solving process and allows nurses to clearly identify the issue or problem based on accurate analysis of current nursing knowledge and practice, search the literature for relevant research, evaluate the research evidence using established criteria regarding scientific merit, choose interventions, and justify the selection with the most valid evidence (Koessl, 2009). Nurses with positive attitudes were more likely to use evidence based research in practice and that nurses who believe that EBP improves patient outcomes provided higher levels of evidence based care. Higher education levels and job title of nurses can be regarded as a significant predictor of knowledge and ability to perform research activities but is not related to willingness to engage in research activities (Tiwaari et al., 2015).

The major barriers reported blocking the implementation of EBP in healthcare institutions are a lack of EBP knowledge and skills in clinicians, a perception that EBP is timely, a belief that EBP is burdensome and organizational cultures that do not support EBP (Majid et al , 2011). The IOM's goal that 90% of healthcare decisions will be evidence-based by 2020 is likely to be realized (Melnyk, Fineout-Overholt, 2011).

Aim of the study

This study aims at investigating the beliefs and perceived barriers that help or hinder nurses to apply evidences in their

practice through: determining nurses' beliefs toward evidence based practice, identifying perceived barriers to the implementation of evidence based practice and Finding out the relation between nurses' beliefs and barriers toward evidence based practice.

Research Questions

The research questions of this study were: what are the nurses' beliefs toward evidence based practice?, what are the perceived barriers to the implementation of evidence based practice? And is there a relation between nurses' beliefs and barriers toward evidence based practice?

Subjects and Methods

Design and Setting:

A descriptive design was used in carrying out the study. **Sample Type:** Purposive sample was used. The study was conducted at Ain shams specialized hospital which is a University Teaching Hospital affiliated to Ain Shams University, Egypt.

Subjects:

The sample of this study was composed of (115) bachelor nurses from (130) bachelor nurses who are working at Ain Shams Specialized Hospital at the time of data collection.

Tools of Data Collection:

A self-administered questionnaire sheet was used to collect the data, The questionnaire consisted of two parts:

Part 1:- Demographic characteristics: such as gender, age, marital status, nursing qualifications, years of experience and training course.

Part 2:-The EBP beliefs questionnaire aimed to measure nurses' beliefs about the value of EBP and their ability to implement

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it. It consisted of 16 items under four subscales sub scales: beliefs related to knowledge, value of EBP, resources and difficulty and time, based on **Melnyk & Fineout- Overholt, (2003)**.

Part 3:-The Barriers to research utilization questionnaire aimed to identifying nurses' perceived barriers toward EBP adopted from **Funk et al. (1991)**, it consists of 29 items divided into four subscales: characteristics of the a dopter, organization, innovation and communication .

2. Methods of data collection:

The study was conducted according to the following steps:

An official letter was issued from the Dean of Faculty of Nursing, Ain Shams University to the director of Ain Shams Specialized Hospital, explaining the aim of the work and expected benefits. Then, the researcher met with the hospital administrator and with the head nurses individually to explain to them the purpose of the study and to obtain their approval and cooperation.

Ethical Considerations

Prior study conduction, ethical approval was obtained from the Scientific Research and Ethics committee of the Faculty of Nursing, Ain Shams University. Oral informed consents were obtained from the participants. They were informed about their right to refuse or withdraw from the study with no consequences. They were reassured about the anonymity and confidentiality of the information collected, and that it would be used for the purpose of scientific research.

Statistical analysis:

Data entry and statistical analysis were done using SPSS18.01 statistical software package. Dates were presented using

descriptive statistics in the form of Frequencies and percentages for qualitative variables, and mean and standard deviations and medians. Qualitative categorical variables were compered using Student t-test and ANOVA. Spearman rank correlation was used for assessment of the inter-relationships among quantitative variables and ranked ones. Statistical significance was considered at p-value <0.05.

Results

Table (1) reveal that The Socio-demographic characteristics of study subjects more than one third of nurses (37.4%) were in the age category of 25 to 30 years with the majority (58.3%) of them where female nurses and half of them (50.4%) were single. As regards nurses qualification the majority of them (85.2%) had bachelor degree .their total experience years ranged between (<1-30)years with a mean \pm (12.3 \pm 7.4).Meanwhile, more than one third of them (41.7%) had attended training course.

Table (2): It shows that the highest Mean and SD was related to " I am clear about the steps of EBP" (3.72 \pm 1.08) meanwhile, lowest Mean and SD (3.59 \pm 1.135) was related to" I know how to implement EBP sufficiently enough to make practice changes". Meanwhile, the highest percentage of disagreement upon" I am sure about how to measure the outcomes.

Table (3)demonstrates that the highest Mean and SD was related to " nurses believed that EBP results in the best clinical care for patients" (4.36 \pm .728), while (90.5%) of them sure that evidence-based guidelines can improve clinical care and (90.4%) also believed that implementing EBP will improve the care delivered to the patients also , from the schedules also (73.9%,62.6%) of nurses believe that critically appraising evidence is an important step in the EBP process and the care delivered is evidence-based respectively.

Table (4) illustrates nurses' beliefs related to resource regarding Evidence based practice. the percentage of the agreement upon beliefs related to resource ranged between (63.4%) for the item " I can search for the best evidence to answer clinical questions in a time-efficient way" and (53%) for the item " I can implement EBP in a time-efficient way". Conversely, the highest percentages of disagreement (30.4%, 28.6%) were upon the items "I can access the best resources in order to implement EBP," that I can overcome barriers to implementing EBP respectively.

Table (5) demonstrates that nurses' beliefs related to beliefs of difficulty and time regarding evidence based practice. Less than half of them (49.5%, 48.6%) believed that EBP took too much time and was difficult respectively.

Table (6) illustrates that nurses' perceived barriers related to characteristics of the adopter regarding Evidence based practice. it demonstrated that the majority of nurses disagreement (86.%) was upon the item "do not see the value of research for practice ",followed by " see little benefit for myself"(80.8%),".The highest percentages of agreements were upon the items " do not feel capable of evaluating the quality of the research "and " isolated from knowledgeable colleagues' (56.5%, 49.5%) respectively. The highest Mean and SD was related to " I'm unaware of the research " (3.0 ± 1.23) meanwhile, lowest Mean and SD ($1.77 \pm .978$) was related to" I do not see the value of research for practice.

Table (7) reflects nurses' perceived barriers related to characteristics of the organization regarding Evidence based practice. It describes the highest percentages of disagreements were upon the items" Administration will not allow implementation"(49.5%). At the other extremes, the highest percentages of agreements were upon the items," The facilities are inadequate for implementation.

"(57.3%).The highest Mean and SD was related to " The facilities are inadequate for implementation."(3.39 ± 1.08) meanwhile, lowest Mean and SD (2.78 ± 1.087) was related to" Administration will not allow implementation".

Table (8) indicates nurses' perceived barriers related to characteristics of the innovation regarding Evidence based practice. It describes the highest percentages of agreements were upon the items research has methodological inadequacies (47.8%), followed by" conclusions drawn from the research are not justified.' (46.0%). The highest Mean and SD was related to " Research reports/articles are not published fast enough."(2.77 ± 1.27) meanwhile, lowest Mean and SD (2.47 ± 1.00) was related to" The research has not been replicated."

Table 9 reflects nurses' perceived barriers related to characteristics of the communication regarding Evidence based practice. It describes the highest percentages of agreements were upon the items" Implications for practice are not made clear"(48.5%), followed by "Statistical analyses are not understandable" (43.3%). On the other hand, the highest Mean and SD was related to " Statistical analyses are not understandable."($3.06 \pm .989$) meanwhile, lowest Mean and SD (2.11 ± 1.25) was related to" The research is not relevant to the nurse's practice."

Table 10 displays less than half of nurses (48.6%) express their opinions' related to other perceived barriers regarding Evidence based practice, meanwhile the rest of them (51.3%)reported no other perceived barriers. The majority of them (67.8%) mentioned they had a lack of confidence to perform the EBP activities, whereas the lowest other barriers (23.2%) was different categories of educational levels among nurses. On the other hand, the highest Mean and SD was related to "have a lack of confidence to perform the EBP activities."(2.97 ± 1.25) meanwhile, lowest

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Mean and SD ($1.4 \pm .898$) was related to" Other organization goals with higher priority are considered rather than EBP.

The figure (1) shows that there is negative correlation between nurses'

perception as regards EBP and their perception about the barriers to implementation of EBP, i.e the more the belief in EBP there are less barriers perceived by this group of nurses, this correlation was highly significant ($p = 0.001$).

Table (1):Socio-demographic characteristics of Study subjects' (n=115).

Items	Frequency	Percent
Gender		
Male	48	41.7%
Female	67	58.3%
Age		
<25 years	23	20.0%
25 < 30 years	43	37.4%
30 – 35 years	28	24.3%
> 35 years	21	18.3%
Mean± SD	$30,4 \pm 7.4$	
Range	<22-48	
Marital status		
Single	58	50.4%
Married	46	40.0%
Divorced	6	5.2%
Widow	5	4.4%
Qualification		
Bachelor	98	85.2%
Master	13	11.3%
Doctorate	4	3.5%
years of Experience		
< 5 years	31	27.0%
5 <10 years	34	29.6%
10< 15 years	28	24.3%
>15 years	22	19.1%
Range	<1.0-30.0	
Mean ± SD	12.3 ± 8.9	
Training courses		
Yes	48	41.7%
No	67	58.3%

Table (2): Nurses' beliefs related to knowledge regarding Evidence based practice in the study sample (n=115).

Beliefs related to knowledge	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
I am clear about the steps of EBP.	23	20.0%	3	2.6%	89	77.3%	3.72	4.0	1.08
I am sure that I can implement EBP.	27	23.4%	11	9.5%	77	66.9%	3.63	4.00	1.14
I am sure about how to measure the outcomes.	31	26.9%	17.4	20.8%	64	55.6%	3.57	3.00	1.13
I know how to implement EBP sufficiently.	26	22.6%	19	16.5%	70	60.8%	3.59	3.00	1.135
I am confident about my ability to implement EBP.	24	20.8%	18	15.6%	73	63.4%	3.67	4	1.183

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Table (3):Nurses' beliefs related to value of Evidence based practice in the study sample (n=115).

Beliefs related to Value of EBP	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
I believe that EBP results in the best clinical care for patients.	2	1.7%	8	6.9%	105	91.3%	4.36	4.0	.728
I believe that critically appraising evidence is an important step in the EBP process.	14	12.1%	16	13.9%	85	73.9%	3.91	4.0	.987
I am sure that evidence-based guidelines can improve clinical care.	4	3.4%	7	6 %	105	90.5%	4.34	4.0	.820
I am sure that implementing EBP will improve the care that I deliver to my patients.	2	1.7%	9	7.8%	104	90.4%	4.32	4.0	.720
I believe the care that I deliver is evidence-based.	14	12.1%	29	25.2%	72	62.6%	3.77	3.00	1.04

Table (4):Nurses' beliefs related to resource regarding Evidence based practice in the study sample (n=115).

Beliefs related to resources	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	No	%	No			
I believe that I can search for the best evidence to answer clinical questions in a time-efficient way.	25	21.7%	17	14.2%	73	63.4%	3.53	4.0	1.05
I believe that I can overcome barriers to implementing EBP.	33	28.6%	28	24.3%	54	46.9%	3.24	3.0	1.01
I am sure that I can implement EBP in a time-efficient way.	28	24.3%	26	22.6%	61	53%	3.38	4.0	.999
I am sure that I can access the best resources in order to implement EBP.	35	30.4%	21	18.2%	59	51.3%	3.27	3.0	1.02

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Table (5):Nurses' beliefs related to Beliefs of Difficulty and time regarding Evidence based practice in the study sample (n=115).

Beliefs of Difficulty and time	Disagree		Neither agree nor disagree		Agree		Mean	Median	SD
	No	%	No	%	No	%			
I believe that EBP takes too much time.	44	38.2%	14	12.1%	57	49.5%	3.1	3.0	1.2
I believe EBP is difficult.	34	29.5%	25	21.7%	56	48.6%	3.1	3.0	1.1

Table (6): Table (12): Nurses' perceived barriers related to characteristics of the adopter regarding Evidence based practice in the study sample (n=115).

Characteristics of the adopter	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
I do not see the value of research for practice.	99	86.%	5	4.3%	12	10.4 %	1.77	1.0	.978
I see little benefit for myself.	93	80.8%	3	2.6%	19	16.5%	2.11	2.0	1.08
I'm unwilling to change/try new ideas.	81	70.4%	7	6.%	27	23.4%	2.23	2.0	1.24
There is no documented need to change practice.	82	71.3%	10	8.6%	23	20.%	2.27	2.0	1.19
I feel the benefits of changing practice will be minimal.	78	67.8%	9	8.6%	27	23.4%	2.35	2.0	1.20
I do not feel capable of evaluating the quality of the research.	39	33.9%	11	9.5%	65	56.5%	2.75	2.0	1.25
I'm isolated from knowledgeable colleagues with whom to discuss research.	45	39.1%	13	13.3%	57	49.5%	2.93	3.0	1.28
I'm unaware of the research.	49	42.6%	17	14.7%	49	42.6%	3.0	3.0	1.23

Table (7):Nurses' perceived barriers related to characteristics of the organization regarding Evidence based practice in the study sample (n=115).

Characteristics of the organization	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
Administration will not allow implementation.	57	49.5%	25	21.7%	33	28.6%	2.78	3.0	1.087
Physicians will not cooperate with implementation.	44	38.2%	39	33.9%	32	27.8%	2.93	3.0	.970
There is insufficient time on the job to implement new ideas.	53	46.6%	11	9.5%	52	45.2%	3.04	3.0	1.072
Other staffs are not supportive of implementation.	42	36.5%	35	30.4%	37	32.1%	2.98	3.0	.995
The facilities are inadequate for implementation.	36	31.3%	13	11.3%	66	57.3%	3.39	4.0	1.080
I don't feel I have enough authority to change patient care procedures.	35	30.4%	21	18.2%	59	51.3%	3.26	4.0	1.080
I do not have time to read research.	40	34.7%	14	12.1%	61	53%	3.14	3.0	1.136
I feel results are not generalizable to my own setting.	33	28.6%	29	25.2%	53	46.6%	3.24	3.0	1.016

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Table (8):Nurses' perceived barriers related to characteristics of the innovation regarding Evidence based practice in the study sample (n=115).

characteristics of the innovation	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
The research has methodological inadequacies.	40	34.7%	20	17.3%	55	47.8%	2.57	2.0	1.171
The conclusions drawn from the research are not justified.	47	40.8%	15	13%	53	46. %	2.55	2.0	1.082
The research has not been replicated.	67	58.2%	27	23.4%	21	18.2%	2.47	2.0	1.006
The literature reports conflicting results.	61	53. %	28	24.3%	26	22.6%	2.54	2.0	1.045
I'm uncertain whether to believe the results of the research.	60	52.1%	22	19.1%	33	28.6%	2.65	3.0	1.129
Research reports/articles are not published fast enough.	55	47.8%	16	13.9%	44	38.2%	2.77	3.0	1.273

Table (9): Nurses' perceived barriers related to characteristics of the communication regarding Evidence based practice in the study sample (n=115).

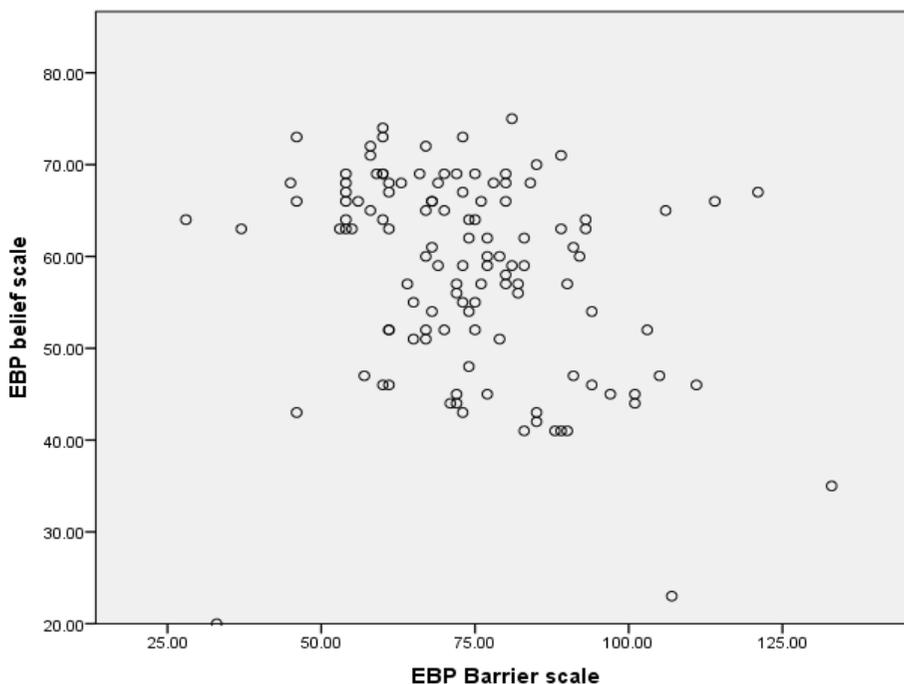
Characteristics of communication	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	No	%	No	%	No	%			
Implications for practice are not made clear.	44	38.2%	15	13.3%	56	48.5%	2.28	2.0	1.199
Research reports/articles are not readily available.	54	46.9%	11	9.5%	50	43.4%	2.91	3.0	1.156
The research is not reported clearly and readably.	53	46.0%	23	20.0%	39	33.9%	2.73	3.0	1.150
Statistical analyses are not understandable.	40	34.7%	25	21.7%	50	43.3%	3.06	3.0	.989
The relevant literature is not compiled in one place.	50	43.4%	23	20.0%	49	38.2%	2.88	3.0	1.156
The research is not relevant to the nurse's practice.	78	67.8%	15	13.0%	22	19.1%	2.11	2.0	1.259

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Table (10): Nurses' opinions related to other perceived barriers regarding Evidence based practice in the study sample (n=115).

Items	Disagree		Neither agree nor disagree		Agree		Mean	Med	SD
	NO	%	NO	%	NO	%			
Different categories of educational levels among nurses.	9	16.0%	3	5.3%	13	23.2%	1.22	1.0	.674
Other organization goals with higher priority are considered rather than EBP.	7	12.5%	6	10.7%	24	42.8%	1.4	1.0	.898
Difficulty in identifying the implication of research findings for one own practice.	5	8.9%	8	14.2%	19	33.9%	1.86	1.0	.985
Limited organizational budget for acquisition of updated data base.	6	10.7%	9	16.0%	29	51.7%	2.31	2.0	1.09
Limited organizational budget for training on EBP.	8	14.2%	5	8.9%	32	57.1%	2.65	2.0	1.18
Lack of confidence to perform the EBP activities.	6	5%	4	7.1%	38	67.8%	2.97	3.0	1.25

Figure (1): Correlation between nurses EBP belief scale and its barriers.



Discussion:

Evidence-based practice (EBP) has become the gold-standard of care in the nursing discipline today. Healthcare and educational institutions need to shift focus on EBP. Subsequently, health professionals are expected to possess the competency in the implementation of EBP to meet the demands of the health care system in this twenty first century (Cruz et al., 2016).

This study was aimed at investigating the beliefs and perceived barriers that help or hinder nurses to apply evidences in their practice through: determining nurses' beliefs toward evidence based practice, identifying perceived barriers to the implementation of evidence based practice and finding out the relation between nurses' beliefs and barriers toward evidence based practice.

The findings indicated that there was negative correlation between the EBP Beliefs Scale and the EBP barriers Scale, which indicated that the stronger beliefs a nurse had in EBP the lower barriers, will be reported regarding EBP implementation. This suggests that the respondents perceived EBP as very significant to the nursing practice and barriers have minimal effect over implementation of evidence based practice .They think EBP can improve the quality of care that they could provide to their patients.

In congruence with these present study finding, (Malik et al., 2015) in a study in Australia reported that nurses hold positive beliefs toward evidence based practice and perceived fewer barriers and were more proactive about EBP. On the same line (Thorsteinsson & Sveinsdottir, 2014) demonstrated

nurses had positive beliefs in EBP, which they consider important for improving care quality and patient outcomes, regardless of their professional role and practice environment.

Paradoxically, an Irish study indicated that majority of the nurses were not familiar with the term EBP and even had not heard of it and their self-efficacy skills of EBP were poor. They are not sufficiently prepared for EBP because they had somewhat negative beliefs towards EBP and the biggest barrier was difficulty judging the quality of research papers and reports (**Farokhzadian et al., 2015**).

The present study findings revealed that the majority of the participants had bachelor degree. Nurses having higher education such as master or doctorate degree constituted few numbers may be because the hospital did not provide any financial or administrative benefits to those who awarded these degrees. This is against nurses' professional development **come in disagreement**.

Surprisingly, the qualifications of bachelor nurses had no significant association with nurses' beliefs regarding EBP. This might be explained that more than four fifth of them were bachelor nurse only and less than one fifth had have master or doctorate degrees. This is incongruent with (**Bonner and Sando's, 2008**) finding that the level of university education was directly related with nurses' beliefs toward EBP. Moreover **Gerrish et al. (2014)** found that nurses with masters' qualifications more had positive beliefs toward EBP and were better prepared to implement EBP.

The current study sample has also revealed a wide range of experience

years in nursing among the bachelor nurses between five to Fifteen years, it reflects higher maturity and more understanding of nurses' beliefs and investigating perceived barriers regarding EBP due to they had more exposure to the evidence based-information as a part of daily work.

Furthermore **Dalheim et al. (2012)** found that positive relationship between more years of nursing experience and the use of EBP and (**Patelarou et al., 2013; Smith et al., 2014**) mentioned that younger nurses with fewer years in practice showed more positive reactions toward EBP and organizational readiness.

Concerning nurses' beliefs regarding evidence based practice. This study revealed that there is a positive belief between nurses regarding EBP. The majority of them had apposite beliefs toward applying EBP in their clinical setting and they agreed that; application of EBP is necessary in nursing care; research finding is necessary in daily practice and believe that EBP improve the quality of patient care.

This is in agreement with **Maaskant et al. (2012)**, mentioned that nurses highly believed that EBP will improve quality of care. Findings from previous studies indicate that nurses had positive beliefs regarding EBP and nurses' beliefs are associated with the extent to which EBP is implemented. Consequently, attitudes and beliefs can potentially predict future behavior (**Squires et al., 2011; Boström et al., 2013**).

The present study also shown that the highest score of the bachelor nurses' agreement upon beliefs regarding values of EBP. the findings revealed higher awareness of nurses about the

importance of applying evidence into practice .In addition to applying EBP in healthcare setting leads to improving patient safety and quality of services as well as, eliminating undesired practice .

In agreement with this Chinese study (**Zhou et al., 2016**) indicated that nurses positively agreed value of EBP and realized the importance of EBP and accepted the necessity for implementation.

The finding from the present study showed that less than half of nurses believed that EBP took too much time and was difficult. A possible explanation may be that nurses have not been involved in defined EBP activities, and therefore they had no real concept of whether or not EBP was difficult or time-consuming. This finding differs from study conducted in Saudi Arabia (**Hassan, 2016**) indicated that nurses thought that EBP takes too much times to implement in practical setting.

This study was carried out to investigate barriers to research use as predictors of evidence-based practice. The results indicated that the barriers to research utilization had minimal effect over the implementation of evidence-based practice. This might be became evidence based practiced did not be applied in the hospital and bachelor nurses did not have an image for implementation of EBP. This is congruent with study conducted in in southern California, USA, **Brown et al. (2010)** reported that the barriers to research utilization as measured by barriers scale have minimal influence over the implementation of evidence-based practice for most hospital nurses.

Concerning nurses perceived barriers to implement evidence in their clinical setting the most common barriers were; had no sufficient EBP

sources and facilities, there was difficulty about quality of internet researches, had no time for internet search during work, had no authority for change hospital routine, they were isolated from knowledgeable colleagues with whom to discuss research, had difficulty for implication for practice, had difficulty in research methodological, conclusions drawn from the research were not justified, couldn't understand researches statistics & results and they unaware of nursing research.

This is matched with other studies. The top barriers cited were “not having enough authority to change patient care procedures”, “having insufficient time on the job ", lack of resources (**Solomons and Spross, 2010**) and difficulty in understanding statistical analysis were **O'Connor and Pettigrew(2009)** investigated the perceived barriers to implementing EBP for therapists working in southern Ireland. The most significant barrier they reported was the lack of time to search for, understand, and interpret research findings.

Lastly, it was decided to formulate open-ended questions to let nurses share their own thoughts and ideas regarding their perceived barriers toward evidence based practice from different environment and culture view. The findings indicated that less than half of nurses express their opinions' related to other perceived barriers ,meanwhile the rest of them reported no other perceived barriers toward implementing EBP.

The majority of them mentioned they had a lack of confidence to perform the EBP activities .So, it is necessary to provide training to improve their self-assurance, personal effectiveness and leadership skills. This is agreement

with, **Dalheim et al. (2012)** reported that nurses had lack of confidence in their ability to change practice

Conclusion

In the light of the study findings, it can be concluded that, there was negative correlation between the EBP beliefs and EBP barriers, which indicated that the stronger beliefs a nurse had in EBP the lower barriers, will be reported regarding EBP implementation. The majority of nurses had positive beliefs toward applying EBP in their clinical setting. The results indicated that the most common barriers were; that they had no sufficient EBP facilities, there was difficulty about quality of researches, had no time for internet search during work, had no authority for change hospital routine they were isolated from knowledgeable colleagues with whom to discuss research and had difficulty for implication for practice.

Recommendations

In the light of the main study findings, the following recommendations are proposed in order to reduce barriers for implementation EBP.

1. A well prepared evidence based programs should implemented because it has great importance on nurses awareness about research skills and accessibility.

2. Hospital administrators should give nurses sufficient time to learn skills of evidence based practice and encouraged an evidence based practice environment through supporting nurses'.

3- Equipped the health facilities with new informatics infrastructure to

actively pursuing integrate EBP by providing online resources and electronic data based for all nurses at all department to allow them to document, search and get their patient related information and appropriate nursing care.

4- Facilitate access to libraries, computers and Internet for online search of EB nursing practice.

5- A reward system may be needed to help profile innovative practice.

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