

Original Research Article

## Nurses' awareness, perception and barriers for implementation of evidence based practices at Govt. hospital Lahore

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**Abstract:** Evidence based nursing is the process in which nurse is able to make clinical decisions by using the best available research evidence, their clinical expertise and patient preferences. The goal of this study is to gain knowledge about the recent awareness, perception, skills, and barriers for the implementation of Evidence based practices among the nurses of government hospitals Lahore Pakistan. There is approximately, over a half billion dollars per year spent on treatment, and medical follow-ups that did not follow the guidelines of evidence based practices [1]. A quantitative descriptive cross-section research design was used to evaluate nurses' awareness, perceptions and barriers for implementation of Evidence Based Practice in healthcare. A convenient sample of 500 clinical nurses was selected. Tool; a structured questionnaire to collect socio-demographic data such as age, education level, and experiences, nurses awareness, perception and barriers for implementation of evidence based practice. A five-point Likers scale used. The finding of this study shows that awareness of nurses related to evidence based practices were (36%, 64%) satisfactory. The perception of participant was 55.48%. The Barriers for research utilization was 68.49% and barriers to research resource information were 71.92%. The study concluded that overall results awareness of Nurses about Evidence Based Practices was satisfactory but still they need to be excellent level of awareness. The barriers related to research utilization and research resource information were a big hurdle in evidence based practices and perceptions of skills were negative.

**Keywords:** Awareness, perception, barriers, and evidence based practices, Nurse, implementation

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### INTRODUCTION

Evidence based practice is becoming a basic need in health care centers. It's a best way to strengthen the practices of nurse. Evidence based practice help to improve the health quality.

Evidence based practices defined a technique that prescribe the finding and use of best recent research evidence to formulate health care decision [2].

The main aim to Implement EBP is to provide complete care to the patients and these practices approved by research. Determination of barriers to implementation of evidence based practice is necessary and is very necessary to deliver high quality of care to patients [3]. There are some hurdles to obtain a valuable professional status in nursing observed due to less

research utilization. These hurdles are the barriers in utilization of evidence based practices.

### Background

The utilization of evidence based practices is essential for the government hospitals of Pakistan. To improve the health status and quality of care is one of the most critical challenges. Evidence based practices slow down the morbidity and mortality rate to improve the patient care. Evidence based practices have good outcomes but unfortunately there are no implementation of evidence based practices (EBP) in government hospital of Pakistan. Evidence based practices should be applied instead of ineffective and harmful clinical practices[4]. Studies conducted in Alexander University Egypt states that positive attitude of nurses toward the implementation of evidence based practices improve the health care outcomes) [2]

It very bad luck that in many developing countries, dangerous and some unproductive interventions are used as routine care of patients, while beneficial practices are not implemented for lot hospital patients [5].

To change and encourage the healthcare worker to apply evidence based practices in routine intervention is not enough easy way [6]. However there are a lot of barriers involved in the implementation on evidence based practices which lower the quality of health care deliver to the patients. Nurses are the important part of the healthcare team and are responsible to improve the quality of care and deliver the potential care to the patients [7]. A study conducted in Iran states that shortage of time to read literature is the most important barriers of individual for implementation of evidence based practices and that is 83.7% [8].

### **Problem statement**

The quality of care provided in the government hospital is not up to the standard and it's due to the lacks of proper implementation of standard protocol. The assumption about this reason is that the nurse's perception regarding implementation of standard guideline is not good and there are some other factors which create hurdle in implementation of EBP. Furthermore, research work is not considered while making policies and implementing practices in the public hospital which creates health problems. The reason is that research results are not implemented. So, there is need to identify the barriers which are hurdles in research utilization. Thus, current study will identify the nurse's perception and factors that prevent the implementation of evidence based practices.

### **Significance of the study**

The study gave awareness about nurse's perception and barriers in practices according to standard protocol. This study identifies the factors which create the hurdles in implementation of evidence based practices. On the behalf of this study results organization can take sufficient measures to minimize those factors which are the main hurdles in implementation of evidence based practices

Professionals will try to deliver the quality of care according to the standard protocol which improves the prestige of profession. The world health organization put forward the significance of the fact that harmful and ineffective clinical practice must be replaced with the evidence based practice [3].

### **Objectives**

- To assess the hospital nurses awareness about evidence based practice.

- To assess the nurse's perception toward the evidence based practices.
- To determine the barriers of research utilization at hospital.
- To determine the barriers of research resource information.
- To discuss the reported perception for implementation of evidence based practices.

### **Research Question**

- Know about the awareness about the evidence based practices
- What are the barriers for implementation of evidence based practices?
- What are the perceptions of nurse's about evidence based practices?

## **METHODOLOGY**

### **Study Design**

A descriptive cross-section research design used to evaluate nurse's awareness, perceptions and barriers in implementation of Evidence Based Practice in healthcare.

### **Target population**

The study carried out from the nurses who are working in all departments of Punjab Institute of Cardiology (PIC) which are estimated 400 nurses and the nurses who are working in medical department, surgical department, gynaecological department, and paediatric department in services hospital Lahore (SHL) which are estimated 100.

### **Sampling techniques**

A suitable convenient sampling approach applied to distribute questionnaires among the nurses' participants during the survey.

### **Data analyse plan**

The objective of the research study will explained to all nurses on the cover letter enclosed with the questionnaire. A five-point Liker rating scale ranging from strongly disagree (1) to agree (5) will be used.

### **Inclusion criteria**

All registered nurses having the age above than 20 years and working in Govt. hospital were included in this study.

### **Exclusion criteria**

All registered nurses having the age less than 20 years and not working in Govt. hospital were excluded from the study.

### **Instrument**

Questionnaire used to conduct the information from nurses in Punjab Institute of cardiology (PIC) and services hospital Lahore (SHL).

### Statistical Analysis

Quantitative data was coded and analysed using SPSS v. 21. Descriptive statistical analysis of means, frequency and standard deviation was used to study demographic data. By using the formula sample size will be calculated by the "Sullivan formula"[9]

### Sample size

Sample size was calculated by using the formula.

$$n = N / 1 + N (e)^2$$

A 95% confidence level and  $P=0.5$  was assumed for formula.

$$(n) = N / 1 + N (e)^2$$

$n$  = sample size,  
 $N$  = total population,  
 $e$  = margin of error.

By putting the value in the formula

$$\begin{aligned} n &= N / 1 + N (e)^2, \\ n &= 500 / 1 + 500(0.05)^2, \\ n &= 500 / 1 + 500(0.0025), \\ n &= 500 / 1 + 1.25 = 500 / 2.25 \end{aligned}$$

$n = 223$ . The sample size was 223.

### Ethical consideration

The study conducted in the Punjab institute of cardiology and Services Hospital Lahore after a permission letter from institutional review board committee of university of Lahore. A letter was also taken from deputy chief nursing superintendent of PIC and chief nursing superintendent of Services Hospital Lahore. The rules and regulations of Hospital not violated. Each member who was the participant in this study was dealt in respective way. All information keeps confidential.

## RESULTS

### Demographic data

The questionnaire were conveniently distributed in 223 participants for data collection, 146 were completely collected and 23 questionnaires give incomplete information and 54 questionnaire were missed and did not receive back. The data samples were all female and all were registered nurse with the experience ranging from less than one year to more than 10 year. The participants have the education level of diploma of general nursing, specialize and post RN. Demographic data was collected of the data of participants qualification, experience, could be associated with the nurses awareness, perception and barriers for implementation of evidence based practices.

**Table-1: Demographic information**

Organization of participant	Gender	Age of participant	Experience	Marital status	Qualification
<b>Punjab institute of cardiology(pic)</b> 66(45.2%)  <b>Services(SHL)</b> 80(54.8%)	<b>Male</b> (0%)	<b>20-25yrs</b> 55(37.7%)	<b>&lt;1yr</b> 24(16.4%)	<b>Married</b> 50(34.2%)	<b>General nursing &amp; midwifery</b> 93(63.7%)
	<b>Female</b> (100%)	<b>26-30yrs</b> 69(47.3%)	<b>1-5yrs</b> 76(52.1%)	<b>Unmarried</b> 96(65.8%)	<b>Post RN</b> 39(26.7%)  <b>Specialization</b> 14(9.6%)
		<b>31-35yrs</b> 18(12.3%)	<b>6-10yrs</b> 39(26.7%)		
		<b>36-40yrs</b> 4(2.7%)	<b>&gt;10yrs</b> 7(4.8%)		

### Overall result of perception

The results of this study shows that 55.5 % (81) participants give incorrect answers of the

perception and 44.5% (65) participants give correct answers which indicate overall perception have negative perception.

**Table-2: Overall perception of nurses**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 out of 5 correct answer have positive perception	65	44.5	44.5	44.5
	incorrect answered have negative perception	81	55.5	55.5	100.0
	Total	146	100.0	100.0	

**Overall result of barriers of research utilization**

This study shows that 68.5 % ( 100) accept that barriers were present in research utilization whereas 31.5 % ( 46) participant were disagree to this statement.

**Table-3: Total barriers of research utilization**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8 out of 16 agree to barriers	100	68.5	68.5	68.5
	8 out of 16 not agree to barriers	46	31.5	31.5	100.0
	Total	146	100.0	100.0	

**Overall Result of Barriers to Research Resource Information**

The result of this study shows 71.9 % ( 105) participant were agree to the statement that barriers

exist in research resource information and 28.1 % ( 41) were not agree to above statement.

**Table-4: Total results of barriers to research resource information**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4 out of 8 agree to barriers to resource information	105	71.9	71.9	71.9
	4 out of 8 not agree to barriers to resource information	41	28.1	28.1	100.0
	Total	146	100.0	100.0	

**Data Normality test**

The data was analyzed on SPSS version 21 for any rectify or missing errors. For data value analysis and accuracy normality test was used. The value of data normality is -2 to +2. Normality test was checked through kurtosis and skewness. The value for skewness for awareness is .308 and the value of kurtosis is -

1.074 (Table 2). For the barriers of research utilization, the value of skewness is -.130 and kurtosis value is -1.546 (Table 3). For the barriers of research resource information, the skewness value is -.243 and kurtosis value is -.970 (Table 4). The value of skewness for perception is .095 and kurtosis value is -.792 (Table 4).

**Table-5: Awareness Normality**

Statistics		
N	Valid	146
	Missing	0
Skewness		.308
Std. Error of Skewness		.201
Kurtosis		-1.074
Std. Error of Kurtosis		.399

**Table-6: Barriers Normality**

Statistics		
N	Valid	146
	Missing	0
Skewness		-.243
Std. Error of Skewness		.201
Kurtosis		-.970
Std. Error of Kurtosis		.399

**Table-7: Perception Normality**

Statistics		
N	Valid	146
	Missing	0
Skewness		.095
Std. Error of Skewness		.201
Kurtosis		-.792
Std. Error of Kurtosis		.399

There are 31 questions in the questionnaire. The validity of questionnaire of awareness, barriers and perceptions was checked and it should be more than .60

and it should be significant. The Bartlett's test value of two questions of awareness is .60 and significant ( $p=.000$ ).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.600
Bartlett's Test of Sphericity	Approx. Chi-Square	37.097
	Df	4
	Sig.	.000

The value of Bartlett's test 16 items of barriers to research utilization is .824 with degree of freedom 120 and  $p=.000$  which indicate the significance validity.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	784.580
	Df	120
	Sig.	.000

The Bartlett's test value for the 8 items of barriers to research resource information is .702 with degree of freedom 28 and  $p$  value is significant (.000).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.702
Bartlett's Test of Sphericity	Approx. Chi-Square	239.858
	df	28
	Sig.	.000

The Bartlett's test value for the 5 items of barriers to research resource information is .702 with degree of freedom 10 and  $p$  value is significant (.000).

KMO and Bartlett's Test of perception		
		.702
Bartlett's Test of Sphericity	Approx. Chi-Square	281.787
	df	10
	Sig.	.000

The reliability analysis was also done and the value of Cronbach's alpha should be .70. in this analysis

the value of Cronbach's alpha is .904 and it indicate its reliability.

Reliability Statistics	
Cronbach's Alpha	N of Items
.904	31

## DISCUSSION

The purpose of the study was to know about the nurse's awareness, perception and barriers for the implementation of evidence based practices in Govt. hospital Lahore. Responses of the participants regarding the question "The nurse is unaware of the research" were poor (36%) and respondents respond satisfactory(64%) on the question "There is no documented need to change practices" and it also be supported by a study that (54.2%) clinical Nurses responses that instead of changing new techniques they prefer to use to use traditional methods [10].

The overall result of the awareness is satisfactory. Nurses have less awareness about the evidence based practices which is itself is a barrier for practice. A study conducted in Maldives states that (55%) were unaware and (45%) have moderate awareness about the term evidence based practices.

There are different barriers for the implementation of evidence based practices. Here are some barriers which are contributing the most in implementation.one of which is that "the nurse does not feel she has enough authority to change practices" (60%). The result of this study was correlated with previous study by Brown et al which states that top of the barriers is the lack of autonomy to change practices [11].

Respondents were asked about the barriers, they response about the time shortage for research as a barrier for research utilization (48%). Similarly another study result indicate that out of 100% there are ( 52%) percent response that they have no time to change practices according to evidence based practices [12].

The result of this study indicate that time shortage, difficulty in understanding the statics, research reports are not easily available, the nurse is unwilling to change , nurse sees little benefit for self are the main barriers for implementation of evidence based practices.

On the contrary a study conducted in Egypt reviled that mean score of the barrier difficulty in understanding the research report and statically analysis ( $3.5 \pm 1.2$ ), mean score of "nurse sees the little benefit for self is ( $2.5 \pm 1.2$ ). On the basis of this result study concluded them as barriers for practices of EBP [12].

The study conducted in Punjab Institute of Cardiology and Services Hospital Lahore. These hospitals are included in main Public hospital of Lahore so, the finding of this study can be generalized because it reflects the Nurses awareness, Perception and Barriers for the implementation of evidence based practices in all public hospital.

## CONCLUSION

The study concluded that overall results awareness of Nurses about Evidence Based Practices was satisfactory but still they need to be excellent level of awareness. The percentage of barriers related to research utilization was 68.49% and the percentage of research resource information was 71.92% and perceptions of skills were 55.48%. These results indicate that participants have some awareness but the perception of most of the participants was negative and barriers are most of the participant response to presence of barriers in research utilization and research resource information.

## Recommendations

This study suggest that there is need to increase the knowledge of nurses which enhance the awareness related evidence based practices it will also help to minimize the barriers for research utilization. Educational activities like workshop and seminars should be arranged for nurses. More researches should be conducted in Pakistan because there are very few studies conducted on this topic.

## Limitations

It was very difficult to approach nurses for data collection due to busy duty hours. Limited hospitals were selected for this study and sample size was very small. This study should be conducted in almost all hospital of the Lahore. This study conducted in very short period of time.

## REFERENCES

1. Adams, S. (2009). Use of evidence-based practice in school nursing: Survey of school nurses at a national conference. *The Journal of School Nursing*, 25(4), 302-313.
2. Hussein, A. H., & Hussein, R. G. (2013). The attitudes and barriers towards evidence-based practice among nursing educators. *J. Am. Sci.*, 9(12), 609-618.
3. Iravani, M., Janghorbani, M., Zarean, E., & Bahrami, M. (2016). Barriers to Implementing Evidence-Based Intrapartum Care: A Descriptive Exploratory Qualitative Study. *Iranian Red Crescent Medical Journal*, 18(2).
4. Gülmezoglu, A. M., Langer, A., Piaggio, G., Lumbiganon, P., Villar, J., & Grimshaw, J. (2007). Cluster randomised trial of an active, multifaceted educational intervention based on the WHO Reproductive Health Library to improve obstetric practices. *BJOG: An International Journal of Obstetrics & Gynaecology*, 114(1), 16-23.
5. Karolinski, A., Micone, P., Mercer, R., Gibbons, L., Althabe, F., Belizán, J. M., ... & Lambruschini, R. (2009). Evidence-based maternal and perinatal healthcare practices in public hospitals in



- Argentina. *International Journal of Gynecology & Obstetrics*, 105(2), 118-122.
6. Shaban, I. A., Hatamleh, R., Khresheh, R., & Homer, C. (2011). Childbirth practices in Jordanian public hospitals: consistency with evidence-based maternity care?. *International Journal of Evidence-Based Healthcare*, 9(1), 25-31.
  7. Heydari, A., Mazlom, S. R., Ranjbar, H., & Scurlock-Evans, L. (2014). A study of Iranian nurses' and midwives' knowledge, attitudes, and implementation of evidence-based practice: The time for change has arrived. *Worldviews on Evidence-Based Nursing*, 11(5), 325-331.
  8. Khammarnia, M., Haj Mohammadi, M., Amani, Z., Rezaeian, S., & Setoodehzadeh, F. (2015). Barriers to implementation of evidence based practice in Zahedan teaching hospitals, Iran, 2014. *Nursing research and practice*, 2015.
  9. Mohsen, M. M., Safaan, N. A., & Okby, O. M. (2016). Nurses' Perceptions and Barriers for Adoption of Evidence Based Practice in Primary Care: Bridging the Gap. *American Journal of Nursing Research*, 4(2), 25-33.
  10. Brown, C. E., Wickline, M. A., Ecoff, L., & Glaser, D. (2009). Nursing practice, knowledge, attitudes and perceived barriers to evidence-based practice at an academic medical center. *Journal of advanced nursing*, 65(2), 371-381.
  11. Jordan, P., Bowers, C., & Morton, D. (2016). Barriers to implementing evidence-based practice in a private intensive care unit in the Eastern Cape. *Southern African Journal of Critical Care (Online)*, 32(2), 50-54.
  12. Funk, S. G., Champagne, M. T., Wiese, R. A., & Tornquist, E. M. (1991). BARRIERS: the barriers to research utilization scale. *Applied Nursing Research*, 4(1), 39-45.