ABSTRACT

OBJECTIVES: To assess the nurses' attitude and belief toward evidence-based nursing (EBN) practices in tertiary care hospitals of Multan, Pakistan

STUDY DESIGN: A descriptive study

PLACE AND DURATION: The study was conducted in the Children's Hospital and the Institute of Child Health (CH & ICH), Multan, and Nishtar Medical College Hospital (NMCH), Multan from June 10, 2015 to August 10, 2015.

METHODOLOGY: The population comprised of head nurses and charge nurses of the two participating hospitals. The data collected on variables such as age, hours spent on direct patient care, and nurses' attitude and belief toward evidence based nursing which was assessed by asking a set of 17 statements on five point Likert type scale i.e., (1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree).

RESULTS: Most of the nurses reported that EBN helps them make decisions about patient care (Mean = 4.20, SD= .775), it improves the quality of patient care (Mean = 4.28, SD= .641). Nurses found disagree that EBN is a waste of time (Mean = 2.01, SD= 1.040). However, they reported that their workload is too high to keep up-to-date with all new evidences (Mean = 4.33, SD= .710).

CONCLUSION: Nurses had a positive attitude toward practicing evidence-based nursing. They had strong belief that practicing evidence basing nursing improves the quality of patient care. However, nurses were unable to keep-up with the current literature and practice evidence basing nursing due to high workload.

KEYWORDS: Evidence based nursing, clinical decision making, research evidence, information resources, practice setting

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INTRODUCTION

The concept of 'evidence-based' is quite new. The notion of term 'evidence based' can be traced back in 1992 in the documented work of Gordon Guyatt and the Evidence-based medicine working group. Evidence-based nursing (EBN) is an application of valid, relevant, and research based information in decision-making. Evidence Based Practice (EBP) is characterized as analyzing the research findings, examining its clinical relevance, and integrating research findings into practice. EBP approach help nurses to acquire the required skills to find the relevant literature and research evidence in order to increase the patient care. EBN approach make it sure that the nursing practice is based on the best available evidence and scientific method. Many studies indicated that traditionally nurses were largely dependent on the opinions of senior nurses. However, experience-based knowledge associated with biased thinking that is likely lead toward errors. Moreover, Pintz established that relying on experienced based knowledge can result in poor patient outcomes due to its nature of holding outdated information. Therefore, since last few decades, the practice of nursing has been evolved. Now, more nurses are likely to rely on the findings of clinical research rather than seniors’ opinions or experiences. Previous studies established that evidence based practice help improve the quality and effectiveness of care provided to patients. Therefore, nurses have been encouraged to incorporate research findings into their patient care in order to avoid errors in nursing practice. As a result, growing number of nurses have adopted EBN that allowed them to carry out research and to integrate its findings into practice. Sackett identified five steps that can be used in EBP. The first step was; asking a clinical related question, looking for the evidence, evaluating the evidence, deciding the use of valid evidence in practice, and evaluating the progress. Throughout the EBN process, the collaboration between nurses and researchers/librarians can facilitate effective EBN practices.
in order to increase patient care quality. Many studies conducted in other countries to measure the perception of nurses toward EBN. These 16-21 reported that nurses strongly believed in the value of EBPs for patient care, but their confidence was quite low regarding their own knowledge and skills required for EBP. However, previously, no research study on Pakistani nurses’ attitude and belief towards EBN found in the available literature (e.g., online database, journals, etc.) that could indicate nurses’ behavior toward EBN e.g., what is their belief in the value of EBN for patient care, Is application of EBN necessary in their day-to-day nursing practice, Do they believe literature and research findings are useful in their day-to-day nursing practice, What do they think that incorporating of EBN into their practice will increase their reimbursement rate, Are they interested in learning and improving the skills necessary to incorporate EBN into their practice. This study will help policy makers, librarians, Health Department, hospital administration to understand the nurses’ attitude and belief towards EBN which will allow them to take necessary steps in order to stimulate nursing behavior to make them adopt EBN practices into their day-to-day patient care. The results of the study will also fill the gap by adding into the literature about nursing attitude and belief towards EBN.

The selection of the research design is largely depended on the problem being studied, the targeted population, and the personal experiences and expertise of the researcher. A survey research design found well suited in the context of present study because it aimed at assessing the nursing attitude and belief towards evidence based medicine. Therefore, a survey was carried out with an objective to assess the nurses’ attitudes and beliefs toward evidence based nursing (EBN) practices in tertiary care hospitals of Multan, Pakistan.

**METHODOLOGY**

This descriptive study was conducted at the Children’s Hospital & the Institute of Child Health (CH&ICH), Multan, and Nishtar Medical College Hospital (NMCH), Multan from June 10, 2015 to August 10, 2015. The regular full-time head nurses and charge nurses (a designation of junior nurses) working in indoor departments of CH&ICH and NMCH were included in this study. However, the head nurses and charge nurses working in accidental and emergency department were excluded from this study due to intensive nature of their duties and busy working hours. Three-part self-administered questionnaire was used to collect the data for this study. First part of the questionnaire comprised of questions related to demographic information of the respondents (e.g., age, working hours, hospital). In the second part of the questionnaire nine-statements were asked relating to attitude of nurses towards evidence-based nursing practice. The third part of the questionnaire consisted of questions related to nurses’ belief toward evidence based nursing practices. A five point Likert type scale i.e., (1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree) was used to record the responses of the respondents on variables such as respondents’ attitude and belief toward evidence based nursing.

Nursing superintendents (In-charge nurses) of the participating hospitals (NMCH, CH and ICH) served as study facilitators. The main role of study facilitators were to lend support in their hospitals in order to distribute and collect the filled questionnaire. The questionnaire was pre-tested by two senior nurses, having more than 15-years of experiences, for validity of the questionnaire and their statements. The recommended suggestions incorporated in the questionnaire. Questionnaire was distributed among nurses through convenience sampling and data were collected on variables such as age, hours spend on direct patient care, working attitude, look for information, nurses’ attitude and belief toward evidence based nursing.

Respondents were explained about the objectives of the study. Informed consent was obtained from the nurses to participate in the study. The participants were free to withdraw from the survey at any time. The collected data was analyzed using statistical package for social sciences (SPSS-21) and reported in mean, standard deviation. However, Independent sample t-test was used to determine any significant difference in spending hours per week in direct patient care between respondents of two difference hospitals.

**RESULTS**

A total of 150 copies of the questionnaire were distributed among nurses, out of which 102 (68%) nurses returned the questionnaire, and 87 (58%) questionnaire were valid for data analysis. Fifteen questionnaires were discarded because whether they were incomplete or filled carelessly. Of all the valid respondents (n=87), 46(52.87%) were from the Children’s Hospital and Institute of Child Health, and 41 (47.12%) Nishtar Medical College Hospital. Majority 78(89.7%) respondents’ age was less than 35 years. Thirty-eight (43.7%) respondents were working in medical and surgical units. Most 52(59.77%) of the respondents reported that they have attended a formal training course related to EBN.

Respondents were asked a question to indicate how often do they look for information, research or evidence to support their nursing practice (Table. I). The collected data was analyzed using statistical package for social sciences (SPSS-21) and reported in mean, standard deviation. However, Independent sample t-test was used to determine any significant difference in spending hours per week in direct patient care between respondents of two difference hospitals.

### Table I: Respondents’ Age Group, Primary Work Area in Hospital, Formal Training and their Frequency to Look for Information (N=87)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 35 years</td>
<td>78</td>
<td>89.7%</td>
</tr>
<tr>
<td>36-50 years</td>
<td>9</td>
<td>10.3%</td>
</tr>
<tr>
<td>&gt; 50 years</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
The mean hours spent in direct patient care per week by the nurses were (36.14 hours, SD 3.33 hours) with a (range of 12, minimum 30 hours and maximum 42 hours). Independent sample t-test was used to determine whether any significant difference exist in the weekly working hours of the nurses of the two different hospitals (e.g., CH&ICH, NMCH).

The mean hours spent in direct patient care per week by the nurses were (36.14 hours, SD 3.33 hours) with a (range of 12, minimum 30 hours and maximum 42 hours). Independent sample t-test was used to determine whether any significant difference exist in the weekly working hours of the nurses of the two different hospitals (e.g., CH&ICH, NMCH).

A statistically no significant difference was found in spending hours per week in direct patient care between nurses of two difference hospitals (CH&ICH, NMCH) $t(85) = -.214, p = .831$, indicating that nurses from both the hospitals spend equal hours per week in direct patient care.

Of the nine statements, one statement received a mean score 4.51, indicating that nurses found 'strongly agree' that EBN is a new concept. The two statements received a mean value between 3.83 and 4.33 indicating that nurses found 'agree' that 'their workload is too high to keep up-to-date with all new evidences', and 'currently, there is not enough emphasis on EBN'. Five statements received a mean score between 2.90 to 3.46 indicating that nurses were 'neither agree nor disagree' with these statements. These statement were 'I believe evidence based nursing has only limited utility', 'most research articles are not relevant to my daily practice', 'I prefer using more traditional methods instead of shifting to new approaches' etc. However, one statement received a mean score 2.01 indicating that the nurses found disagree with this statement that 'evidence-based practice is a waste of time'.

TABLE – II: NURSES’ ATTITUDE TOWARD EVIDENCE-BASED NURSING PRACTICE (N=87)

<table>
<thead>
<tr>
<th>Statements</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBN is a new concept</td>
<td>87</td>
<td>4.51</td>
<td>.680</td>
</tr>
<tr>
<td>My workload is too high to keep up-to-date with all new evidences</td>
<td>87</td>
<td>4.33</td>
<td>.710</td>
</tr>
<tr>
<td>Currently, there is not enough emphasis on EBN</td>
<td>87</td>
<td>3.83</td>
<td>.595</td>
</tr>
<tr>
<td>I believe evidence-based nursing practice (EBN) has only limited utility</td>
<td>87</td>
<td>3.46</td>
<td>1.108</td>
</tr>
<tr>
<td>Most research articles are not relevant to my daily practice</td>
<td>87</td>
<td>3.38</td>
<td>1.232</td>
</tr>
<tr>
<td>I prefer using more traditional methods instead of shifting to new new</td>
<td>87</td>
<td>3.02</td>
<td>.952</td>
</tr>
<tr>
<td>Strong evidence is lacking to support most of the interventions I use with</td>
<td>87</td>
<td>2.99</td>
<td>1.017</td>
</tr>
<tr>
<td>I stick to already tried and trusted methods rather than changing anything</td>
<td>87</td>
<td>2.90</td>
<td>.965</td>
</tr>
<tr>
<td>Evidence-based practice is a waste of time</td>
<td>87</td>
<td>2.01</td>
<td>1.040</td>
</tr>
</tbody>
</table>

Scale: 1= Strongly Disagree, 2= Disagree, 3= neither Agree nor Disagree, 4= Agree, 5= Strongly Agree

Of the nine statements, one statement received a mean score 4.51, indicating that nurses found 'strongly agree' that EBN is a new concept. The two statements received a mean value between 3.83 and 4.33 indicating that nurses found 'agree' that 'their workload is too high to keep up-to-date with all new evidences', and 'currently, there is not enough emphasis on EBN'. Five statements received a mean score between 2.90 to 3.46 indicating that nurses were 'neither agree nor disagree' with these statements. These statement were 'I believe evidence based nursing has only limited utility', 'most research articles are not relevant to my daily practice', 'I prefer using more traditional methods instead of shifting to new approaches' etc. However, one statement received a mean score 2.01 indicating that the nurses found disagree with this statement that 'evidence-based practice is a waste of time'.

TABLE – III: NURSES’ BELIEF TOWARD EVIDENCE-BASED NURSING PRACTICE (N=87)

<table>
<thead>
<tr>
<th>Statements</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of EBN is necessary in the practice of nursing</td>
<td>87</td>
<td>4.41</td>
<td>.909</td>
</tr>
<tr>
<td>Literature &amp; research findings are useful in my day to day practice</td>
<td>87</td>
<td>4.41</td>
<td>.786</td>
</tr>
<tr>
<td>EBN improves quality of patient care</td>
<td>87</td>
<td>4.28</td>
<td>.641</td>
</tr>
<tr>
<td>EBN helps me make decisions about patient care</td>
<td>87</td>
<td>4.20</td>
<td>.775</td>
</tr>
<tr>
<td>I am interested in learning or improving the skills necessary to incorporate EBN into my practice</td>
<td>87</td>
<td>4.14</td>
<td>.668</td>
</tr>
<tr>
<td>My hospital support the use of current research in practice</td>
<td>87</td>
<td>3.75</td>
<td>.750</td>
</tr>
<tr>
<td>My reimbursement rate will increase if I incorporate EBN into my practice</td>
<td>87</td>
<td>3.67</td>
<td>.911</td>
</tr>
<tr>
<td>EBN does not take into account the limitations of my clinical practice setting</td>
<td>87</td>
<td>3.46</td>
<td>.925</td>
</tr>
</tbody>
</table>

Scale: 1= Strongly Disagree, 2= Disagree, 3= neither Agree nor Disagree, 4= Agree, 5= Strongly Agree
Respondents were asked a set of eight statements to assess their belief about EBN practice. Of the eight statements, seven statements received a mean score between 3.67 to 4.41 indicating that nurses found agree with these statements (e.g., 'application of EBN is necessary in the practice of nursing', 'literature and research findings are useful in my day to day practice', 'EBN improves quality of patient care', 'EBN helps me make decisions about patient care', etc. Table-III). However, one statement received a mean score 3.46 with SD .925 indicating that nurses were 'neither agree nor disagree' with the statement that 'EBN does not take into account the limitations of my clinical practice setting'. (Table-III)

Independent sample-t test was used to determine any significant difference between the nurses' attitude or belief of two different participating hospitals (CH&ICH, NMCH). Statistically no significant difference were found in the nursing attitude $t (1.133) = -.704$, $p = .483$, and belief $t (.947) = 1.133$, $p = .261$ of the two participating hospitals which were The Children's Hospital and the Institute of Child Health Multan, and Nishtar Medical College Hospital, Multan.

**DISCUSSION**

The results of our study showed that EBN is a new concept. Currently, there is not enough emphasis on EBN and it has limited utility. A review study conducted by Scott and McSherry also concluded that nurses need to aware of what EBN means, what constitute evidence, and how to apply the evidence into nursing practice. However, 52% of nurses in our study reported that they had attended a formal training course related to EBN. Most of the nurses were interested in learning and improving the skills necessary to incorporate EBN into their practice.

The results of our study support the findings of previous studies that EBN practice is necessary for nursing. The results of our study showed that nurses indicated that EBN helps them to make decisions about patient care. A similar findings reported by Cote et al. that the use of research evidence for patient care decisions by nurses would improve the quality of patient care and also a study conducted by Penz and Bassendowski reported that there is need to incorporate EBN approach to nursing care into clinical practice settings in order to improve the quality of patient care outcomes.

The findings of our study indicated due to high workload nurses are unable to keep up-to-date their knowledge with all the new evidences and research findings. Similar kind of barriers also reported by Penz and Bassendowski in their study that lack of time, busy working schedule were among the main barriers that prevented nurses to practice EBN.

Most of the nurses reported that their hospital support the use of current research in practice. Many of the nurses were of the opinion that their 'reimbursement rate will increase if they incorporate EBN into their practice'. A study conducted previously reported that the identity of the evidence-based nurse demands the modern nurse to develop new skills and attitudes in order to promote effective patient care.

There is need to promote EBN practices among nurses in order to improve patient care quality. A study conducted by Holleman et al., identified the role of professional nursing associations in the implementation and promotion of EBN, as such associations are significant to educate nurses, develop professional networks (through which to promote debate of evidence practice among nurses and also to develop a database (like PubMed) that include important information resources), influence the policy makers and government to facilitate infrastructure and resources in clinical practice settings. The review of the literature identified sixty nursing associations that are playing their role in promoting the EBN. Most of these associations aimed at improving nurses’ competences and changing their attitude towards EBN.

- The results of this study will be useful for librarians, nursing superintendents, head of medical education departments, and head of the participating hospitals in terms of developing their understanding with nursing beliefs and attitudes towards (EBN) practices.
- The results of this study will particularly help librarians to play their role effectively in promoting the EBN in their hospitals by introducing the various programs on information literacy, importance of evidence based practice, and implementation of evidence based practice.

**CONCLUSION**

Nurses had a positive attitude toward practicing evidence-based nursing. They had strong belief that practicing evidence based nursing improves the quality of patient care. However, nurses are unable to keep-up with the current literature and practice evidence based nursing due to high workload.

**RECOMMENDATION**

The study recommended that there is need to instill the required skills in nurses for quick information searching from practice settings. There is also need to develop infrastructure (e.g., availability of computers and Internet) in nursing stations in tertiary hospitals in order to facilitate the nurses to incorporate evidence based nursing in their day-to-day practice. Professional nursing associations should play their role to promote the culture of evidence based nursing among nurses.

**Authors Contribution:**

Naeem SB: Literature search, literature Review and manuscript write
Rubina R: Set the research objectives and designed study, reviewed and proof the manuscript
Ishfaq K: Collected, analyzed and reported the results in the manuscript

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**Conflict of Interest:** None.

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REFERENCES