

REVIEW PAPER

# Evidence-Based Practice – A Challenge For Nurses

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## ABSTRACT

*Evidence based practice, evidence based nursing and evidence based medicine are not new terminology in the recent era. During the 1980s, the term “evidence-based medicine” emerged to describe the approach that used scientific evidence to determine the best practice. Later, the term shifted to become “evidence-based practice” (EBP) as clinicians other than physicians recognized the importance of scientific evidence in clinical decision-making. For implementation of evidence based nursing practice, only knowledge is not sufficient among the nurses but they must have attitude and intention to practice it by their heart. In current Indian scenario, there are plenty of challenges for integrated evidence based nursing practice. Barriers to effective implementation of EBP may include factors like time, limited access to the literature, lack of confidence in the staff's ability to critically evaluate empirical research, limited interest in scientific inquiry, a work environment that does not support or value EBP, inadequate research resources, and limited authority or power to change practice based on research findings. The essential step to be successful in implementing EBP is, motivation to practice EBP among nursing staff at all levels. Nurse administrators, clinical nursing staff, advanced practice nurses, and interested nursing staff must work together to decide on how to involve entire nursing staff in implement EBP.*

**Key Words:** Evidence based nursing practice, Barrier, strategy

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## INTRODUCTION

Evidence-based practice has gained momentum in nursing, and its definitions vary widely. Research findings, knowledge from basic science, clinical knowledge, and expert opinion are all considered “evidence”; however, practices based on research findings are more likely to result in the desired patient outcomes across various settings and geographic location.<sup>1</sup>

The call for evidence-based quality improvement and healthcare transformation underscores the need for redesigning care that is effective, safe, and efficient. There is always and will always be a desire to improve the care of our patients. There is a definite need for nurses, and all practitioners, to have an open mind when dealing with the modern inventions of the future because these could potentially improve the health of patients.

Nursing has a strong tradition of focusing on various ways of knowing to provide excellent care. All these ways of acquiring, processing, reflecting, and evaluating nursing knowledge are important in developing a comprehensive clinical perspective. Evidence-based practice explores the empiric way of knowing, focusing on methods of critically appraising and applying available data and research to understand and inform clinical decision-making better.<sup>2</sup>

### Definitions of Evidence Based Practice (EBP)

Sackett et al.<sup>3</sup> define EBP as ‘the conscientious, explicit and judicious use of current best evidence in making nursing decisions about the care of individual patients’. Their definition acknowledges that nurses should use the best evidence available; use the most current version of that evidence; but apply it judiciously in the context of

individual patient care.

Carnwell<sup>4</sup> defines EBP as '[the] systematic search for, and appraisal of, best evidence in order to make clinical decisions that might require changes in current practice, while taking into account the individual needs of the patient.'

She also adds 'Best evidence might be defined as that which is valid and relevant to the patient.

Her definition acknowledges the requirement to consider patient needs and that the nurse needs to be able to both search for and appraise evidence in order to make sound clinical decisions. She further adds that evidence must be valid and relevant to the individual patient.

It may be therefore, necessary to review a number of definitions related to EBP in order to establish how evidence may be viewed in different ways.

#### **Evidence-Based Nursing Practice (EBNP)**

Over the past decade, in accordance with most health-related professions, there has been a growing focus on quality improvement including moving from a traditional intuition based paradigm to evidence-based nursing practice (EBNP).<sup>5</sup>EBNP refers to the application of the best evidence in clinical decision-making by integrating clinical expertise with recent research findings, while taking into consideration the values and preferences of patients.<sup>6</sup> EBNP is derived from the general movement toward evidence-based medicine in general healthcare<sup>7</sup> and has had a profound impact on several disciplines, such as medicine,<sup>8</sup> and mental health,<sup>9</sup> and behavioural healthcare.<sup>10</sup>

#### **Importance of evidence-based nursing practice**

Implementing EBNP is potentially beneficial for patients and healthcare systems, and for nurses. It enhances patients' access to and information about effective treatment.<sup>11</sup> EBNP can improve the healthcare system by facilitating consistent decision making and advancing cost-effectiveness.<sup>12</sup>

Finally, EBNP can help nurses by facilitating informed and evidence-based clinical decision-making, helping them to keep updated with technologies, and enabling greater efficiency.<sup>13</sup>

These new competencies, in turn, can raise nurses' status in multi-professional teams and the profession in general. Nurses who are involved in EBNP have been found to express a sense of professionalism and growth, which contributes to their professional identity.<sup>14</sup>

Evidence-based practice helps nurses provide high-quality patient care based on research and knowledge rather than because "this is the way we have always done it," or based on traditions, myths, hunches, advice of colleagues, or outdated text books.

It also provides opportunities for nursing care to be more individualized, more effective, streamlined, and dynamic, and to maximize effects of clinical judgment. When evidence is used to define best practices rather than to support existing practices, nursing care keeps pace with the latest technological advances and takes advantage of new knowledge developments.

#### **Implementation of Evidence Based Nursing Practice**

Nurses face a real challenge when translating best evidence into clinical practice. The use of evidence based practice depends on the nurses' proficiency in understanding and critiquing the research articles and the associated literature which will be presented to them in the clinical setting.

The seven critical steps of Evidence Based Practice process<sup>15</sup>



**Figure 1** The Evidence Based Practice process

**Cultivate Spirit of Inquiry:** A spirit of inquiry refers to an attitude in which questions are encouraged to be asked about existing practices. Cultivating a spirit of inquiry allows nurses to feel comfortable with questioning current methods of practice and challenging these practices to create improvements and change. A culture that fosters this should have a philosophy that incorporates EBP, access to tools that can enhance EBP and administrative support and leadership that values EBP.

**Asking Clinical Question:** Clinical questions may be address the Patient population, Issue or intervention, Comparison group, Outcome, and Time frame **or** in short form **PICOT**. Asking questions in this format assists in generating a search that produces the most relevant, quality information related to a topic, while also decreasing the amount of time needed to produce these search results.

**Searching for and Collecting Relevant Evidence:** To begin the search for evidence, nurses should use each keyword from the PICOT question that was formed. Once results have been found on the intervention or treatment, the research can be rated to determine which provides the strongest level of evidence. There are seven levels of evidence, with a level I being of the strongest quality and a level VII being of the weakest quality. The seven level of evidence are

**Level I:** Evidence from systematic reviews of randomized control trials.

**Level II:** Evidence from well-designed randomized control trials.

**Level III:** Evidence from well-designed control trials that are not randomized.

**Level IV:** Evidence from case-control or cohort studies.

**Level V:** Evidence from systematic reviews of descriptive or qualitative studies.

**Level VI:** Evidence from a single descriptive or qualitative study.

**Level VII:** Evidence from expert opinions.

The strongest levels of evidence, systematic reviews or meta-analyses, summarize evidence related to a specific topic by finding and assessing studies that specifically relate to the question being asked. Meta-analyses are systematic reviews that also use quantitative measures such as statistics to summarize the results of the studies analyzed.

**Critically Appraise the Evidence:** To begin the critical appraisal process, three questions may be asked to determine the validity, reliability, and applicability of the evidence found. The three questions are:

1. Are the results of the study valid? In order to be valid, the results of the study must be as close to the truth as possible. Also, the study must be conducted using best available research methods.
2. What are the results? This question measures the reliability of the study. In an intervention study, reliability consists of whether the intervention worked, how large the effect was, and whether a nurse could repeat the study with similar results. For a qualitative study, reliability would be measured by determining if the research accomplished the purpose of the study.
3. Will the results be applicable in caring for patients? The study may be used in practice. While caring for patients if the subjects are similar to the patients being cared for, the benefit outweighs the harm, the study is feasible, and the patient desires the treatment.

After asking these three questions, evidence appraisal continues by creating an evidence synthesis. This synthesis compares multiple studies to see if they are in agreement with each other.

**Integrate the Evidence:** After appraising the evidence, it is necessary to integrate it with the provider's expertise and patient's preferences. The patient is encouraged to practice autonomy and participate in the decision-making process.

**Evaluate Outcomes:** The next step in the evidence-based practice process is to evaluate whether the nursing intervention was effective in terms of patient outcomes. It is important to evaluate the outcomes in a real-world clinical setting to determine the impact of the evidence-based change on healthcare quality.

**Disseminate Outcomes:** The last step is to share the information especially if positive outcomes are achieved. By sharing the results of evidence-based practice process, others may benefit. Some methods to disseminate the information include presentations at conferences, rounds within one's own institution, and journal publications.

### **Barriers in Implementation of Evidence-Based Practice**

Barriers to effective implementation of EBP may include many factors such as time factors, limited access to the literature, lack of confidence in the staff's ability to critically evaluate empirical research, limited interest in scientific inquiry, a work environment that does not support or value EBP, inadequate research resources, and limited authority or power to change practice based on research findings.

The barriers are *lack of knowledge on research process and lack of knowledge on Evidence- Based Practice* is two main barriers in which are observed in Indian scenario. The first of which would be the practitioner's ability to critically appraise research. This includes having a considerable amount of research evaluation skills, access to journals, and clinic/hospital support to spend time on EBN. The causes of these barriers include nurses and other professional practitioners' lack of knowledge of research methods, lack of support from professional colleagues and organizations, and lack of confidence and authority in the research arena.<sup>3</sup>

*Lack of time* during their shift is another primary challenge to do research and apply EBP. Also, there is an ongoing explosion in the amount and type of information available. Time, workload pressures, and competing priorities can impede research and development.<sup>16</sup>

Another barrier is that *the practice environment can be resistant* to changing tried and true conventional methods of practice. This may be because of reluctance to believe results of research study over safe, traditional practices, cost of adopting new practices, or gaining momentum to rewrite existing protocols.<sup>17</sup>

*Lack of continuing education programs* for the nurses is another barrier in implementing EBN into practice. For Practices there may not be provision for ongoing workshop to teach new skills which is due to lack of funding, staff, and time.

Another barrier in introducing newly learned methods for improving treatments or patients' health is the *fear of "stepping on one's toes"*. New nurses might feel it is not their place to suggest or even tell a superior nurse that newer, more efficient methods and/or practices are

available.

### **Strategies to promote evidence-based**

The greatest barrier to nurses accessing and reviewing evidence based information related to time and the availability of information and identifying the implications for practice are of concern. Therefore any strategies to promote evidence based practice should be taken an account of the current constraints under which nurses are working and ensures that evidence based information is readily available to nurses in a form in which they can easily understand the implication for their practice.

Values, resources and evidence are the three factors that influence decision-making with regard to health care<sup>18</sup>. All registered nurses should be taught to read and critically interpret research and know where to find articles which relate to their field of care. In addition, nurses need to be more aware of how to assess the information and determine its applicability to their practice.

Nurses should be access to a rich library with nursing and medical journals. They also should be provided with the opportunities for working with a computer and for searching the Internet in the workplace. There should be system support for searching and reading professional literature. Support them to acquire the skills needed to read, evaluate and critically appraise evidence. Nurse Managers act as role models should provide the resources and the support for the work and celebrate success with recognition of unit staff. Involve the clinical educator as a part of the support system of the EBP change.

Bridging the gap from research to clinical practice can be accomplished by multiple means. One of the most common is incorporating evidence-based research into an organization's policies and procedures. However, several operational issues arise.

### **CONCLUSION**

The evolution of EBP continues. The involvement of nurses in designing and implementing EBP is of paramount importance. From nursing assessment till the evaluation, from the admission to discharge of patients, from simple to complex work in every area of nursing EBP has a role. Nurses face a real challenge when translating best evidence into clinical practice. Therefore there is a need to improve access to libraries, computers

and Internet to facilitate evidence-based nursing practice. There is also a need to increase organizational support and incentives for implementing evidence-based nursing practice.

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