Evidence based practice (EBP) is the conscientious use of current best evidence in making decisions about patient care; it is a clinical problem solving strategy that de-emphasizes decision making based on custom and emphasizes the integration of research evidence with clinical expertise and patient preferences.1

Evidence based practice (EBP) "involves an ability to access, summarize, and apply information from the literature to day-to-day clinical problems". Evidence based practice "requires an emphasis on systematic observation and experience and a reliance on the research literature to substantiate nursing decisions." Evidence based practice allows practitioners to meet a daily need for valid information about clinical situations.2

The EBP process is a method that allows the practitioner to assess research, clinical guidelines and other information resources based on high quality findings and apply the results to practice. It is a problem solving approach to clinical practice and administrative issues that integrates:

- a systematic search for and critical appraisal of the most relevant evidence to answer a burning clinical question
- one's own clinical expertise
- patient preferences and values.3

1. Why Evidence based nursing

Evidence-based nursing (EBN) is one approach that may enable nurses to manage the explosion of new literature and technology and ultimately may result in improved patient outcomes.

Nursing students spend a great deal of preclinical preparation time designing care plans, reviewing pathophysiology, and memorizing pharmacologic interactions. Although these activities are useful, they cannot be the only method of preparing students for nursing practice.

Sole reliance on textbooks and expert faculty knowledge does not promote the critical thinking skills that nurses must have to survive in the current fast paced clinical settings. Students must learn to develop independent, evidence-based methods of clinical decision making. Both medical and nursing professionals have explored this change in healthcare practice, research and knowledge development, a paradigm shift called “evidence based practice”.2

EBN is an approach to making quality decisions and providing nursing care based upon personal clinical expertise in combination with the most current, relevant research available on the topic. EBN implements the most up to date methods of providing care, which have been proven through appraisal of high quality studies and statistically significant research findings.

The goal of EBN is to improve the health and safety of patients while also providing care in a cost-effective manner to improve the outcomes for both the patient and the healthcare system. EBN is a process founded on the collection, interpretation, appraisal, and integration of valid, clinically significant, and applicable research. The evidence used to change practice or make a clinical decision can be separated into seven levels of evidence that differ in type of study and level of quality. To properly implement EBN, the knowledge of the nurse, the patient's preferences, and multiple studies of evidence must all be collaborated and utilized in order to produce an appropriate solution to the task at hand. These skills are taught in modern nursing education and also as a part of professional training.3

2. The steps of EBN

Cultivate Spirit of Inquiry: A spirit of inquiry refers to an attitude in which questions are encouraged to be asked about existing practices. Cultivating the spirit of inquiry allows health care providers to feel comfortable with questioning current methods of practice and challenging these practices to create improvements and change.

Ask Clinical Question (PICOT): PICOT formatted questions
address the Patient population, Issue or intervention, Comparison group, Outcome, and Time frame. 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.

Search for and Collect Relevant Evidence: To begin the search for evidence, 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: Level I: Evidence from systematic reviews or meta-analysis 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 and 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 analysed.

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. 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 clinician could repeat the study with similar results. 3. Will the results be applicable in caring for patients? The study may be used in practice when 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.

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 treatment 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.

3. Uses of EBP
The use of evidence based practice depends a great deal on the nursing student's proficiency at understanding and critiquing the research articles and the associated literature that will be presented to them in the clinical setting.

4. Barriers of EBP
There are many barriers to promoting evidence based practice. 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. Time, workload pressures, and competing priorities can impede research and development.

Another barrier is that the practice environment can be resistant to changing tried and true conventional methods of practice. This can be caused 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.

5. Conclusion
Evidence based practice allows nurses to enrich their clinical training and experience with up to date research. With the large amount of research and information that exists in nursing, learning the skills of evidence based practice allows nurses to search for, assess, and apply literature to their clinical situations.

Reference

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