

**Report on the
2002 Summer Institute on Evidence-Based Practice
Best Practice: Basics and Beyond
San Antonio, Texas
18-20 July 2002**

This seminar began with an internationally renowned expert on evidence-based practice as keynote speaker. Evidence-based practice began as a response to a crisis of health care that challenged professionals and the public to look at health care practices. Some of the issues of concern were the huge costs of health care, legitimacy of professionals, a rise in consumerism, unacceptable variations in practice, evidence of harm and lack of benefit in health care, and the increasing influence of industry and corporations that lacked the trust of the public. Evidence-based health care is founded on practice that is explicitly informed by research evidence, focuses on management of individual patients, uses best current knowledge as evidence in decision-making about groups and populations, and incorporates resource implications and issues of equity. Several models of evidence-based practice were introduced.

Models of Evidence-Based Practice

The keynote speaker described an approach to evidence-based health care. This approach design was cyclical and included the following steps: (1) reflect on practice and identify areas of uncertainty; (2) phrase answerable questions; (3) search for research evidence; (4) critical appraisal of the research; (5) implementation where appropriate; and (6) audit. The next step is a repeat...reflect on practice, etc. The search for research and critique of research is a critical step as very good journals publish excellent research and also very questionable research. Sources of research include systematic reviews, synopses and research studies.

The Cycle of Knowledge Transformation is a new model for evidence-based practice developed by the Academic Center for Evidence-Based Practice at the UTHSCSA. Known as the ACE Star Model, "it is a simple, parsimonious depiction of the relationships between various stages of transformation, as new knowledge is moved into practice". The model is depicted as a 5-point star and illustrates five major stages of knowledge transformation. The first stage is **discovery** where knowledge is discovered through traditional research methodologies and research results from single, original studies are generated. The second stage is **evidence summary** where research is synthesized into a single, meaningful statement of the state of the knowledge. The third stage is **clinical recommendations** where evidence summaries are translated into practice recommendations. Recommendations are generically termed clinical practice guidelines and may take on a variety of forms including care standards, clinical pathways, protocols and algorithms. The fourth stage is **implementation** where practice is changed through formal or informal channels within the organization. The final stage is **evaluation** of the impact of EBP on patient health outcomes, satisfaction, efficacy, efficiency, economic analysis, and health status.

The U.S. Preventive Services Task Force introduced an evidence-based approach for health promotion and prevention. They select a topic, develop a map of linkages in evidence to be reviewed, evaluate the evidence, and translate the evidence to recommendations for health promotion and prevention. Recommendations are graded from A to F based on the quality of the overall evidence and estimate of net benefit; A recommendations indicate high quality of research/evidence that indicates that the benefit of a recommended intervention far outweighs the harm. F recommendations indicate poor quality of research/evidence or that potential harm outweighs the benefits of the intervention.

The Stetler Model of Research Utilization to facilitate Evidence-Based Practice was described. This model has five phases including (1) **preparation** where literature is searched and sources are selected for critical review and the purpose and outcomes for the issue are defined; (2) **validation** where a utilization focused critique and synopsis of research are performed; (3) **comparative evaluation/decision making** where the evidence-based practice is compared with current practice and a decision is made to not use, use now and consider use later; (4) **translation/application** where the evidence-based practice is implemented; and (5) **evaluation** of the change process and goal related progress, as well as the result/outcomes of the evidence-based practice.

Systematic Review

A session on systematic review was presented and seminar participants broke into groups to evaluate actual evidence summaries. A systematic review is a quantitative or qualitative synthesis of all the evidence relevant to a focused question. Steps in a systematic review include formulating the question, locating and selecting research studies, critically appraising the studies, collecting data, synthesizing data, and interpreting results. Systematic review put the “science” back in scientific review articles and improved the scientific basis of practice guidelines. To provide information on how to search for research articles, systematic reviews and other evidence, a session followed that addressed the management of information resources to facilitate evidence-based practice.

Clinical Practice Guidelines (CPGs)

Practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care services for specific clinical circumstances. Guidelines are to be used to improve research utilization, assure the appropriate care, improve resource utilization, ensure accountability, guide learning, stimulate research, prevent errors and decrease variation. The DoD/VA practice guidelines were discussed in terms of (1) process of development, (2) lists of completed CPG’s and those in development, and (3) implementation of CPGs. Examples of guidelines that were implemented by the Army and the outcomes that were measured were presented.

Changing Practice

Implementation = changing practice. The operating definition is the movement of evidence into provider practice. Dissemination, social influences and organizational influences, and policy contribute to successful implementation.

Conclusion

Several models for evidence-based practice were introduced. Most were very easily understood and would be simple to use. Although the steps are similar in all models presented at this seminar, the Stetler model is more complex and may be more difficult to understand, particularly for the novice. In comparison, the Iowa Model of Evidence-Based Practice presented in a seminar by Dr. Marita Titler is simple, yet detailed in order to give those using the model a clear picture of what to do. I recommend the Iowa Model of Evidenced-Based Practice to promote quality care.

The keynote speaker noted that physicians learn to incorporate evidence-based practice in providing patient care. Nurses often do not recognize research as a strategy for dealing with clinical uncertainty as they lack the confidence and skills for research retrieval, appraisal and use. It was recommended that nurses learn to identify uncertainty in practice and strategies for decision-making, learn how to use research as a servant of practice, and tap Clinical Nurse Specialists as a resource for this process. A Nurse Scientist is a valuable consultant, particularly when critiquing research and scientific reviews, and is an excellent person to coordinate a program/model of evidenced-based practice. There is a need for nurses to do more clinically focused research and publish systematic reviews of the nursing literature.

Very Respectfully Submitted,
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