Concept of Evidenced Based Practice

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Abstract

Over the last two decades tremendous advances have been made in the health science. These advances have principally been used to help clinicians. Clinical decisions are now based on information derived from research. This practice is called evidence based practice. The movement towards evidence health based practice requires that educators and practitioners engage in collaboration research. Hence the author is interested in the formation of partnership between academic institutions and health care institutions provides opportunity for research and to improve practice. Such endeavors offer exciting opportunities for educators to work with the evidence base for quality nursing interventions.

Keywords: Evidence Based Practice; Research Findings; Cost Effective Care; Best Patient Outcome.

Definition

Evidence Based Practice

The conscientious integration of best research evidence with clinical expertise and patients values and needs in the delivery of the high quality ,cost effective health care. (Brown , 1999, Melnyk and Fine out overholt 2005)

According to the encyclopedia of nursing research "Evidence based practice refers to nursing practice that utilizes research findings as the foundation for nurse's decisions, activities and interaction with clients."

By cook and levy (1998);Evidence based practice is the explicit integration of clinical research evidences with pathophysiologic reasoning, health provider experience and patient preferences in the provision of care.

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Goals of Evidence Based Practice

- Is to apply valid and reliable nursing research to clinical practice.
- Providing a high quality and cost-effective care /services within the health care system.
- Implementing effective nursing intervention to promote patient health .
- Promoting an understanding of patients and families experiences with health and illness.

Benefits of Evidence Based Practice

- Helps in critical thinking.
- Facilitate valid information gathering.
- Improve quality of clinical judgment.
- Provide cost effective care.
- Ensure positive best patient outcomes.

Background of Evidence Based Practice

- The term evidence based practice was coined in Canada in the 1980's to describe clinical learning strategies.

- In nursing, evidencebased practice began in Great Britain, Canada, and Australia.

- The term evidence based practice has emerged in 1990's to incorporate efforts to build practice patterns and protocols on the best evidence available including but not limited to research.

- This movement results from international efforts over the past two decades to synthesize research into guidelines for practice.

Steps in Evidence Based Practice

The five steps in evidence based practice is 5 A'

1. Ask (the question)

2. Acquire (findings the evidence)

3. Appraise (critically appraising the evidence)

4. Apply (acting on evidence)

5. Assess (evaluation and reflection)

Ask (the question)

Formulating a Well Built Question

The first step in evidence based practice is recognized that there is a need for new information . This information need has to be converted into an answerable question.

i.e, identifying a clinical question.

Forexample: Thequestion arise,

- Which is the best way to flush percutaneous endogastric (PEG) tube, maintain an indwelling urinary catheter, or purpose a patient for surgery ?

- And then, there are questions about the difference in patients why do male patients have a quicker post operative recovery from coronary artery bypass grafts than do female patients?

- Why do some patients quit smoking when they are pregnant and others do not?

- Why do some patients with AIDS keep recovering from infections, when others seem to weaken and die as soon as the first complication occur?

Acquire (Findings the Evidence)

Identifying Articles and Others Evidence based Resources that Answer the Questions.

Finding the Evidence will Include the Following Approaches:

- Reviewing the best available evidence, most often the results of research .

- Using the clinical expertise

- Using the values and cultural needs of the individual.

- Determining the preferences of the individual, family, and community.

Appraise

Critically appraising the evidence to assess its validity

Once you have finished some potentially useful evidence it must be critically appraised to determine its validity and find out whether it indeed answers your question.

When appraising the evidence the main questions to ask .therefore are:

- Can the evidence be trusted in research study?

- What does the evidence mean?

- Does this answer my question?

- Is it relevant to my practice?

Different appraisal and interpreting skills must be used depending on the kind of evidence being considered.

Apply (Acting on Evidence)

Once you have concluded that the evidence is of sound quality you will need to draw on your ownexpertise, experience and knowledge of your unique patient and clinical setting. This will help you to decide whether the evidence should be incorporated into your clinical practice.

You must consider both the benefits and risks of implementing the change ,as well the benefits and risks of excluding any alternatives .This decision should be made in collaborationwith your manager or multidisplinary team where appropriate.

Assess (Evaluation and Reflection)

Evaluation and reflection are necessary to determine whether the action you have taken has achieved the desired results .This is now a fundamental part of nursing practice.

Resources To Facilitate Evidence Based Practice

Evidence –Based Journals

A journal is to summarize those studies that are valid and clinically useful. The specific purpose of this journal are to identify using predefined criteria

the best quantitative original and review articles on the meaning cause, course, assessment, preventions treatment on economic of health problems managed by nurses and on quality assurances; to summarize this literature in the form of "structured abstracts" that describes the questions, methods, results, and evidence based conclusions of studies in a reproducible and accurate fashion, and to provide brief commentaries written by practicing nurses on the context of each articles, its methods and clinical application that its findings warrants.

Systematic Reviews

A Systematic review is a method of summarizing the findings of all methodologically sound studies addressing the same research question. In Systematic reviews, eligible research studies are viewed as population to be systemically sampled and surveyed.

Centers for Evidence –Based Nursing

In the past few years, a number of countries including the UK, Canada,New Zealand, Australia and others have created centers for evidence based nursing. While the specific goals of these centers vary mark seek to educate nurses through workshops or through formal courses to be evidence based nursed in practice, education and research to conduct original research and systematic reviews and to design and evaluate strategies for disseminating research findings to nurses.

Evidence Based Practice Guidelines

Clinical practice guidelines are systematically developed statements to assist practitioner decisions about appropriate health care to specific clinical circumstances. Guidelines can be used to reduce in appropriate variations in practice and to promote the delivery of high quality, evidence based health care.

Guidelines should be based on the best available research evidence should be developed with representation from as many interested parties as possible should be developed with representation from as many interested parties as possible should be tested by professionals uninvolved in their development and in the health care setting for feasibility to incorporate new knowledge.

Printed Indexes

Printed indexes are written lists of professionals articles that are organized and categorized by topic

and author , and they cover articles written from 1956 to today. They usually can only be found in formal academic libraries and being used more infrequently since the development of computerized electronic databases. Printed indexes are however, the only sources that lists and categories research that was done before 1982 . Indexes can be helpful in providing ideas for keys words to use in a computer search on a topic as well as indicating the kinds of research that have generally been done in our area of research.

Internet

The internet is the worldwide network that connects computers throughout the world. Programs called search engines can be used to search the internet; because the internet is a source of information from computers throughout the world, a tremendous and potentially overwhelming amounts of information can found on it .

Electronic Databases

Besides using search engines on the internet, you also can use the internet to make a connection with academic libraries through most university websites. Electronic database, the most commonly used sources to find research reports, provide categorized lists and complete bibliographic citations of sources of information in a broad field of knowledge .

Examples of computer databases include the cumulative index to nursing and allied health literature, which categorizes information that relates to the practice of nursing.

Model for Evidences Based Practice

During the 1960's and 1990's ,a number of different models of research utilization were developed .these models offered guidelines for designing and implementing a utilization project in a practice setting. The models are the settler model and Iowa model.

The Settler Model

The Settler model of research utilization in 1994 was designed with the assumption that research utilization could be undertaken not only by organizations, but by individual clinicians and managers.

It was a model designed to promote and facilitate critical thinking about the application of research findings in practice. It provides an enhanced approach to the overall application of research in

the service setting'.

It involves the five sequential phases:

i.   Preparation

ii. Validation

iii. Comparative

iv. Translation / Application

v.   Evaluation

Preparation

In this phase, nurses define the underlying purpose and outcomes of the project, search, sort, and select sources of research evidence; consider external factors that can influence potential application and internal factors that can diminish objectivity; and affirm the priority of the perceived problems.

Validation

This phase involves a utilization focused critique of each source of evidence, focusing in particular on whether it is sufficiently sound for potential application in practice. The process stops at this point if the evidence s sources are rejected.

Comparative Evaluation and Decision Making

This phase involves a synthesis of findings and the application of four criteria that that, taken together are used to determine the desirability and feasibility of applying findings from validated sources to nursing practice. These criteria are:

a.   Fit of the evidence with health care setting.

b.   Feasibility of using research finding.

c.   Current practice or concern with current practice.

d.   Substantiating evidence

Fit of Setting

•   Similarity of characteristics of sample to your client population.

•   Similarity of studies environment to the one in which you work.

Feasibility

The feasibility of using research findings in practice involves examining the 3R's related to making change in practice .

R— Potential Risk(Potential risk of information

to patients, staffs,and the Organization)

R—Resources need (Resources requirements and availability.)

R—Readiness of those involved (Readiness for change among those who would be involved in a change in practice)

Current Practice

Congruency of the study with your theoretical basis for current practice behavior.

Substantiating Evidence

•   Availability of confirming evidence from other studies

•   Availability of confirming evidence from a meta –analysis or integrative reviews.

The end result of the comparative evaluation is to make a decision about using the study findings .If the decision is a rejection, no further steps are necessary.

Translation /Application

This phase involves activities to Confirm how well the findings will be used .eg: formally or informally

Spell out the operational details of the application and implement them.

The later might involve the development of a guideline, detailed procedure or plan of action, possibly including plans for formal organizational change.

Evaluation

The final stage is to evaluate the impact of research based change on health care agency, personal and patients. Evaluation process can includes both for formal and informal activities by administrators, nurse, clinician, etc. Informal evaluators includeself monitoring or discussion with patient,families, and peers. Formal evaluation includes case studies audits, quality assurances.

Barriers to Using Evidence Based Practice in Nursing

There are some barriers to using evidence based practice in nursing these are as follows:

1.   Research related barriers

2.   Nurse related barriers

3.   Organizational barriers

4.   Barriers related to nursing profession

Research Related Barriers

Results reported in the literature may not merit translation into practice if methodologic flaws are extensive. Most studies have flaws, and so if nurses were to wait for perfect studies before basing clinical decisions on research findings they would have a very long wait indeed. Thus, one impediment to using research in practice is that, for many nursing problems, as solid base of valid and trustworthy study results has not be developed.

Tips to Overcome Research Related Barriers

- Collaborate with clinicians: Practicing nurses will be more willing to use research findings if researches address pressing clinical questions.

- Do high quality research: The quality of nursing studies has improved dramatically in the past two decades, but progress remains to be made to ensure valid and transferable findings.

- Replicate: Use of research results can rarely be justified based on a single study, so researchers must make real commitment to replicating studies and publishing the results.

- Communicate clearly: A general aim should be to write research reports that are user friendly with a minimum of research jargon.

- Present findings amenable to Meta -analysis: Integrative reviews of research findings are essential to evidence based practice and such reviews are increasingly using statistical methods of integration.

Suggest Clinical Implications

Nurse Related Barriers

Studies have found that many clinical nurses have characteristics that constrainthe use of research evidence in practice. Oneissue concern nurse's educationalpreparation and their research skills. Many have not received any formal instruction in research, and may lack the skill the skills to judge the merits of a study. Nurses attitudes towards research andtheir motivation to engage in EBP have repeatedly been identified as potential barriers.

Nurse-Related Barriers can be Solved as:

- Read widely and critically:

Professionally accountable nurses keep abreast of important developments and should read journals relating to their specialty, including research reports in them.

Attend Professional Conferences

Many nursing conferences include presentations of studies that have clinical relevance. Conference attendees get opportunities to meet researchers and to explore practice implications.

Organizational Barriers

Organizational barriers perhaps to an even greater degree than individuals resist change unless there is a strong organizational perception that there is something fundamentally wrong the status quo.

In many practice settings, administrators have established a system to reward nurses for critiquing nursing studies for using research in practice or for discussing research findings with the clients. Thus, organization has failed to motivate or reward nurses to seek ways to implementappropriate findings in their practice

To promote the use of research evidence, administrators can adopt the following strategies

- Foster a climate of intellectual curiosity: - open communication is important in persuading staff nurses that their experiences and problems are important and that the administration is willing to consider innovative solutions.

- offer emotional or moral support: administrators need to make their support visible by informing staff and prospective staff of such support by establishing EBP committees, by helping to develop journal clubs and by serving as role models for staff nurses.

- Offer financial or resource support for utilization:-EBP projects typically require some resources. If the administration expects to engage in activities on their own expense, the message is that EBP is unimportant to those managing the organization.

- Reward efforts for using research:- administrators use various criteria to evaluate nursing performance.

- Seek opportunities for EBP projects:- organizational efforts and commitment are essential for the type of EBP projects.

Barriers Related to the Nursing Profession

The barrier in nursing profession is practice gap

and baggage.

Practice gap- one is the shortage of appropriate role models- nurses who can be emulated for their success in using or promoting the use of research in clinical practice.

The other barrier is the historical "baggage" that has defined nursing in such a way that practicing nurses may not typically perceive themselves as independent professionals capable of recommending changes based on research results.

Finally some of the burden for changes is the profession must rest with nursing educators.

Educators could help to promote the use of research evidence through the following strategies:

• In corporate research findings into the curriculum. research findings should be integrated throughout the curriculum and when possible, the efficacy of to relevant studies, when there is no relevant research, instructors should note the absence of empirical evidence supporting the techniques.

Encourage Research and Research use

Either by acting as role models to students (e.g.:- by discussing their own research) or by demonstrating positive attitudes toward research and at use in nursing, instructors can foster a spirit of inquiry that is a precondition to effective research use.

Place Demands on Researchers

Faculty reviewers of research proposals should demand that researchers demonstrate the proposed study's potentials for clinical use; they can also demand that the researchers include a specific plan for dissemination or utilization.

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