

**EVIDENCE-BASE PRACTICE NURSING: CHALLENGES TO NURSING  
EDUCATION AND PRACTICE**

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## INTRODUCTION

Historically, health care has been founded on tradition of assumption, personal preferences intuitions and rituals, but the recent move towards accountability, quality assurance system and audit has necessitated a reevaluation of the way in which health care is delivered. Literature is replete with evidence that a significant amount of health care practices remain firmly rooted in tradition. About 15-20% of medical intervention is scientifically proven to be effective (King Fund Annual Report 1993). Women still undergo dilatation and curettage operation annually despite the fact that this procedure had been shown to be diagnostically and therapeutically pointless. In nursing the situation is hardly better. Although water is as effective as antiseptic or saline solution in the treatment of perineal trauma; it is still not widely used. In the same vein, blood pressure monitoring has shown to be unreliable, costly and time consuming but remains a routine in nursing practice.

Set against this, there is now a concerted effort to move away from ritualistic care procedures and to replace them with clinical practices founded on scientific research evidence. Underpinning this new evidence-based culture is the assumption that if care is based on sound derived empirical evidence, and then it is more likely to be cost effective, appropriate and justifiable especially in a cash strapped economy.

In this paper attempt will be made to explore the concept and use of evidence based practice in modern day nursing practice. Within this context, the justification, dilemma in incorporating research into practice will be analyzed. Barriers to the use of evidence-based nursing will be discussed. Strategies for the implementing evidence-based nursing are identified.

## CONCEPTUAL FRAMEWORK

The conceptual framework for this paper is a social interactional mode of knowledge utilization as proposed by Havelock (1992). Figure 1. Is a schematic representation of the modern? Literature on knowledge utilization reflects a variety of strategies for linking knowledge with potential users. Linkage within this model is basically a series of two-way interaction that connects user system (nurse clinician) with resources system (nurse academicians, nurse theorists and nurse educators).

The model is based on the following tenet:

- ✚ Generation of new knowledge, skills and innovation to user by resource system.
- ✚ There must be transfer of new knowledge, skills or innovation from the resource system to the user system.
- ✚ Transmission of use system to resource system
- ✚ Utilization of innovation and skills by user system.

The usefulness of this model in evidence-based nursing is that the model assumes a problem solving approach that includes diagnosing a problem or need, analyzing or clarifying the problem, obtaining pertinent information, creating a considerable alternative, developing and implementing action plan and finally evaluating and possibly refining the new knowledge skill innovation.

The major strength of this social interaction model is that it will not only make solution to nursing problems more relevant and effective but it will also build relationship of trust and mutual perception by the practice of an individual nurse or group of nurse in an attempt to enhance her understanding of various situation or to analyze dynamics of practice”

## CONCEPTUAL ANALYSIS OF EVIDENCE-BASED PRACTICE

Muir-Gray (1997) described Evidence-based practice as a clinical decision method in which the clinical uses the best evidence available in consultation with the patient. This

means not only doing things more efficiently and to the best standard possible, but also ensuring that what is done is done 'right'-so that more good than harm results.

Intuitively, few practitioners would disagree with this approach, but the problem is :we need the evidence base to know **what** it is 'right' to do; we have to be clear to **whom** the evidence really applies; and we also have to be **clear** at what stage in a person's trajectory of health or illness the evidence-based intervention is indicated. On the other hand, Sackett, Straus, Richardson, Rosebush and Hauser (1997) in the first textbook on evidence-based medicine (EBM) defined it as: 'the conscientious, explicit and judicious use of current best evidence in making decisions about the health care of patients'. Within this context, that the practice of Evidence-based nursing practice will entail the integration of individual clinical expertise with the available external clinical evidence from systematic research, and involved taking account of the patient's perspective in making clinical decisions.

In 2000, Sackett and colleagues included the value of clinical expertise and patient perspectives more explicitly in their definition of Evidence based medicine as 'the integration of best research evidence with clinical expertise and patient values'

Implicit in these definitions, relevant researches are based on investigations and treatment. Narrowing the concept down to 'investigations and treatment' perhaps makes the concept and requisite evidence base more manageable, but the majority of nursing practice cannot retreat into such a focused definition. Nursing care involves a wider-range of Interventions and needs to draw on a wide range of research-based evidence. For example, whilst there is an emerging body of research-based evidence about how best to manage leg ulcers, nurses do not 'simply' treat leg ulcers: they care for the person with the leg ulcer.

This means that, in applying these principles to the variety of nursing practice, we need to draw on a range of evidence bases in psychology and sociology.

## **STEPS IN EVIDENCE BASED PRACTICE.**

Rosenberg and Donald (1995) conceptualize evidence-based practice as consisting of four (4) stages.

These are:

- Formulating the question
- Searching the literature
- Evaluating the literature
- Implementing the findings.

Within the framework of nursing Fleming (1998) conceptualized evidence-based nursing as a five-stage process.

1. Information needs from practice are converted into focuses, structured questions.
2. The focused questions are used as a basis for literature searching in order to identify.
3. The research evidence is critically appraised for validity and generalizability.
- 4** The best available evidence is used alongside clinical expertise and the patient perspective to plan care.
- 5.** Performance is evaluated through a process of self-reflection audit and peer assessment.

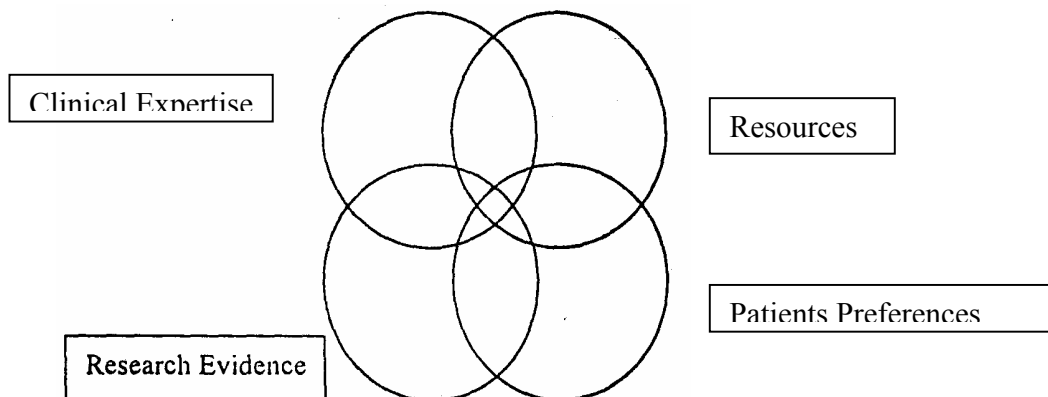
These stages appear to be straight forward but on, closer examination will highlight enormous problems which will be faced by nurses as they interpret and implement evidence-based practice in everyday nursing activities.

## WHAT CONSTITUTES THE BEST EVIDENCE?

What is the evidence?

Is it the quality of care or some other care indicator?

And how can this evidence are defined?



### ***Model for evidence-based clinical decisions (adapted from Jiaynes et.al. 1996)***

Muri — Gray (1997) in Closes and cheater (1999) argue that the best evidence should be based on the strength of the evidence.

Nursing is founded on an ethic of care, compassion and vocation and nurses were - traditionally very practical. However, research based practice demand a different set of skills:

- objectives rather than subjectivity
- quantities rather than qualities
- distance rather than rapport
- logic rather than intuition
- dispassion rather than compassion

Implicit in these diametrically opposed skills is the rejection of qualitative research methods which are often more appropriate for nursing investigations.

Secondly there is a psychological resistance to this new research ideology. Evidence abounds in literature to support this. The argument is that nurse's individualized psychological barriers are obstructing the development of a research culture.

Hicks (1997) offer an alternative and complementary explanation for the lack of confidence in nurses. To him the main problem lies in gender stereotype. According to him since nursing is numerically and historically dominated by women, nurses may not feel or believe that they are adequately prepared educationally and psychologically for the academic rigour of research.

Organizational and structural issue is undoubtedly significant inhibitors to nurses' involvement in research. The chronic shortages of nurses will militate against evidence-based nurse. This becomes imperative as more nurses leave their countries in search of golden fleeces.

Lack of time and appropriate skill may also act as barriers to evidence-based practice. Nolan Morgan, Carrant, Clayton and Parker (1998) describe a study that identified the perceived barriers to implementing research. Twenty-nine barriers were identified and the top ten are as listed in Table 11 below. All of the top six barriers relate to factors within the organization with a seventh, "Managers will not allow implementation" also being among the top ten. The greatest impediment from the research also replicated in the United Kingdom is the lack of time to implement new ideas. This therefore highlighted the need for a supportive environment where innovation is valued and rewarded.

## TOP TEN BARRIERS IN PERCENTAGES

Ranking		UK data (%)	USA data (%)
1.	There is insufficient time at work to implement new ideas.	84	72
2.	Resources are inadequate for implementation	81	68
3.	The nurse does not feel she has enough authority to Change patient care procedures.	74	75
4.	The statistics are difficult to understand	73	68
5.	The research is not easy to read and understand	72	54
6.	Doctors will not cooperate with implementation	70	71
7.	The nurse does not have time to read research	69	67
8.	Other staffs are not supportive of implementation	67	71
9.	The nurse does not know what research available.	66	76
10.	The relevant research is not available in one place	62	63

Source (Nolen et al, 1998).

The foregoing are formidable obstacles that must be addressed if evidence based practice must be in-cooperated into nursing activities. The implication of evidence-based nursing to nursing practice and education will now be analyzed.

## IMPLICATION TO NURSING EDUCATION AND PRACTICE

The following strategies are proffered as strategies for enhancing evidence based nursing.

### **Strategy1: The use of Reflective Practice**

Reflection has been conceptualized in various ways by different authors but all authors agree that the initial stage of reflection commences with a awareness of an

uncomfortable feeling due to the realization that knowledge being applied during the practice is insufficient to explain what happened.

The writer posits that nurses can reflect upon the technical aspects of practice example, the therapeutic effects of frequently used drugs. It is possible to reflect upon the social, political and economic context of practice. For example, a nurse may reflect on the financial constraints that are placed on her as a result of changes in the way health care is funded and, in the spirit of reflective practice.

### **Strategy2: Promoting research mindedness**

Nursing research as an identifiable and separate discipline has a relative short history in Nigeria. This point was proven in Olaide (1993) survey of nursing research in Nigeria. The study showed a scanty evidence of research-mindedness among Nigerian nurses. Perhaps this is traceable to the educational preparation where nursing students are actively discouraged from questioning “the facts” and are not taught to argue logically or to substantiate their argument. The way forward in this context is for schools of nursing to foster a spirit of critical enquiry of research-mindedness right from the outset of training. This will involve not only the teaching of research methodology to students but also the active incorporation of research findings into all lectures and teaching encounters.

### **Strategy 3 Formation of Nursing Research Committee**

Promoting research utilization through formation of Nursing Research Committee is perceived as a potent way to promote evidence-based nursing. The premise is that the quality of information that nurses need and how effectively they evaluate and use it for clinical judgment will influence patient outcome. Membership of this committee must cut across all cadres of nurses from different specialist for effectiveness.

Within the context of Nigeria it is suggested that clinical nurse’s must be given time and resources to be involved in all aspects of research utilization including problem

identification, assessment of evidence, change planning, implementation, and evaluation of change.

#### **Strategy 4 Use of critical thinking skills**

Development of critical thinking skill of interpretation analyses, evaluation, inference, explanation, self regulation is particularly important considering the types of decisions made in practice, the complexity of client needs, and the amount of information the nurse face in delivery care, Further more research is needed on teaching strategies for promoting critical thinking skill. The curriculum of schools of nursing must emphasize the development of critical thinking skills and independent decision-making.

#### **CONCLUDING REMARKS**

In this paper attempt has been to explore the concept of Evidence-Based Practice. Issues and concern about incorporating evidence-based practice to nursing were also explored in all attempts to justify its adoption. The barriers to using research finding were also identified. This centered on relevant, accessibility, provision of a good environment and fostering a research interest.

A patent danger of evidence- based nursing is that it may lead to “cookbook nursing” and a disregard for individualized patient care. This fear could be allayed if nurses’ balance, their clinical expertise with the risk and benefit of treatments of each patient in such a way that individuality of each patient is assured. However, it must be emphasized that when there is little research—based evidence, it is up to the nurse practitioner to use her judgment based on what is available. Conclusively, the path to evidence-based nursing is complex, fraught with pitfalls and requires massive organizational redesign and health care restructuring.

Thank you for listening God bless.

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### **Evidence Based Nursing Research**

1. Any type of antiseptic cause damage to the tissues and is not effective in reducing contamination. In general wards, it is recommended that all wounds are cleansed with Norma sol or normal saline. 0.9%
2. Wounds, both granulating and sloughs that are covered with dressings, which lead to a moist and occluded environment, heal faster than those that are allowed to dry out.

3. Completing a pain assessment chart enables nurses to assess a patient's pain more accurately and so provide more appropriate pain relief.

4. Giving patient's information preoperatively about pain and pain control methods leads to a reduction in pain during the postoperative period.

5. Patients should be fasted for 4 hours in order to ensure an empty stomach prior to anesthesia. Fasting for more than 6 hours can in itself lead to complications and discomfort.

6. Shaving leads to an increased rate of wound infection postoperatively. It is recommended that patients are not shaved or that hair, is removed with clippers or depilatory cream. This leads to lower rates of wounds infection postoperatively.

7. The use of deliberative touch by nurses for therapeutic means (for example holding of hands or hugging) has been shown to promote psychological well being in some patients.

8. In general wards, hand washing should be carried out with liquid soap or antiseptic solution rather than with a bar of soap in order to reduce the risk of cross-infection.

9. Cleansing the umbilical cord with sterile water rather than alcohol shortened the time for cord separation. No differences were found in colonization rates and no infections occurred in either group.

10. Among patients with acute upper respiratory tract infection, antibiotics have no benefit for general improvement compared with placebo, and are associated with non-

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significant increase in adverse effects. Nurses can use the information from this study to educate patients, as well as colleagues for whom prescribing practices may be well established. The decision as to when antibiotic treatment is appropriate is in the healthcare provider's realm, and patient expectations may conflict with the current.

11. The use of honey in the treatment of infected wounds. Hydrogen peroxide is produced as the solution dilutes effectively providing a slow-release mechanism. The action attributed to honey as discussed by Molan (1999) includes: antimicrobial, deodorizing, debriding, anti-inflammatory, stimulation of new tissue growth.

12. Routine primary immunization using a longer 23 gauge/25mm (blue) needle resulted in fewer local reactions in infants. The implication is that it helps minimize the adverse effects accompanying infant vaccination. This could enhance public acceptance of immunization.

13. Injection of insulin through clothing was as safe as, and more convenient than, the conventional injection technique requiring skin preparation. The findings of the study will help patients with diabetes incorporate insulin injections unobtrusively into their daily routines and reinforce the need for additional investigations on real life experiences and practice of people with diabetes.