

# Nurse Author & Editor

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### Systematic Reviews of the Literature: So What? Why Bother? Who Cares

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#### So What?

Decision making in healthcare has changed immensely over the years. There are a larger number of health professionals with more autonomy and responsibility in addition to consumers who expect to be consulted and included in decisions made about their health. When we seek to implement new treatments or care processes in healthcare, how do we decide what to do? How do we know what is the best thing to do? What is the knowledge base that underpins the decision to change what we currently do in our practice or to start something new – and where did it come from? Can we be confident in that knowledge and how can we access it in a timely, efficacious manner?

In general, there are four ways we gather knowledge. These are: (1) empirical knowledge based on demonstrable, objective facts; (2) intuitive knowledge based on feelings and beliefs; (3) logical knowledge derived from reasoning from something we already know into a new finding; and (4) authoritative knowledge based on information received from people, books or a higher knowledge.

In 1928, while tidying up his laboratory, Sir Alexander Fleming found mould growing in a Petri dish. What was unusual, was that the mould had contaminated a staphylococcus culture in the dish and killed the bacteria. As you reflect on this discovery, which led to the discovery of the miracle drug penicillin by scientists Ernst Boris Chanin and Sir Howard Walter Florey, you realise this chance finding was based on an observed demonstrated occurrence and logical deduction. The evidence of a mould killing bacteria led to the development of a powerful drug that, after being tried and tested, saves lives worldwide.

Such is the concept of evidence-based healthcare. Not all examples of evidence-based healthcare are as dramatic as the discovery of penicillin or so left to chance. As providers and consumers of health services, we want to be assured that the services and treatments we give and receive are founded on the best information available and on the best clinical experience, and are developed and provided with our personal and professional values in mind. These fundamental principles of evidence-based healthcare are a component of health planning and funding for health services, and are taught to student health professionals (Pearson, Field & Jordan 2007).

#### Developing an Evidence-based Approach to Practice

The move toward evidence-based practice is largely due to the efforts of Archibald Cochrane (1901-88), a Scotsman who was a physician and epidemiologist. Cochrane was the first to recognise that the results of research would be more likely to influence clinical practice more than 30 years ago. If they could be systematically reviewed and if well-founded findings could be aggregated, or combined to show strength of argument. Evidence-based medicine has since been further qualified as "the integration of best research evidence with clinical expertise and patient values" (Sackett, Straus & Richardson 2000, p 1) and "the integration of best research evidence with our clinical expertise and our patient's unique values and circumstances" (Straus 2002).

Evidence-based practice is an approach to health care in which nurses use the best evidence possible, ie, that which is founded on the most rigorous information available, to make informed clinical decisions for individual patients. As such, the clinician uses the best evidence available, in consultation with the patient, to decide on the option which suits that patient best of all (Muir Gray 1997). To provide this focused type of care for their patients, in addition to clinical expertise, nurses need access to the evidence, the ability to examine evidence, and the ability to apply that evidence into their practice (Pearson, Field & Jordan 2007).

With large amounts of information available electronically from multiple sources, time poor nurses are challenged to find that which is substantiated by evidence. Increased demands on health professionals have made it harder for them to take time to evaluate and change their practice, even though this is fundamental to improved health outcomes for patients. To improve health outcomes requires a search of research and other reports that is rigorous and comprehensive so they may select and deliver the most effective and beneficial care to their clients (Pearson, Field & Jordan 2007, p 2). To find research and other reports that are rigorous and comprehensive, nurses need access to the correct information, the skills to appraise that information, and the ability to implement it into clinical practice. There are a range of views about which are the key questions to ask such as: What evidence is required? What is best evidence? And, how is best evidence generated? Regardless of your position, you, the professional nurse, need to be aware of the current literature, have the ability to evaluate the quality of the available research, be able to review your decisions as new evidence appears, and have the ability to implement care that is supported by systematic research. Literature that summarises the mass of information available on an area of interest and extracts from that information which nurses and health practitioners can use to make clinical decisions has made it easier to incorporate evidence into practice.

### **Why Bother?**

Systematic reviews of the literature are a deep, intense analysis of a cross-section of literature about a particular area within a topic. For example, the topic may be nurse education and the area of interest health promotion.

Systematic reviews of research literature analyse the evidence presented within the reported research and synthesise the information, or data, to prepare a report from which health professionals can make informed decisions and choices about the care of an individual. The findings of reported research are pooled in such a way that the effectiveness of interventions or activities can be determined.

When seeking an answer to a particular clinical question, a nurse or health clinician may look confidently to a systematic review for the answer. Systematic reviews are considered to be at the top of the evidence chain because they systematically search for and identify information and summarise the available evidence. An additional advantage, the synthesised information may also be applied to generate clinical practice guidelines that consist of statements to assist care processes and practitioner and patient decisions, eg, strategies and their implementation for the cessation of smoking (Pearson, Field & Jordan 2007).

### **Who Cares?**

Dedicated to facilitating the provision of the best available clinical, education, and research information available for its readership, editors of peer-reviewed nursing journals constantly look for the opportunity to facilitate nurses' knowledge and currency of health information. Publishing systematic reviews encourages nurses to acquire an understanding of the processes involved in

developing systematic reviews of the literature, facilitates an evidence-based approach to nursing practice, provides access to synthesised information from sources that have been evaluated for rigour, and provides a niche marketing opportunity for the journal. The challenge is in nursing journals realising and assessing the potential of systematic reviews of the literature for which they may require dedicated space. Enlisting sub-editors who understand systematic reviews and the educational type of information readers require is a strategy likely to promote the success of such an initiative.

## References

Muir Gray J (1997) Evidence-based Healthcare: How to make Health Policy and Management Decisions. Churchill Livingstone, London.

Pearson A, Field J & Jordan Z (2007) Evidence-Based Clinical Practice in Nursing and Health Care. Assimilating Research, Experience and Expertise. Blackwell Publishing, Carlton, Victoria, Australia.

Sackett D L, Straus S E & Richardson W S (2000) Evidence-Based Medicine: How to Practice and Teach EBM, 2nd ed. Churchill Livingstone, Edinburgh.

Straus S E (2002) Individualising treatment decisions. The likelihood of being helped or harmed. Evaluation & the Health Professions 25, 210-224.

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