

Editorial - Educational

Translating Nursing Research - Bedside to Bench

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The obvious progression of contemporary science into medical and nursing health services research is manifested in a model which aims to improve the dissemination of knowledge from basic science into patient care. A very basic research model of bench to bedside has given rise to changing associations through the promotion of a two-way flow of knowledge with clinical improvement playing a key role in the application process.

Translational research has become very popular and forms the bedrock of the many research strategies produced by academic and health services institutions. The inclusion of translational research fulfills many objectives, particularly in times of scarce resources. It is projected as a gateway, which is supposed to fill a gap between knowledge produced at the university laboratory bench and its use at the clinical bedside. On the other hand, it could be argued that the 'Bench to Bedside' model serves as a means of helping society through recycling the many benefits of a government's financial investment in scientific research to serve patient's benefit.

The purists of the translational research approach suggest that it is a two-way process: Bench to Bedside and Bedside to Bench. It is unfortunate that the implementation of Bedside to Bench initiatives have been limited because our understanding of human disease remains limited and pre-clinical models tested on the bench, far too often fail, when applied to humans in a clinical context. It has been suggested that the reason for this is two-fold: firstly, the scientific aspects are poorly understood by clinicians and secondly, the complexity of illness and resulting interventions with humans is not appreciated by basic scientists.

The importance and significance of developing the Bedside to Bench model became increasingly apparent during discussions between the staff of a hospital and the staff of a university in developing a nursing research strategy. It was agreed that the main aim of the strategy must be to enhance best practice in nursing through the promotion of inquiry and an evidence-based nursing approach (EBN) to patient care. EBN promotes the increasing body of nursing knowledge, supported by different levels of evidence for best practice and application to patient's care. The basic premise is that in healthcare, there is a need for the health profession of medicine and nursing to enhance the evidence-based on which they practice. In developing the nursing research strategy, some challenges were identified in setting up the Bedside to Bench model. First, how do we determine how much nursing practice is based on evidence, and second, how do we close the gap between what is known and what is practiced?

The nursing research strategy sets out some key objectives. The first stage is the identification of current nursing research activity and research active staff and the determination of nursing research priorities for the hospital. The Bedside to Bench model would facilitate an analysis of existing nursing practice through a systematic process of inquiry, and the application of evaluation and research methodology through collaboration between clinical nursing staff of the hospital and staff of the University. Simply, the Bedside to Bench model would aim to identify areas of nursing practice/policy/procedure, which requires analysis and update. Following an evaluation of the specific practice/policy/procedure through a systematic review process, best practice would be determined, and a proposal to test the new area of practice through a research initiative would be developed and introduced. Following testing and completion of the research on the new procedure/policy, the objective is to establish new policy and practice which incorporates the new and updated evidence, with transference to patient's care.

The problem of getting research into practice is an on-going challenge, and the lack of utilization of research is an international problem, and it has been suggested that in health care, 30 to 40% of patients do not receive treatments based on proven effectiveness and up to 25% of patients receive unnecessary care or care that is potentially harmful¹.

The Bedside to Bench model offers much hope in applying research to patient care and it would build a dynamic research culture underpinned by capacity building, capability and increased research outputs. In the final analysis and consistent with the ideology of applying evidence to care, the main aim of the new nursing research strategy is to improve the care for patients and their families through knowledge translation.

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