Aquichan
ISSN: 1657-5997
ISSN: 2027-5374
Universidad de La Sabana

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Practice Based on Scientific Evidence as the Foundation of Clinical Practice
Aquichan, vol. 19, no. 3, e1931, 2019, July-September
Universidad de La Sabana

DOI: https://doi.org/10.5294/AQUI.2019.19.3.1

Available in: https://www.redalyc.org/articulo.oa?id=74161171001

EDITORIAL

Practice Based on Scientific Evidence as the Foundation of Clinical Practice

Práctica basada en la evidencia científica como fundamento de la práctica clínica

Prática baseada em evidências científicas como base da prática clínica

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KEYWORDS (SOURCE: DeCS)

Evidence-based practice; nursing education; quality of health care; nursing; clinical decision-making; health transition; research.

PALABRAS CLAVE (FUENTE: DeCS)

Práctica clínica basada en la evidencia; educación en enfermería; calidad de la atención de salud; enfermería; toma de decisiones clínicas; transición de la salud; investigación.

PALAVRAS-CHAVE (FONTE: DeCS)

Prática clínica baseada em evidências; educação em enfermagem; qualidade da assistência à saúde; enfermagem; tomada de decisão clínica; transição epidemiológica; pesquisa.

DOI: 10.5294/aqui.2019.19.3.1

To reference this article / Para citar este artículo / Para citar este artigo
Moreno-Monsiváis MG. Practice Based on Scientific Evidence as the Foundation of Clinical Practice. Aquichan; 19(3): e1931. DOI: https://doi.org/10.5294/aqui.2019.19.3.1

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Surely, all of us in the field of health have heard the following said at some point in our academic and professional practice: "Clinical practice must be based on scientific evidence that is the product of studies of good methodological quality". Accordingly, this invites us to move towards evidence-based practice (EBP), as well as to develop research with experimental designs and to use the results obtained with high quality standards, which provide evidence that can be transferred to practice and have a positive impact on health (1).

There is an increasing amount of literature that supports the importance of applying EBP because it achieves the best result for patients; improves the quality of health care; reduces variations in practice; lessens error in clinical interventions; and allows for medical care that is lower in cost, safer and is a source of greater professional satisfaction. One can say that EBP makes it possible to provide health care in a way that is equitable and effective for the entire population (2).

Health professionals recognize the need and the benefit of transitioning from traditional practice to EBP in a clinical setting. However, there is an obvious gap between scientific evidence and its use in clinical practice. This obliges us to think about why in today's world, with know-how being increasingly accessible, there are still health institutions where the traditional approach to care takes precedence. Some studies report that most clinical nurses use on their own knowledge (acquired through nursing education or personal experience), the knowledge and advice of their colleagues, and nursing literature. Rarely, do they rely on research-based evidence (3, 4).

There are a number of barriers to implementing EBP, such as the nurse's workload; a lack of time for reading, as well as inadequate know-how and skills to search for bibliography and to analyze and summarize scientific evidence so as to be able to transfer it to clinical practice; poor organizational support and a shortage of resources to facilitate access to electronic databases; and not enough knowledge about how to manage those databases and critically evaluate research results. All of this makes it difficult to close the gap that still exists when it comes to establishing a foundation for nursing care based on evidence (3, 4).

The restrictions that interfere with this transition can be individual, professional and organizational (4, 5). The most important *individual* ones include a limited knowledge of EBP, the weight of habit and an attitude of resistance to change. The *professional* ones are linked to academic preparation (clearly, not all nursing professionals involved in clinical practice were trained in the EBP model). The *institutional* restrictions pertain to the organization itself; namely, complex environments, leadership styles, the particular interests of the organization, structures, communication and available resources.

If we recognize the fact that scientific evidence is increasingly accessible to health professionals and must be transferred to practice, combined with what we know are the primary benefits and barriers that limit its application in clinical settings, it is appropriate to ask ourselves why this transition still poses such a tremendous challenge, what measures should be taken, and who are responsible for carrying them out.

To answer these questions, it is important to bear in mind that more of an effort is required from all who are involved: the health professional, researchers, educational institutions and health organizations, where each participates actively with a common goal, which is to ensure that clinical decisions are based on evidence.

As to what measures should be taken, one of the main strategies that has proven to be useful in making the transition to EBP is education and, in this sense, the educational institutions that train nursing professionals play a fundamental role. Having said this, it is recommended that EBP education be introduced into the nursing curricula in a measured way throughout the training process, so students are able to develop the skills and abilities required at different levels

At the undergraduate level, the objective is to stimulate critical thinking and intellectual curiosity about clinical practice, to learn to ask good clinical questions, and to develop knowledge and the ability to locate, read and evaluate the evidence that is found (in terms of its clinical validity, methodological reliability and applicability). In other words, students must be able to select the best evidence, apply it in nursing practice, and evaluate the results.

In master's degree programs, the skills being learned should be directed toward creating future professionals who can play a leadership role in nursing care that allows them to identify and prioritize the main problems in practice, to locate the best available evidence, and to apply it.

In doctoral programs, the goal is to develop advanced skills to review, evaluate and summarize evidence, to make recommendations in practice, and to lead teams that disseminate and apply the best possible evidence in clinical practice (6).

Although education is certainly an essential strategy, organizational commitment and administrative support are also crucial. It is important to remember that organizations will have nursing professionals with different levels of advancement when it comes to their knowledge and skills for EBP. This requires strategic planning that makes it possible to integrate everyone at different levels.

In this respect, Fisher, Cusack, Cox, Feigenbaum and Wallen (7) emphasize that organizations need to have a methodologically structured plan to allow health professionals to develop their skills gradually. This should be combined with a mentoring program in EBP that accompanies staff members and empowers them to ensure an active role for EBP and its sustainability. To accomplish this, the first step is to assess the current knowledge and beliefs of nursing professionals, and to gauge how prepared the organization is to implement EBP. It is necessary to identify the level at which the various staff members are situated and, based on that information, to advance through five levels in keeping with Benner's classification of skill acquisition levels (8).

Level 1 pertains to *orientation.* It is at this point that nurses are expected to learn the concept of EBP. Level 2 is for *beginners* and its goal is for the nurse to develop the necessary ability to apply specific skills, such as asking a clinical question and accessing the literature through the use of databases. Level 3 is the *intermediate* one. It is where most nurses are expected to achieve, within a year of practice, the basic skills required to develop a clinical question that specifies a population and an intervention, with clarity as to what intervention is being compared and the anticipated results (a PICO question). Level 4 is the *advanced* level. Here, the aim is for nurses to be able to ask a clinically relevant PICO question, to access the literature, to critically evaluate research articles, to transfer or apply the intervention to the context, with the necessary adjustments, and to evaluate its results. Nurses who achieve this level can direct EBP activities in their area of practice, identify and develop the necessary changes, and evaluate their effectiveness in practice. Level 5 is the *champion* (expert) level where nurses are expected to conduct advanced literature searches and critically evaluate the literature, develop guides for clinical practice, disseminate evidence-based interventions, and assess and overcome the barriers to adopting evidence in practice (7).

As to how prepared the organization is, it must have the organizational commitment and administrative support that are required to grant the resources and the time necessary for a systematic program to be developed in the long term, with a methodology that allows for change. Leaders must be involved in order to strengthen a culture that supports the transition to EBP, with the conviction that it has a positive impact on the quality and safety of care (9).

The ultimate goal of EBP is to develop a culture at health institutions that allows for introducing new practices or modifying existing ones in a way that benefits the health of the population in a sustainable way. Therefore, the challenge and the commitment implied in the transition to EBP apply to all health professionals, together with researchers, the educational sector and the organization itself. Individual efforts are not the solution. An alliance between clinical nurses, academics and researchers is a fundamental strategy to improve the transfer of knowledge to practice (10).

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