## Research in health: an essential tool to improve the clinical practice of nurses

Pesquisa em saúde: ferramenta essencial para aprimorar a prática clínica do enfermeiro

Investigación en salud: herramienta esencial para mejorar la práctica clínica de enfermeros

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In a knowledge society, whose cornerstone lies in the ability to investigate, innovate, and produce information, scientific research in health represents a fundamental support tool to improve people's quality of life and the level of development of countries.

In this context, universities play a unique role, considering that a significant part of knowledge is generated, disseminated, and disclosed to society by their products. And, considering that human resources qualified in research derive from the doctorate course, it is essential to encourage and value doctoral training, especially in the field of nursing.

Nurses represent nearly 60% of the global workforce in the health sector and perform essential job functions at all levels of care1. Nursing constitutes a key element in contributing to the targets of the Sustainable Development Goal 3 (Health and Well-Being) of the United Nations, especially if strengthened by scientific research.

The use of research is a mandatory prerequisite in evidence-based practice. Evidences represent current truths on certain topics; they do not express value judgments, as they result from scientific research in which rigorous procedures were used and validity criteria were adopted to minimize biases<sup>2</sup>. They are essential in the selection of materials, equipment, processes, and models of care that have proven safety, efficacy, or effectiveness. In the accreditation of health institutions, the use of evidence to support clinical practice is mandatory.

The global campaign "Nursing Now," which strives to value nursing worldwide, highlights the dissemination of innovative and effective practices in this field of knowledge based on scientific evidence as one of its main goals3.

Florence Nightingale pioneered in the use of evidence as a strategy to influence changes in clinical practice and health policies<sup>3</sup>. Currently, countless of them positively impact investigations in the daily care practice and, in particular, in the field of quality and safety that permeate the care process.

The report To err is Human, published by the Institute of Medicine, was essential to guide institutional policies on patient safety. It is a product of investigations in North American hospitals, whose focus was the evaluation of adverse events4.

Patient assessment scales, developed by research, represent an essential apparatus in providing safe and quality care. In nursing, scales — such as the Braden Scale and the Morse Fall Scale — are widely used to assess the risk of pressure ulcer and falls, respectively. In the context of critical care, there are several scales of major importance, including the Glasgow Coma Scale, the Richmond Agitation-Sedation Scale (RASS), the Sequential Organ Failure Assessment (SOFA), and the Simplified Acute Physiology Score (SAPS).

Evidences on the implications of indicators sensitive to nursing care for the quality of care showed that mortality and nosocomial infections were the most used outcome indicators. Associations of these indicators with independent variables related to the nursing team were used to show the impact, for example, of the proportion of nurses on the healthcare team or the total number of nurses on patient mortality<sup>5</sup>.

In Magnet® hospitals, evidence about the contribution of research to the advancement of clinical nursing practice showed

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that the findings of the investigations were implemented in the services, improved care processes, reduced the length of stay, infection rates, and hospital costs in addition to positively impacting the satisfaction of the patient/family and the nurse<sup>6</sup>.

Despite the contributions of research expressed in the everyday practice, there is still a long path to be followed. In this sense, some initiatives that can promote nursing are the use of economic techniques to evaluate nursing interventions and the assessment of the implementation of evidence for supporting decision-making in clinical, managerial, economic, and public-policy terms. In order to advance, it is important to create a nursing research culture.

In health institutions, some challenges must be overcome to create a research culture in nursing. A significant part of problems to be solved by investigations originate from clinical practice, and nurses are protagonists in identifying priorities in research. The adequate use of evidence requires a reflective and critical attitude from professionals, the use of academic language, and knowledge of statistics and epidemiology. Furthermore, it is worth having an organizational support structure with an adequate computer system, a research support service, and a healthy work environment<sup>7</sup>.

Unquestionably, scientific research constitutes a fundamental apparatus for the empowerment of nurses with a view to transforming clinical practice, in addition to contributing to the production of evidence about the "value" of nursing care in society.

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