EDITORIAL

TECHNOLOGY: DEFINITIONS AND REFLECTIONS FOR NURSING AND HEALTH CARE PRACTICE

The theme of this edition, "Technolodies, Models, and Processes in Nursing and Health Care", pushes us to reflect upon the influences of technology upon human development in this century. Far from having exhausted the subject, we seek in this context to better understand that technology is important to health care in that it has implications for the interpretation of history, contemporary practice, the future of professions, and above all because it influences social actions, conceptions, and agreements.

Among its diverse conceptions, technology incorporates the desire to influence the world around us. In its traditional fashion, technology manifests itself as both old and new objects and resources which attempt to increase and improve treatment and care in health care practices. It also manifests itself in the way in which health care knowledge and abilities associated with the use and application of the resources and objects that professionals maintain and access on a daily and progressive basis. In its current perspective, technology has manifested itself more and more within a technological system, in which governments, organizations, and people are integrated to an objective of maximizing efficiency and rationality. It is understood, thus, that it would be an error to suppose that technological innovation has merely a unilateral effect.

Technology reveals the way in which people deal with nature, and create the conditions for interaction, which we then use to relate to one another. New technologies, present in the moments of people's lives alter the structure of their interests, or rather, the things about which they think. They alter the character of the symbols, or the things of which we think and alter one might as well say the nature of communities as the arenas in which thoughts are developed. However, it would also be an error to define technology simply as instruments and techniques, or to associate it to the comprehension of superiority, specialization, and/or professionalism.

Technology has three layers of significance: that of physical objects, such as instruments, machines, material; that of a form of knowledge, in which significance is conceived to an object through our knowledge of how to use it, repair it, protect it, and produce it; and yet as it forms part of a complex set of human activities. It should be comprehended as a creation and as a phenomenon, for it transcends the simple definition of machinery. Before this complex scenario, it is necessary to reflect: How has Nursing positioned itself? What paths can be constructed for health care, in the sense of taking advantage of the opportunities that at times present themselves and interact, produce, and manage technologies applied in the field of professional performance?

There is no doubt that this rapid growth which we denominate "technoscience" will continue to demand that professionals are more and more prepared to direct and accompany the use and development of technologies in a way that promotes convergence between human and technological development, in an attempt to reach a healthy and solidary social competence.

Since the 1940s, we have experienced a rapid expansion of knowledge and abilities and in the manner in which technologies have expressed themselves, in the most varied areas of health care: in education, in care, in research, and in management as a direct result of scientific and technological development. This expansion has motivated the evolution of specialized services, communities, clinics, and people within the environments that are references in client care, changing values, policies, economics, and human relations. Thus, the nursing practice continues to be revolutionized through the impact of technology. We have worked with innovations which have challenged us and think in new and different modes of nursing practice and science. These technological advances have inspired us to permanently reflect upon what Nursing **HAS BEEN, IS, and WILL BE**.

Upon reflecting upon the impact of technology in nursing practice, we will need to comprehend that it is crucial to have balance between technology and the real presence of the nurse in order to fulfill the role of nursing in the health care system. Rather, what determines if a technology de-humanizes or de-personalizes or objectifies nursing care is not technology in and of itself, but principally how technologies operate in the context of people; which are the significances that are attributed to it; how an individual or a cultural group defines what is human; and what the potential is for the technique to emphasize rational order or efficiency. As with technology, human care is a socially constructed reality. The power that any technology exercises is derived from how it acts in a given situation and its significance.

Technology is not then a paradigm of care opposite the human **touch**, but above all an agent and an object of such a **touch**. Technology in and of itself can only be a factor which humanizes, even in the most technologically intense arenas of health care. The dualities of technology as a product and as meaning; material and meaning; product and process, rest not in its necessary opposition to humanization, but especially in its resourcefulness. That is, they rest in its existence as both material objective force and as a dynamic socially constructed reality.

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