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Promoting networks between evidence-based medicine and values-based medicine in continuing medical education

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Abstract

Background: In recent years, medical practice has followed two different paradigms: evidence-based medicine (EBM) and values-based medicine (VBM). There is an urgent need to promote medical education that strengthens the relationship between these two paradigms. This work is designed to establish the foundations for a continuing medical education (CME) program aimed at encouraging the dialogue between EBM and VBM by determining the values relevant to everyday medical activities.

Methods: A quasi-experimental, observational, comparative, prospective and qualitative study was conducted by analyzing through a concurrent triangulation strategy the correlation between healthcare personnel-patient relationship, healthcare personnel's life history, and ethical judgments regarding dilemmas that arise in daily clinical practice.
In 2009, healthcare personnel working in Mexico were invited to participate in a free, online clinical ethics course. Each participant responded to a set of online survey instruments before and after the CME program. Face-to-face semi-structured interviews were conducted with healthcare personnel, focusing on their views and representations of clinical practice.

Results: The healthcare personnel's core values were honesty and respect. There were significant differences in the clinical practice axiology before and after the course ($P < 0.001$); notably, autonomy climbed from the 10th (order mean (OM) = 8.00) to the 3rd position (OM = 5.86). In ethical discernment, the CME program had an impact on autonomy ($P \leq 0.0001$). Utilitarian autonomy was reinforced in the participants ($P \leq 0.0001$). Regarding work values, significant differences due to the CME intervention were found in openness to change (OC) ($P < 0.000$), self-transcendence (ST) ($P < 0.001$), and self-enhancement (SE) ($P < 0.019$). Predominant values in life history, ethical discernment and healthcare personnel-patient relation were beneficence, respect and compassion, respectively.

Conclusions: The healthcare personnel participating in a CME intervention in clinical ethics improved high-order values: Openness to change (OC) and Self Transcendence (ST), which are essential to fulfilling the healing ends of medicine. The CME intervention strengthened the role of educators and advisors with respect to healthcare personnel. The ethical values developed by healthcare professionals arise from their life history and their professional formation.

Keywords: clinical ethics, values, continuing medical education, concurrent triangulation strategy, axiology

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Background

In the 21st century, medicine tends to be dominated by two paradigms, evidence-based medicine and values-based medicine (EBM-VBM), which directly impact clinical decision-making processes in daily healthcare practice[a] [1-6].

Modern biomedical science faces the challenge of reinforcing the pairing of EBM-VBM and constructing links and networks between them [7,8]. Continuing medical education (CME) promotes career-long competence with respect to medical advances (EBM); moreover, it can support fine-tuning of professional values and principles (VBM) [1,2,4,5,7,9-12].

Values are normative guidelines that allow us to consider actions, objects or situations as good, desirable, pleasant, convenient or useful towards certain aims [13]. These aims and the values that guide us towards them lend a mindful sensibility to our life and our professional practice [14]. Clinical practice is axiologically[b] complex because it is not limited to describing, explaining or predicting what takes place within the human body (epistemological values: EBM), but it also acts on the bio-psycho-social spheres of a person and relates to his/her dignity [15,16] (social, political and ethical values: VBM). Furthermore, biomedical technical qualities are as important to healthcare as ethical qualities, yet ethical qualities are not always empirically evaluated. Emerging actions, devices and technical/scientific biomedical scenarios present increasing uncertainty and pose exponential risks that underscore the necessity of promoting an analytical-empirical axiology that places practice along a horizon of wisdom [7,17-22].

The healthcare sector is currently facing a crisis of knowledge, compassion, care, cost and values in general; however, few programs have addressed values among healthcare personnel, and little data exist concerning the effectiveness of such programs [23-27]. Values have a strong impact on the decision-making process and the final course of actions [27]. In other words, patients complain more about the lack of courtesy, warmth, understanding, care and communication than about the lack of updated attention protocols.

Values are favorable dispositions towards aims that are sought. A physician is willing to act in accordance with the ends of medicine (healing, curing and caring) because they guide and give sense to his/her practice. These ends in medicine have traditionally been traced by clinical ethics in the form of principles and virtues. Principles state the deontological obligations of healthcare personnel and aim to offer an answer to ethical dilemmas. Principles will always be grounded on values. Principles explicitly state the values that we consider important [28], they express a normative procedure according to which actions can be guided to reach these values. [29]. Virtue ethics have resolved some of the shortcomings of principlism by arguing for the importance of the character traits and decision-making in moral discussions. If we think of a Venn-Euler diagram, values are the universe, while virtues and principles are subsets. That is, every virtue is a value, but not every value is a virtue; and the same goes for the principles; they are the expression of a normative procedure that is grounded on values, but at the same time they are valuable themselves (Figure 1). However, values have a broader focus, and they encompass virtues and principles alongside other objective goods that must be considered in ethical discernment (Figure 1).

Life preservation is a value that, in order to be upheld, is supported by several epistemic and ethical virtues and principles. Virtues such as wisdom, temperance and compassion aim at life preservation. In addition, principles such as beneficence are important in preserving life because they specify the obligations and provide explicit guidance to the agents' actions. However, in this paper, we maintain a broad perspective regarding values that allows us to move between virtues and principles and to consider the personal and social dimensions of patients and healthcare personnel in addition to the states of affairs that are valuable in strengthening the convergence of EBM-VBM (Figure 1). We acknowledge the great influence of virtue ethics and the principles of biomedical ethics, but it is our contention that a general and wider analysis can be carried out. Beauchamp and Childress' principles, in fact, express a normative procedure to uphold several values. For example, respect for autonomy demands action on behalf of the physicians towards an agent with the right to hold views and make choices based on personal values and beliefs. This principle specifies the actions to be carried out by someone

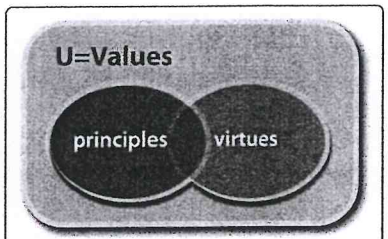

Figure 1 A Venn-Euler diagram of values. Values are the universe, while virtues and principles are subsets. The subset of virtue considers those values that refer directly to the healthcare personnel, their traits of character and decision-making. The subset of Principles expresses a normative procedure according to which actions can be guided to reach certain values [29].

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