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Editorial

Is Evidence-Based Medicine the Best Clinical Practice?

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Abstract

Evidence-based medicine (EBM) has existed for over 30 years, and its impact has percolated into different healthcare fields. It integrates the current scientific evidence, the physician's clinical expertise and the patient's values in managing disease to improve the treatment outcome [1]. The idea of EBM is attractive, given that the clinical evidence is up-to-date, the physician is knowledgeable about all the proven and less evidenced treatments, and the patient understands the pros and cons of the different management approaches and can intelligently discuss with the physician.

Over the years, emphasis has been put on performing more randomized controlled studies to provide evidence for a particular treatment, and the components related to physicians and patients are becoming more sidelined. So, does having all the evidence-based information and having patients make choices translate into better patient outcomes?

Studies take time, and significant changes may occur in the diagnostic or treatment landscape from when the trial is initiated to when the results are available [1]. Recommendations, therefore, generally fall behind scientific progress. Thus, guidelines based on current evidence may not be up-to-date and typically do not encompass therapies with low evidence. Clinicians, therefore, rely on unimodal and standard treatment based on guidelines for treatment, rendering them more reluctant to explore, discuss and embrace emerging, complementary, alternative therapies and approaches from other disciplines. Thus, the clinical practice of physicians becomes relatively uniform, and ultimately patients have limited choices.

The concept of EBM has shortcomings. It looks like medical or surgical treatment success depends on evidence-based knowledge alone. Human factors are not considered. Many studies on best clinical practice and peer-nominated excellent clinicians have shown that the best clinical practice does not rely on EBM alone; it also hinges on physicians' other attributes, including their openness to new knowledge, to cultural, religious, and ethnic differences, to ideas and suggestions from colleagues and even from patients [2]. Moreover, humility is essential, enabling physicians to strive for self-improvement [3]. Also, it can facilitate the physicians to relinquish certainty, which has been reported to be associated with the power to control the medical decision-making process [3]. Having humility facilitates the physicians' dialogue with the patients and, thus, gives the patients a greater voice in the treatment decision-making process [3]. Empathy, compassion, and passion are other attributes that have been found essential for physicians to be regarded as good doctors [4].

The willingness of physicians to explore and discuss new knowledge with patients is important, as some emerging, complementary or alternative therapies with low levels of evidence may help improve the outcome of the condition that the patients have.

Indiscriminate disregard for these treatments or waiting until they have the level I evidence may reduce the possibility of the patients receiving effective complementary therapies. Hydrogen gas has been reported to shrink metastatic brain tumours [5] and to reduce the pain intensity of psoriatic arthritis [6]. Yet, without checking the literature, an oncologist challenged the patient," How come you dare to use hydrogen? It can explode". Similarly, carbon dioxide foot bath has been reported to improve the healing of diabetic ulcers, saving feet from amputation [7]. Yet, the therapy has no randomized controlled studies. So it is not regarded as an adjunctive treatment in managing diabetic ulcers. Patients who ask for the treatment are given the reply that the method has not been proven. Without alternatives, the patients are advised to amputate the diabetes-afflicted foot surgically.

Thus evidence-based medicine does not equate to best clinical practice as far as the patient is concerned, though it is a significant construct in patients' outcomes. With the advent of the internet, patients routinely "consult" with online resources and request treatments that may not be in line with standard protocols stipulated by their physicians. Physicians must prepare for the increasing need to discuss different therapies with lower levels of evidence with the patients. Humility and openness to new knowledge are thus essential for physicians to partner with their patients in decision-making. The role of physicians is likely to gradually change from one that controls the medical decision-making process to that of a partnership, especially in the artificial intelligence era.

Currently, most medical and healthcare curricula do not have training on humility, open-mindedness, compassion, and empathy. It is time to consider whether including such training in the course frameworks is appropriate.

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