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Editorial: Clinical practice can save evidence-based medicine from itself

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The April issue of the *Journal of Clinical Epidemiology* published a series of essays by pioneers in evidence based medicine (EBM).¹⁻⁵ The origin of this journal, *Clinical Research in Practice: The Journal of Team Hippocrates*, stems from recognition of perspectives enumerated by these pre-eminent scholars, researchers, and educators. While it is important to recognize these perspectives, it is difficult to learn from words on a page. Although imperfect, the structure of this journal and its publications are demonstrations of clinicians attempting to actualize the wisdom of these foundational thinkers. We need to leave examples and guideposts to the next generation of clinicians of how to fulfill this vision of being excellent clinicians, through both formal education and role modeling.

Giovanni Fava describes the limitations of EBM as we currently know it. Clinical trials answer questions that patients don't care about, clinicians overestimate benefits, large randomized controlled trials benefit industry rather than patients, and guidelines tend to systematize conflicts of interest.⁵ Clinical research is reductionist, looking for a single answer that applies to a population. However, practicing clinicians care for individuals, which can sometimes be messy. No single answer can be right for every patient. Citing George Engel's biopsychosocial approach, Fava argues that the reductionism of EBM is inconsistent with the holistic approach to patient care.

In defense of EBM, Gordon Guyatt responds by detailing what the EBM community has done to address Fava's critiques.³ Safeguards include increasing awareness by physician-readers to financial conflicts of interest, examining publication bias, understanding dangers of unexamined composite endpoints, caution regarding overemphasis of small effects, healthy skepticism of claims based on sub-group analysis, and avoiding spin by authors found in the discussion section of papers. He also describes his own clinical practice, where he is able to be mindful of patient values and preferences, while including evidence from clinical research. By doing so, he describes how he avoids the reductionism of EBM.

Offering a third viewpoint, John Ioannidis returns to the seminal definition of EBM: "Individual clinical expertise includes clinical judgement, patient preferences, and patient-clinician communication, all these skills are at the core of practicing EBM."⁴

This has been hard to do in clinical practice. Although this is a lofty goal, no one has actually demonstrated how to make this definition a reality.

Ralph Horwitz and Burton Singer, as well as W. Scott Richardson advocate resolving the situation by including clinical epidemiology and holistic care in each patient encounter.^{1,2} Richardson shares experiences from making inpatient rounds with Drs. George Engel and David Sackett about how both were able to integrate person-centered and evidence-based clinical care. Horwitz labels this as "Medicine-based evidence." Both acknowledge the social environment and individualized nature of caring for patients and apply clinical research in that context. Although truly experienced practitioners report achieving this goal, there is no permanent record explaining how others might learn these skills. Our ongoing efforts at *Clinical Research in Practice: The Journal of Team Hippocrates* attempt to do just that—demonstrate how the goal of EBM is implemented in clinical practice.

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In a 2017 interview with Henry Barry, W. Scott Richardson addressed this generational paradigm. Richardson reminisced about when database searches required a medical librarian and took days if not weeks to complete. Journal articles were retrieved by going to the stacks in the library and photocopying bound copies of print journals. Comparing these experiences to current point-of-care evidence keeps us mindful that learners today participate in an environment where this can be done in minutes. Our practice environment continues to evolve; so must our physicians. The excellent clinicians of tomorrow cannot be satisfied just finding evidence, they require the skill to read it with a critical eye and incorporate it into the care of individuals, acknowledging patients' values and preferences. Our clinical teaching and editorial focus is to ensure they learn to do it well.

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