

Commentary:
“Evidence-based Medicine and Ethics”

Mary Catherine Beach, MD, MPH

Ruth Faden, MPH, PhD

Phoebe R. Berman Bioethics Institute
Johns Hopkins University

Our good friend tells a story about visiting her family, sometime during her residency in internal medicine, after she first learned about evidence-based medicine. She was reading the second edition of *Clinical Epidemiology*,¹ and her parents, neither of whom were in the medical profession, asked her what she was so swept up in. She began to explain, “Well, it’s a new movement, called evidence-based medicine, where doctors synthesize the best available data from medical studies and use that as evidence to help make clinical decisions.” Her father and mother just stared at her. Finally, her father asked, “What were they doing before evidence-based medicine?”

Her father’s response illustrates that, at its core, evidence-based medicine is so obviously right that it would be hard to believe anybody would argue for anything else. To the extent that evidence-based medicine is able to reduce unnecessary or harmful treatments or diagnostic procedures, this seems to be both a clinical and a moral victory. So, why then has it been the subject of so much scrutiny by physicians and medical ethicists? Evidence-based medicine has perhaps been most widely criticized for its threat to individual patient autonomy, through its potential to limit the freedom of patients to choose what might best suit their individual needs and personal values. There are also concerns about the impact of evidence-based medicine on justice in health care, insofar as evidence-based medicine might negatively effect the health of minority and disadvantaged communities. It is worth noting that these concerns speak to potential problems with the *application* of evidence rather than the *nature* of evidence-based medicine.

Evidence-based medicine does have the potential to threaten patient choice when evidence is turned into clinical practice guidelines – guidelines, not inherently bad, but with the potential to be either adopted so blindly by clinicians that they are unable to consider other options or to be adopted as inflexible policy by a health care organization. Either way, patients who might have been “outliers” in the research on which the guidelines are based may be denied the opportunity to even consider alternatives that better suit their particular medical or social situation. For example, when utilities for different outcomes are calculated to inform cost-effectiveness analyses, those utilities are based upon the average preference for Outcome A versus Outcome B. If most people prefer Outcome A, and you’re one of a minority of persons who prefer Outcome B, then the cost-effectiveness of the intervention would not reflect your values and preferences. At its extreme, patients could face only one choice, the approved course of treatment or no treatment at all.

While these scenarios are within the realm of possibility, they are neither the intent nor the inevitable outcome of evidence-based clinical practice. From its inception, the proponents of evidence-based medicine have intended patient preference to be part of the equation when ‘applying’ evidence from populations to individuals. It is the challenge, then, of practitioners of evidence-based medicine to avoid reflexive adoption of practice guidelines by clinicians and health care organizations. *Clinical Evidence* is to be praised for presenting evidence in such a balanced manner, and for its potential to improve the quality of care delivered to patients.

There are also some theoretical reasons why evidence-based medicine might enhance patient autonomy. Evidence-based medicine aims to provide the sort of information that patients need to know to make informed decisions about their health care. For example, when deciding whether or not to undergo a particular treatment, it would be helpful to know that an evidence-based review found there to be no benefit overall. In addition, evidence-based medicine aims to present information about medical outcomes in a way that is least subject to bias. For example, the use of absolute risk reductions instead of relative risk reductions may improve the ability of patients to understand the impact of different treatment options. Similarly, the tools of evidence-based medicine itself have been used to improve understanding of how best to inform patients.² Given the complexity of data to be presented to patients, there is a dire need for well-designed studies to inform that process of enhancing patient understanding.

There have been fewer concerns voiced about the impact of evidence-based medicine on vulnerable or socially disadvantaged groups,³ but they are important concerns to explore nonetheless. First, the creation of data requires that there be adequate representation of all groups in clinical trials, yet it is well-known that racial/ethnic minorities and women are often underrepresented. Furthermore, even if there was adequate representation in medical studies, the effects for the majority may overshadow the effects for the minority. For example, the positive predictive value of a given diagnostic test is based upon the prevalence of a disease in the population tested. If the prevalence of disease is higher among persons from an ethnic minority group or among persons from lower socio-economic strata, then the positive predictive value of a test would be underestimated for those persons by relying on the data from overall population estimates. Despite these concerns, if advocates of evidence-based medicine chose to embrace this mission, the tools of clinical epidemiology could be garnered to improve our understanding of how to deliver the best health care to underrepresented or disadvantaged groups in society.

In exploring the potential threats of evidence-based medicine to patient autonomy and to social justice, it seems that evidence-based medicine may actually be the answer to the problems inherent in its use. If those who create and use the clinical evidence are committed to strengthening the evidence base for how best to involve patients in decisions and for improving understanding of impact of health care therapies on disadvantaged groups, then evidence-based medicine has the potential to enhance patient autonomy and social justice.

References

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