

Op-Ed

Does Evidence-Based Medicine Offer Fair Benefits for All?

Evidence-based medicine has the potential to offer objectivity and standardized practices into an often subjective decision-making process.

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Evidence-based medicine (EBM) has the potential to introduce rational order into the sometimes subjective processes of deciding which treatments to fund (at a policy level) and which treatments to use (at a clinical level). Both of these decisions raise questions of justice: how do we allocate health care budgets fairly, and how do we make sure individual patients receive an equitable share of the benefits? Part of the appeal of EBM lies in its perceived fairness. EBM seems to offer the promise of consistent and impartial evidence about the benefits and harms of treatments due to the transparent use of high quality primary research in systematic reviews and meta-analyses. These results are then applied in equally transparent processes to make clinical decisions. Justice in providing health care is critically important, since equity in this area may go some way toward redressing health inequalities, which are inescapably linked to socioeconomic and other disadvantages both within and between countries. This article first reviews the justice claims of EBM and then suggests challenges, both to the evidence base itself and the mechanisms used to generate and apply it.

Justice

We can think about justice in at least 2 ways: distributive and procedural. *Distributive* justice is concerned with the allocation of material goods, with the focus on outcome patterns. Several criteria can be used to determine who is entitled to the goods in question, such as need, capacity to benefit, merit, or rights [1]. The use of EBM in guiding both resource allocation and clinical decisions has at least something to do with the fair distribution of services and treatments. The criterion that EBM relies most upon is capacity to benefit, measured by clinical markers of effectiveness. A policy that mandates an EBM-proven treatment can ensure that all patients have equal access to the treatment irrespective of, for example, their geographical location or specific health care provider. A clinical guideline advising use of the same treatment may ensure that it is offered to all patients irrespective of any personal preferences or biases of their treating physician. Taken together, the end result should be the fair distribution of the treatment to all those with equal capacity to benefit.

Procedural justice concerns making and implementing decisions using fair processes. The fairness of processes is usually judged against criteria including consistency, impartiality, transparency, and the representation of all parties affected by the processes in question [2]. The processes of EBM make some claims to fairness in that there are predetermined and agreed-upon rules for including or excluding research in reviews, for judging whether or not a treatment is effective, and for membership in guidelines groups.

EBM and Justice

These prima facie claims about EBM and justice can be challenged in a number of ways. With regard to the distribution of effective treatments, national policies in some countries have ensured that EBM-proven treatments are

guaranteed nationwide, but these same policies have not been supported with matching funding. This means that fair access to new treatments comes at a cost to existing interventions, leading to a new set of inequities as established programs are cut back to facilitate the introduction of EBM-proven treatments [3]. EBM relies upon the criterion of capacity to benefit, but this takes no account of the seriousness of the ailment for which there is evidence of an effective cure. Patients who have high levels of need and illnesses for which there is little or no evidence about effective treatments may lose out to those with better-researched diseases. Distribution according to capacity to benefit takes no account of existing patterns of ill health or of medical need, making it a suboptimal way of developing coherent policy to address health inequities at a population level.

As far as eliminating discrimination at the level of individual patients, to date the record is mixed. One study has, for example, shown that EBM guidelines have improved access to renal dialysis for African Americans [4], but in other areas of medicine, biases remain. Women, the elderly, and African Americans remain undertreated for cardiovascular disease, despite the large evidence base in this discipline [5,6].

These points about distributive justice are hard to prove; to do so requires complex empirical data, much of which is currently unavailable. We do, however, have enough information to enable us to be on our guard against these potential injustices. We can monitor the effects of policies to introduce new EBM-justified interventions, keep track of the changes in patterns of expenditure, and take note of how these changes affect services to disadvantaged groups. We can examine the match between major causes of morbidity and mortality, and the development of effective treatments. We can track equity in the application of EBM-justified interventions through audits that document the recipients of new interventions, and thereby ensure that the benefits are not limited to the more privileged subgroups of the population.

The concerns relating to procedural justice are more complex. The scientific ideals of consistency and impartiality presuppose a certain sameness between all research participants and potential patients, so that in theory anyone with the relevant condition is eligible to participate in a clinical trial or act as a consumer adviser on a guidelines group or to a research team. These assumptions do not sit easily with justice requirements to treat those in like circumstances equally and those in unlike circumstances differently. Impartial procedures allow equal formal opportunities but do not lead to impartial outcomes when there are significant differences of power and resources amongst the populations in question [7]. Institutions, such as hospitals and universities, do not overtly or intentionally discriminate against disadvantaged or minority groups in their research, but the research they perform effectively excludes these groups by its very processes and requirements [8].

There is ongoing evidence demonstrating the homogeneity of research populations despite the need for research evidence that applies to the poor, the elderly, those with multiple pathologies, and other underserved groups [9]. In order to address these concerns, we need research processes that overtly acknowledge the current inequities in research participation. A first step would be to require researchers to redesign research, removing the current barriers to participation by those who are disadvantaged. A second step would be to increase the number of opportunities for participation, either by increasing heterogeneity in general research populations or by specifically funding research with disadvantaged subgroups.

Participation in research is, however, only one area in which disadvantaged groups are excluded from the processes of EBM. Their voices are also absent in setting the research agenda and in serving on the groups that work to translate evidence into clinical guidelines. This latter process requires exercise of values and judgment as well as evidence [10]. The group has to make decisions, for example, about what counts as a rare complication or how many treatment choices patients should be offered. Exclusion from this part of the process can result in a set of evidence-based treatment guidelines that takes no account of disadvantaged patients' capacity to afford or cooperate with treatment regimes.

Equity in Health Care

So far, these claims about EBM and justice are relatively inward-looking, inasmuch as they have been concerned only with the fairness of EBM itself rather than with the wider subject of equity in health care. Given, however, the currently influential role of EBM in contemporary health care, we may legitimately question its effect upon the bigger

picture. One crucial factor relates to the funding of research. Research evidence is necessary for the processes of EBM, and, increasingly, EBM review is necessary for funding of new interventions. This leads to a cycle in which the more research that exists about a particular health problem, the more likely it is that further research will be funded to investigate it.

If we used an open, transparent, and consultative method of setting priorities, we would not necessarily get the current distribution of research funding. This is due in part to the sources of health research funding. At present, the biggest single source of research funds—the pharmaceutical industry—creates a demand for research that is likely to lead to profitable products rather than to a minimization of the inequitable effects of ill health. Our challenge is to devise processes that include the interests of all citizens in determining and implementing research agendas [11].

EBM is a tool for improving health care; how we use this tool is up to us. EBM can provide powerful reasons for governments and health care providers to supply effective treatments, but unless we address the ways that disadvantaged people are excluded from the processes and benefits of EBM, it is just one more factor contributing to entrenched inequalities in health and health care.

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