

BOOK REVIEW

Ethics and evidence based medicine: fallibility and responsibility in clinical science

Edited by K W Goodman. Cambridge University Press, 2002, £23.99, pp 180. ISBN 0521796539

Uncertainty is the name of the game in philosopher Kenneth W Goodman's attempt to apply ethics to evidence based medicine (EBM). Indeed, the book is as much about epistemology, or the study of how we learn and know about the world, as it is about ethics. Goodman's desire is to understand what constitutes proof, or evidence, that a particular treatment is better than others. One of the ethical connections is that a failure to use such treatments is blame-worthy.

EBM is a concept that is getting a great deal of attention these days. At least two factors drive this attention. The rise of quality as a concern in health care tends to underscore the importance of evidence. Part of quality health care means that the treatments most likely to work are used on the people

most likely to benefit from them. These are the treatments that have been proven to work using the evidence gleaned from such hallmarks of EBM as large scale, randomised controlled clinical trials. Rising health care costs also contribute to the interest in EBM. Higher health care costs create an interest in paying for those treatments that are supported by EBM and not paying for those that are of unproven value.

The growing interest in EBM warrants a close look at what, exactly, evidence is. EBM might be construed as meaning that only those treatments proven to work according to a strict interpretation of the scientific method can be said to be of known value. Yet there are several practical problems with such a view. Large scale scientific studies are expensive, meaning that not everything can be studied. Additionally, smaller scale studies, as well as studies that fail to show positive results, have a harder time getting published. Meta-analysis, which involves combining data from different studies and different sources (such as randomised clinical trials and observational studies), is an attempt to overcome such problems. Combining the results of smaller studies allows researchers to test assumptions and search for correlations. Levels of evidence are another means of tackling the lack of rigorously attained data. Those assessing new or established treat-

ments using this approach can take into consideration such factors as expert opinion and evidence from non-randomised studies so long as these are given a lower weight than well designed randomised controlled trials.

Goodman, who directs the University of Miami's bioethics programme, rightly points out that meta-analysis and levels of evidence hardly remove uncertainty with respect to whether a particular treatment works. Indeed, we are left with the fact that medicine, like science itself, does not progress in a straight line fashion. Hypotheses are advanced, accepted, and then, ultimately, rejected in the light of some new discoveries. Far from taking a negative view of such a reality, Goodman argues that we should accept this and "soldier on" in the search for medical truth. Failure to do so would show a lack of both scientific and ethical resolve.

A great deal of ethics is happening at the bedside of any patient. One aspect of this is the treatments that should and should not be administered to the patient. Those that are known to be harmful should be avoided, whereas those that are known to be helpful should be prescribed. It is the knowing part that is the difficulty.

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