Saul Miller

Myth-based medicine

Evidence was meant to deliver us from foolishness. The promoters of evidence-based medicine (EBM) assert, 'Good doctors use both individual clinical expertise and the best available evidence, and that neither alone is enough.'[1] This is to say they think good doctors need only expertise besides evidence. What though is this thing we call expertise?

Surprisingly, an agreed definition of expertise in this context does not exist. One attempt to do so states, 'Clinical expertise must encompass and balance the patient's clinical state and circumstances, relevant research evidence, and the patient's preferences and actions if a successful and satisfying result is to occur.'[2]

By this definition, a good doctor needs three things: an ability to judge the patient's clinical state; an understanding of their preferences; and evidence. It is the synthesis of these three into judgements about what to do that it calls clinical expertise.

But now there is a new problem. What is this ability to judge the patient's clinical state? It is taken as a given that we all agree on what this is, presumably meaning we are to think of it as an objective observation, which surely is not true. Our judgements may be based on some objective observations but that in no way ensures they are themselves objective.

Psychological research confirms just how subjective and prone to error many of our decisions actually are.[3] Worse still, many of the mistakes we are liable to make, we may not even be conscious of making because we make them intuitively.

A prominent claim in the psychology of decision making is of our susceptibility to the narrative fallacy:[4] the tendency to make sense of the world in terms of stories; the construction of these stories being given such prominence in our thinking and understanding that we accord value to facts that support them and suppress those that do not.

The reality of current clinical practice is that it involves a large amount of pattern recognition, with time pressures meaning that frequent use of intuitive judgements is the only way to keep up. Professional development is largely about deciding which medical narratives (patterns) to adopt, not about personal analysis of recent research. Indeed, medical journals promote the adoption of such narratives, using initiatives like the *BJGP*'s 'How this fits in' box that accompanies their published research online.

A recent article suggests that the narrative about the role of serotonin in depression, and of the role of medicines that increase it, has fuelled massive sales and prescribing behaviour despite an absence of supporting evidence.[5] This seems to be a possible example of the narrative fallacy and yet it is unlikely that prescriptions for these medicines will be significantly affected by such a claim, because to alter our behaviour to accommodate it would require an alternative narrative. Of course, it would also mean accepting a dent to our self-concept as rational, scientific decision makers, something we are not prone to doing either.[6]

EBM has, by its own definitions, failed to lead us to true objectivity in our medical judgements, even where there is valid evidence available to guide us. However, that focus on evidence, itself part of a story about how scientific and modern we are, makes us complacent about the biases and errors in our subjective decision making.

It creates a collective blind spot too. Because most practitioners are not assessing the evidence itself, but rather whether to accept or reject a particular narrative founded on that evidence, it makes us susceptible to being manipulated. If we might have been misled about serotonin, what else might we have been misled about?

To ignore this question would be foolish indeed, given the evidence.

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REFERENCES

1. Sackett DL, Rosenberg WM, Gray JA, *et al.* Evidence based medicine: what it is and what it isn't. *BMJ* 1996; **312(7023):** 71–72.
2. Haynes RB, Devereaux PJ, Gordon HJ, *et al.* Clinical expertise in the era of evidence-based medicine and patient choice. *Evid Based Med* 2002; **7:** 36–38 doi:10.1136/ebm.7.2.36
3. Kahneman D. *Thinking, fast and slow.* London: Penguin, 2012.
4. Taleb NN. *The black swan: the impact of the highly improbable.* London: Penguin, 2008.
5. Healy D. Serotonin and depression. *BMJ* 2015; **350:** h1771.
6. Meehl PE. Causes and effects of my disturbing little book. *J Pers Assess* 1986; **50(3):** 370–375.