Response to Dr Kottow

Alternative medicine: methinks the doctor protests too much and incidentally befuddles the debate

Patrick C Pietroni St Mary's Hospital Medical School, London

Author's abstract

Dr Kottow in his paper Classical medicine v alternative medical practices (1) places the alternative/orthodox medicine debate within an historical context of anti-quackery literature. My paper explores the nature of science as it is applied to clinical practice and challenges the narrow view of the diagnostic process as outlined by Dr Kottow. Research methodologies more appropriate to 'whole person' medicine are suggested as having more ethical value than those based on the clinical trial.

Alternative medicine has had a good press in the last ten years, so it is not surprising to begin reading critiques on this topic from the medical community. Dr Kottow, like several of the previous contestants in this centuries-old battle chooses to define the terms 'scientific medicine' and 'alternative medicine' himself, and thus falls into the elementary trap of many who venture into this field. He equates alternative medicine with holism, confuses concern with patients' emotional well-being with therapies that have 'clear metaphysical undertones' and implies that 'truth' is something out there that can be objectively measured by the application of the rational technical science which he claims is the basis of modern medicine. He thus has written an out-of-date critique using out-of-date notions of science, which is a pity because he makes some valid and perceptive points.

It is almost impossible to have a reasoned debate on the subject of alternative medicine unless a serious attempt to define terms is made at the outset. The term alternative medicine is used as a 'catch-all' definition for 'anything that is not taught at a Western-based undergraduate medical school'. It is as useless a term as the word 'foreign'. An Englishman setting out to comment on 'foreignness' would be as accurate in his descriptions of foreigners as Dr Kottow is of alternative medicine. His commentary, like Dr Kottow's, would end up telling us more about the prejudices of being English than forming the basis for an informed discussion. Dr Kottow rightly asserts that 'traditional or classical medicine has always co-existed

with alternative therapies'. However, he does not advance the debate much further than an early seventeenth century anti-quack author who wrote:

'But our Empirics and Imposters, as they are too ignorant either to teach or to practice Physic ... and too insolent, and too arrogant to learn of the Masters of that Faculty, or to be reduced into order: so are they most dangerous and pernicious unto the Weale public These Crocodiles, disguised with the vizard of feigned knowledge and masking under the specious titles of Physicians and Doctors, not attained in Schools, but imposed by the common people, do with their Absolonical Salutations steal away the affections of the inconstant multitude, from the Learned Professors of that Faculty, with their Ioablike Imbracings, stab to the heart their poor and silly patients, ere they be aware of once suspect such uncouth Treachery' (2).

To take the arguments Dr Kottow makes in turn:

Scientific aspects: I am not sure how many doctors would agree with his one-sided definition of medicine – that it is a rational science based on the laws of causality and the strategies of observation and experimentation. The practice of medicine is indeed all of those but fortunately it is also much more. The need to be seen as 'scientific' is so great amongst doctors that it is difficult to prise them away, as is evidenced by Dr Kottow's article, from an outmoded view of science. Confusion abounds between science as a method of enquiry and science as a body of knowledge. This narrow and inaccurate conception of science within medicine has led to a promulgation of measurement and measuring instrumentation, the consequences of which are as yet not fully recognised. Dr Kottow identifies alternative medicine as pursuing a paranormal, telepathic and telekinetic understanding of the human universe, which may indeed be true of some alternative therapies but by no means all. He seems to be unaware that different theories of causality exist in the philosophy of scientific thought and are much debated by 'pure' scientists all over the world. Modern science is no longer wedded to the inductive model any more than it accepts the Newtonian theory

Key words

Alternative medicine; science; research; ethics.

of causality as the only explanation for events 'out there'. Joseph Needham's description of the nature of 'co-relative and co-ordinate relationships' has found much acceptance amongst modern systems-analysts.

'Things behave in particular ways, not necessarily because of prior actions or impulsions of other things but because their position in the ever moving cyclical universe was such that they were endowed with intrinsic natures which made their behaviour inevitable for them.

'The idea of correspondence has greater significance and replaces the idea of causality for things are *connected* and not caused' (3).

Dr Kottow allows his prejudices to emerge when he comments on the terms health, well-being and lifestyle. He says terms used in this way become ubiquitous, useful for ill-defined propositions and elusive to *serious* (my italics) analysis and criticism. By serious I assume he means they cannot be accurately measured. Schön, who has written most acutely on the problem of rigour or relevance in professional practice, writes of Kottow's position:

'Many practitioners, locked into a view of themselves as technical experts, find little in the world of practice to occasion reflection – for them uncertainty is a threat, its admission a sign of weakness. They have become proficient at techniques of selective inattention, the use of junk categories to dismiss anomalous data, procrustean treatment of troublesome situations all aimed at preserving the constancy of their knowing in action' (4).

Clinical aspects: If some doctors would find Dr Kottow's first section debatable, I believe that most experienced practitioners would view his second as somewhat tendentious, especially those doctors in primary health care.

A diagnostic model that bases itself on inductive reasoning – doctors beginning 'from scratch' to obtain all the data before deciding on the diagnosis, or, as Bacon said: 'We must put the patient on the rack to make him reveal his secrets', is indeed the preferred method taught at medical school. However, numerous studies indicate that experienced clinicians fortunately no longer operate that way and have adopted a 'hypothetico-deductive' mode of diagnostic formulation. Thus Crombie found that in over 300 consecutive consultations, a specific medical diagnosis was arrived at in only 150 and that treatment was commenced even though the problem presented would not fit any of the classical medical diagnoses (5). Elstein, in his own survey of the diagnostic process, found that 'expert clinicians' formulated a tentative hypothesis within the first few seconds of a consultation, used a form of 'pattern recognition' in obtaining information and relied on a series of highly discriminative questions to test their original

hypothesis (6). The problem with the diagnostic model described by Kottow is that it leads to a diagnostic bias towards illness, never better illustrated than by a study undertaken in New York. The study revealed that of 1,000 eleven-year-old children in New York, 61 per cent had had their tonsils removed. The remaining 39 per cent were examined by a new panel of doctors and 45 per cent of these were recommended to have a tonsillectomy. The rejected group were re-examined by another panel of doctors and a further 46 per cent were recommended to have surgery (7)!

Ethical issues: Dr Kottow acknowledges that both traditional and alternative medicine put a heavy reliance on the 'placebo effect' and describes the ethical problems regarding its use. I disagree with his view that the placebo effect 'may possibly be the most marginal activity of medicine' but accept that both traditional and alternative practitioners practise in good as well as bad faith. His ethical arguments focus on the three issues of allocation of resources, comparability of competing therapies and vulnerability to criticisms. The argument, as I understand it, goes something like this: 'Alternative therapies cannot be accepted as effective approaches because they have not been subjected to rigorous study, clinical trials etc. If alternative practitioners were willing to do so then we as doctors would have no difficulty in accepting them as valid, for we are an objective, rational, scientific-based group of professionals. Let them research their approaches like we do, *but* when they do put forward protocols and grant applications, it is unethical to grant them money and support because their methods are unscientific and unproven!'

The need to ascertain which of two treatments is superior is clearly an important ethical question. If the method used to obtain such knowledge is itself unethical, then the knowledge acquired will almost certainly be only partially valid and not be generalisable to patients as whole people. Put another way:

'If morality and methodology conflict it seems to us that the onus is upon us to develop methodologies that harmonise with our morality rather than compromise with morality on the probably false assumption that we are dealing with an immaculate methodology' (8).

For scientific medicine, the accepted method since Bradford-Hill has been the randomised controlled clinical trial. Yet the ethics surrounding this approved method are themselves dubious and have been much debated.

It could be argued that grant-giving bodies that fund research using dubious methodologies are themselves colluding in unethical behaviour. It has been suggested that that pursuit of an analytic and scientific mode of thinking in problem-solving makes it much more difficult to tolerate the confusion and messiness of complex moral, legal and ethical problems. Indeed it

may result in the doctor being peculiarly unqualified in arriving at such decisions.

'Once the complexity of these judgements is appreciated and once their evaluative character is understood, it is impossible to hold that the doctor is in a better position to make them than the patient or his family. The failure to ask what sort of harm/benefit judgements may properly be made by the doctor in his capacity as a doctor is a fundamental feature of medical paternalism' (9).

Therapists who claim to treat the 'whole person' will require methodologies that allow for comparability of results which at the same time respect the uniqueness of every human being. The nature of scientific inquiry and its limitations has been a point of debate and exploration amongst 'pure' scientists and 'social' scientists for several decades. The medical profession, which is so well-placed between both extremes has, for the most part, not entered the debate, and has attempted to resolve the conflict by identifying with the 'pure' form of analytic science, which strives to reject the indeterminate, relies on Aristotelian logic and considers the nature of scientific knowledge to be impersonal, value-free, precise and reliable. The analytic scientist's approach to 'knowledge' can be contrasted to that held by the Particular Humanist:

'The Particular Humanist naturally treats every human being as though he or she were unique, not to be compared with anyone or anything else. Thus the Particular Humanist is not interested in formulating general theories of human behaviour at all – not so much because this is impossible (although the Particular Humanist argues it is impossible) but because it is not desirable. To study people in general, even from a humanistic perspective, is for the Particular Humanist inevitably to lose sight of the unique humanity of an individual – to fail to capture precisely *this* person. The Particular Humanists take to heart Kant's dictum to treat everyone as a unique means rather than an abstract theoretical end' (8).

The Particular Humanist's view of scientific knowledge is that it is personal, value-constituted, partisan, non-rational and political.

The debate regarding the ethical nature of research and the enquiry method is far more complex and far less clear than suggested by Dr Kottow. Unfortunately as long as critiques of alternative medicine remain at the level of Dr Kottow's article, then the long-overdue discussion will be delayed and patients will continue to seek alternative treatments of doubtful value. These therapies should be properly studied by doctors and scientists willing to enter into an honest debate where the high ground of 'rigour' is eschewed for the messy swamp of relevance.

Dr Patrick C Pietroni, FRCGP, MRCP, DCH, is Senior Lecturer in General Practice at St Mary's Hospital Medical School, London.

References

- (1) Kottow M H. Classical medicine v alternative medical practices. *Journal of medical ethics* 1992; 18: 18–22.
- (2) Beier L McC. *Sufferers and healers - the experience of illness in seventeenth-century England*. London: Routledge and Kegan Paul Ltd, 1987: 38.
- (3) Needham J. *The history of scientific thoughts*. Cambridge: Cambridge University Press, 1956.
- (4) Schön D A. *The crisis of professional knowledge and the pursuit of an epistemology of practice*. Massachusetts: Harvard Business School, Massachusetts Institute of Technology, 1984.
- (5) Crombie D L. Diagnostic process. *Journal of the Royal College of General Practitioners* 1963; 6: 579–589.
- (6) Elstein A *et al*. *An analysis of clinical reasoning*. Harvard: Harvard Press, 1978.
- (7) *Physical defects - the pathway to correction*. New York: American Child Health Association, 1934: ch 8: 80–96.
- (8) Metroff I, Kilman R. *Methodological approaches to social science*. Chicago: Josey Bass, 1978.
- (9) Gillon R. *Philosophical medical ethics*. Chichester: Wiley, 1986: 70.