Complementary medicine—the case for dialogue

ABSTRACT—Complementary medicine (CM) is popular with patients but physicians do not feel at ease with this situation and some fear that the patient might be the loser. Their fear is based on the perception that some CM practitioners have dubious qualifications and competence and that too little is known about the efficacy and safety of many complementary therapies. It follows that, in the interest of the patient and all other parties involved, we urgently need more and better research to fill the void. Integration of complementary medicine into mainstream care requires a minimum of essential evidence. As in all areas of medicine, there can be no short cut to rigorous research.

A recent survey conducted by *Which?* magazine in the UK suggested that in the previous year about one-quarter of the British population had used some form of complementary medicine (CM) [1]. This level of popularity is also confirmed by more rigorous studies on random samples of the population of the UK [2] and elsewhere [3,4]. About 80% of those using CM are satisfied with it [1,5,6] but only 58% of British patients feel the same way about the treatment given by their GPs [7]. Such acceptance of CM is associated with dramatic changes in attitude: 65% of British hospital doctors believe that CM has a place in mainstream medicine [8], 93% of GPs have suggested a referral for CM [9], and 67% of local health authorities in the UK are purchasing at least one form of CM [10].

While elsewhere in Europe about 95% of GPs are using some form of CM [11], in the UK only 20% do so [9]. The majority of CM in Britain and the US is supplied by non-medically trained practitioners. In the UK their number is estimated at 40,000 [12], and only about half of them have benefited from any formal training [13]. Many physicians therefore feel that the patient might be the loser.

Complementary practitioners

Practitioners of CM who *are* trained have usually gone through validated courses of varying lengths and rigour. A recent Labour Party document suggests that NHS patients should be treated only by a therapist with three years training and one year of clinical experience [14]. An initiative to harmonise the regulations about CM within the European Union proposes that only such therapists should practise who have had an education similar to that of medical practitioners [15]. At present, however, no compulsory standards are implemented in the UK. The situation contrasts with the US where the chiropractic profession, for instance, is licensed in all fifty states as primary care health care providers. American chiropractors are required to receive four years of medical education, and acupuncturists a minimum of two or three years of specialist education.

The UK situation is clearly unsatisfactory, and several initiatives aim at changing it. Osteopaths are leading the way towards statutory regulation [16]. The chiropractors and possibly other complementary professions are following. In parallel, the Occupational Standards Council for Health and Social Care has launched an initiative to boost and standardise the quality of complementary therapies in Britain [12]. Most experts see these activities as decisive steps towards securing quality in health care, yet sceptics point out that the regulated training of nonsense will still result in nonsense [17]. The call to demonstrate the efficacy and safety of CM is therefore loud and clear. Yet, 'among the majority of complementary therapy groups there has been a long-standing reluctance to grasp the research nettle' [18].

Efficacy

Does a valid corpus of knowledge exist against which the training and practice of complementary medicine can be judged? There are too many complementary therapies to discuss the evidence for or against efficacy in detail here. Therefore a summary of the data relating to the three most popular therapies (acupuncture, homoeopathy and spinal manipulation) may suffice.

A number of randomised controlled trials have been published in acupuncture, homoeopathy and spinal manipulation (ie osteopathy and chiropractic). Some of these are 'positive', ie lead to the rejection of the null hypothesis. These are usually cited by enthusiasts who want to give the impression that the evidence is fairly straightforward. The truth, however, is far from straightforward. As a rule of thumb, for every two to four positive studies on the above-mentioned therapies, one can find one negative one—by no means an unusual dilemma in clinical medicine, of course. The solution could be to perform meta-analyses or systematic reviews.

For all three therapies such publications exist: acupuncture for chronic pain [19], asthma [20], nausea [21] or smoking cessation [22], spinal manipulation for low back pain [23], and homoeopathy for the various conditions that it is used for [24]. The conclusions of these reviews uniformly stress the following points:

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- there are too few rigorous trials
- the existing data are too often flawed
- they are not sufficient to answer the question about efficacy.

Only for acupuncture as a treatment of nausea [21] and for spinal manipulation as a treatment for acute (not, however, chronic) low back pain [23] are the data sufficient and convincingly positive. The level of uncertainty is further increased by the fact that negative trials are often not published, a phenomenon that can easily produce a false positive picture in such overviews [24,25].

Of course, inconclusive evidence is not the same as negative evidence. The absence of evidence must not be (but unfortunately sometimes is) confused with the evidence of absence. This rule applies to efficacy as much as it does to safety.

Safety

CM is often promoted as natural, and natural is regularly equated with harmless. This cliché is at best misleading and at worst dangerous. The indisputable truth is that no treatment, complementary or mainstream, is ever entirely free of risk. Adverse events and complications have been reported for all three of the above-mentioned therapies [26–28]. Usually these are minor, but serious and even fatal complications have also been reported, particularly for acupuncture and spinal manipulation. Yet we are unable, at present, to define the size of the problem. We know virtually nothing about the incidence of such events. Systematic research in this area is therefore urgently called for.

Risk/benefit evaluation

With uncertain benefits in most areas of CM and adverse effects occurring at an unknown frequency, one is at a loss to do even a tentative risk/benefit evaluation. To compare absolute risks or absolute benefits of mainstream and complementary therapies is of limited use. Mainstream medicines may be associated with considerable risks, yet their risk/benefit ratio may be far superior to that of a low-risk complementary treatment. It follows that more and better research is needed to arrive at conclusive risk/benefit evaluations.

In the absence of hard evidence on specific outcomes and a meticulous assessment of potential risk, an analysis of CM's persuasive appeal might take an anthropological approach. One could ask, for example, how some of CM's unscientific beliefs (such as 'vital energy' or 'natural' treatment) themselves provide patients with a unique and possibly valuable form of assurance and expanded sense of personal meaning. It might also be that regardless of the scientific evidence, this aspect of therapeutic culture is an issue of health care where conventional medicine can learn from CM [29].

Competence

The wider issue of professional competence also needs to be addressed [30]. Full medical responsibility for a patient must be matched with full professional competence. Whenever this balance is disturbed, patients will be at risk [31]. Thus some feel that the ultimate responsibility for a patient should not be shifted away from the GP [32]. Even the majority of medical students (who are usually more 'progressive' and liberal than GPs in their views on CM) think that practitioners using CM should be medically qualified [33].

Perhaps not surprisingly, non-medically trained practitioners disagree. The arguments of both camps have changed little for at least a century [34,35]: doctors warn 'first do no harm', while complementary practitioners claim that orthodoxy merely wants to safeguard its income and prestige and is more dangerous than CM anyway. The loser, it is to be feared, might be the patient: he or she is made insecure by conflicting advice and may be in (considerable) danger of being harmed [36].

Is there a way forward?

From the above discussion it follows that we need to know much more about CM's efficacy and safety than we do today. Much of the present dilemma is the direct result of an indisputable lack of evidence. Quite simply, there is no short cut to rigorous clinical research. A 'Cochrane Field' in CM (Cochrane Collaboration—a worldwide network to systematically review and update medical therapies) is presently being formed with the remit to assemble and review the existing evidence. Both present authors are founding members of this group. Another organisation with the aim of enhancing standards is the London-based Research Council for Complementary Medicine.

Whenever research comes to a positive result, CM should be considered for integration into orthodox health care. In fact, both in the UK and the US, new clinical guidelines on the treatment for acute low back pain recommend the use of spinal manipulation [37,38]. Integrating CM in the unequivocal absence of data on fundamental issues, however, would be ill-advised and could turn out to be detrimental for the patient and, in the long run, even CM itself.

But stressing this rather obvious fact does not provide instant solutions—research takes time, the void is huge and patients are queuing up for treatment *now*. For the time being, it would seem reasonable to honour the wishes of patients and to make CM as safe as possible to use while preserving a good measure of healthy and constructive criticism [39]. Formal training of practitioners seems an essential precondition. Such training must not just be confined to teaching basic medical knowledge and the respective therapeutic techniques; it should also entail learning about

the limitations of whatever the therapists are doing.

The shortcomings of CM, like those of conventional medicine, need to be acknowledged in a professional manner by CM practitioners. Without responsibility to monitor and protect the public from potential CM iatrogenic damage and incompetence, 'in-house' professional errors, mistakes and inappropriate interventions automatically become societal issues [40].

This strategy seems to be in line with the plans of the British Government. In the recent parliamentary debate on CM there was a distinct 'call for clarity in training, professionalism and practice'. The Chief Whip's message was compelling: 'The Government appreciate that a great many people derive benefit from them [complementary therapies]. We uphold the principle that practitioners should enjoy the relative freedom to offer their services and the public's right to use them. But as popular interest grows, that must be matched by increased standards within the different professions' [18].

It may be a platitude that the best safeguard against incompetence is proper education and the only cure for lack of knowledge is research. Yet in CM these concepts have not yet been completely accepted or integrated into professional activities. The barriers between complementary practitioners and physicians need to be broken down. It would be arrogant of either side to assume that it has nothing to learn from the other. The more intense the dialogue becomes, the more we can feel assured that the patient will not be the loser.

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