

Introducing complementary medicine into the medical curriculum

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J R Soc Med 1997;90:19-22

SUMMARY

We surveyed the deans of British medical schools to determine the provision of complementary medicine in the undergraduate curriculum. We also sampled medical students at one British medical school to determine their knowledge of, and views on instruction in, complementary medicine. There is little education in complementary medicine at British medical schools, but it is an area of active curriculum development. Students' levels of knowledge vary widely between different therapies. Most medical students would like to learn about acupuncture, hypnosis, homoeopathy and osteopathy. We conclude that complementary medicine should be included in the medical undergraduate curriculum. This could be done without a great increase in teaching of facts, and could serve as a vehicle to introduce broader issues, as recommended by the General Medical Council.

INTRODUCTION

Public demand for, and professional interest in, complementary medicine is increasing^{1,2}. Of the UK population 8.5% consult a practitioner of acupuncture, chiropractic, homoeopathy, herbal medicine, hypnotherapy or osteopathy in a year and lifetime use is nearly 17%³. Complementary medicine is used more frequently by patients suffering from chronic disease: for instance, 16% of cancer patients in London report using such therapies⁴, 30% of acquired immunodeficiency syndrome patients are estimated to be currently undergoing complementary therapy⁵, while 40% of rheumatology outpatients had attended alternative practitioners at some stage in their illness⁶.

National Health Service (NHS) expenditure on complementary medicine is substantial, although no reliable figures for total expenditure are available. The National Association of Health Authorities and Trusts estimated that NHS purchasers spent £1 million on complementary medicine in 1993⁷. This is certainly a gross underestimate, since the purchaser income for the same period of the largest NHS provider of complementary medicine, the Royal London Homoeopathic Hospital NHS Trust, alone was £3 million.

95% of general practitioners (GPs) said that patients had discussed alternative medicine with them in the preceding year. Surveys consistently show positive attitudes to

complementary medicine among GPs^{8,9} and young doctors¹⁰. Over 80% of young doctors and over 40% of GPs surveyed were interested in training in complementary medicine. The young doctors had a strong preference for referring their patients to another doctor rather than a non-medically qualified practitioner of complementary medicine.

A recent study of medical students showed that 69% believed that alternative practitioners have effective treatments, but 76% believed that there are many quacks in alternative medicine. The students strongly agreed with other statements including the contentions that medical students know very little about complementary medicine, that a surprising number of patients claim it is effective, and that practitioners should be medically qualified¹¹. Surveys of medical students elsewhere in Europe have revealed a similar interest in complementary medicine^{12,13}.

In this light, the British Medical Association's (BMA) recommendation that 'consideration should be given to the inclusion of a familiarization course on non-conventional therapies within the medical undergraduate curriculum'¹ seems justified. We have undertaken a study to determine the current state of play in UK medical schools and medical students' knowledge and views on complementary medicine, with the intention of providing an evidence base for decision-making on development of undergraduate medical education in complementary medicine.

METHODS

We conducted two surveys to determine:

- (i) Current and planned future provision of training in complementary medicine by British medical schools

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- (ii) Medical students' knowledge of complementary medicine therapies and their interest in learning more

Medical school deans' questionnaire

Questionnaires, and a postage paid return envelope, were sent to all 26 medical school deans in the UK. A second questionnaire was sent to non responders. This questionnaire was designed to determine whether there was any undergraduate teaching of basic principles of, or training in the practice of, complementary medicine in the undergraduate curriculum. The deans were also asked whether they were considering providing any teaching or training in complementary medicine in the future. The survey focused on the major forms of complementary medicine: acupuncture, homoeopathy, hypnosis and osteopathy.

Medical student questionnaire

Questionnaires were distributed to medical students at St George's Hospital Medical School, London, in years 1 to 4, at group lectures. The questionnaire investigated the following areas in respect of complementary medicine: knowledge, interest in the teaching of the principles of complementary medicine, interest in training in the practice of complementary medicine, stage of medical curriculum at which this material should be provided, and views on future referral to complementary practitioners. The survey covered 15 complementary therapies ranging from acupuncture to yoga.

RESULTS

Teaching of complementary medicine in UK medical schools

Twenty-four (92%) medical school deans responded to the questionnaire. Of the 24 medical schools, 3 were offering teaching, none were providing practical training, and 4 were considering incorporating complementary medicine in the undergraduate core curriculum.

Most medical schools provide no formal education in complementary medicine. Only two medical schools currently provide teaching as part of the core curriculum at the clinical stage, with a third starting in September 1996. Acupuncture is included in the curricula of all three of these schools, and hypnosis, homoeopathy, manipulation and therapeutic massage in two. Four medical schools indicated that the provision of teaching and/or training in complementary medicine in the new core curriculum was being considered.

Two respondents indicated that, although complementary medicine is not taught as a discrete entity, some aspects are covered under particular topics, for example,

acupuncture in the teaching of palliative medicine. One respondent indicated that 'opportunistic discussion' is available in the clinical setting and another that electives in complementary medicine could be arranged.

Students' views on education in principles and practice of complementary medicine

Two hundred questionnaires were distributed and 161 (81%) were returned. Of the respondents, 71 (44%) were men and 82 (51%) women; eight did not state their gender. Age range was 18–30 years (mean 21). Eighteen (12%) were in year 1, 57 (38%) were in year 2, 30 (20%) were in year 3, and 46 (30%) were in year 4; 10 did not state their year.

Self-reported knowledge of complementary medicine therapies varied widely. All members of our sample had heard of acupuncture and hypnosis, with 88% and 85%, respectively, professing at least some knowledge of them. Homoeopathy and yoga attracted the greatest enthusiasm, with 13% and 12%, respectively, of students claiming 'to know a lot' about them. At the other extreme, 93% had 'never heard of' psionic medicine (see Table 1).

We divided our questions on instruction into basic principles and practical training. Acupuncture, followed by hypnosis, is the therapy in which the greatest number of medical students expressed an interest in learning the basic principles. A majority of respondents would also like to learn the principles of osteopathy and homoeopathy. Student interest in practical training was lower, but a majority were interested in such training for acupuncture and hypnosis (see Figure 1). Students felt that instruction should be included as part of specialist or GP vocational training, or in the clinical undergraduate course (see Figure 2).

DISCUSSION

Today's medical students will, after they qualify, encounter many patients who are using complementary medicine, and most will be asked for advice concerning complementary medicine by their patients. Patients' expectations of their GP's knowledge about complementary medicine techniques are not being met¹⁴. Our results and those of other workers indicate that medical students would like more education on complementary medicine.

One-third of USA medical schools now offer instruction in complementary and alternative medicine in their curricula. At one-third of these schools the courses are obligatory, and this is an area of rapid curriculum development¹⁵. German medical schools are required to offer options in *Naturheilkunde* ('nature cure'), although the definition of *Naturheilkunde* is rather broader than complementary medicine, including forms of physical therapy which are not usually considered 'complementary' in the UK. The best developed such curriculum is the Münchener

Table 1 Medical students' knowledge of complementary medicine therapies

	No. of respondents	Never heard of	Heard of only	Know something of	Know a lot
Acupuncture	161	0	20 (12%)	127 (79%)	14 (9%)
Alexander technique	158	112 (71%)	28 (18%)	18 (11%)	0
Aromatherapy	161	4 (2.5%)	45 (28%)	100 (62%)	12 (7.5%)
Chiropractic	160	13 (8%)	59 (37%)	80 (50%)	8 (5%)
Clinical ecology	161	144 (89%)	15 (9%)	2 (1%)	0
Herbalism	160	9 (6%)	88 (55%)	59 (37%)	4 (2%)
Homoeopathy	160	6 (4%)	40 (25%)	93 (58%)	21 (13%)
Hypnosis	159	0	24 (15%)	121 (76%)	14 (9%)
Iridology	159	121 (76%)	32 (20%)	5 (3%)	1 (1%)
Therapeutic massage	160	6 (4%)	66 (41%)	75 (47%)	13 (8%)
Osteopathy	160	7 (4.5%)	66 (41%)	79 (49.5%)	8 (5%)
Psionic medicine	160	148 (93%)	12 (7.5%)	0	0
Reflexology	160	16 (10%)	80 (50%)	56 (35%)	8 (5%)
Spiritual healing	160	4 (2%)	94 (59%)	54 (34%)	8 (5%)
Yoga	160	1 (1%)	41 (25%)	99 (62%)	19 (12%)

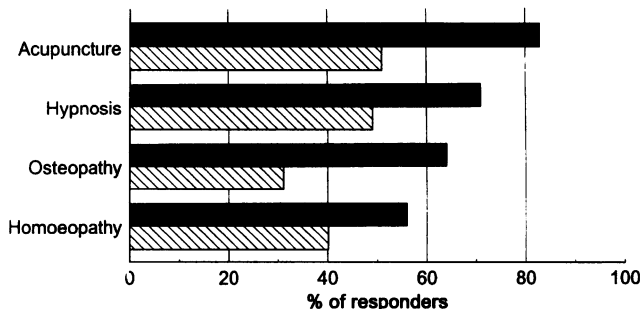


Figure 1 Medical students' interest in instruction in principles, and practical training in complementary medicine. ■=Principles; ▨=practical training

model, an optional course for undergraduate medical students at the Ludwig-Maximilian University, Munich. The syllabus includes lectures on the general principles of natural medicine and modules on various topics including acupuncture, homoeopathy and phytotherapy. The option has proved popular and is taken by about 35% of students¹⁶.

The General Medical Council's recommendations on the future of medical training call for a reduction in the burden of factual information, accompanied by an increase in learning through curiosity and exploration, social aspects of medicine and adaptation to changing patterns of health care¹⁷. A course module in complementary medicine would not add greatly to the burden of factual knowledge, but could provide a suitable vehicle for exploration of the broader context in which medicine is practised, a topic that is poorly covered in current curricula. Complementary medicine raises social and epistemological aspects of medicine which are poorly covered in current curricula.

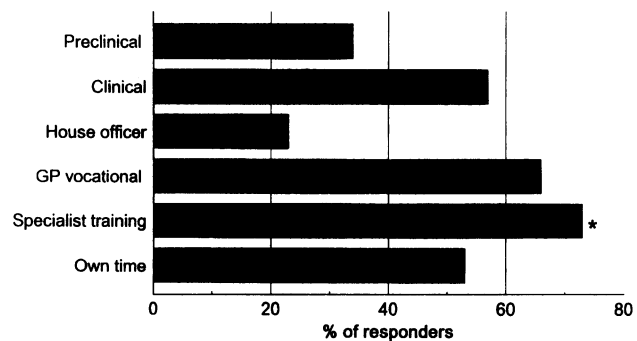


Figure 2 Medical students' views on timing of instruction on complementary medicine. *Specialist training question inadvertently omitted from first 50 questionnaires

For instance, what is the reason for the growing popularity of complementary medicine? Does it reflect deficiencies in conventional medicine? If so, are these deficiencies real or only perceived? How should the medical profession deal with these issues? By incorporating complementary medicine techniques, or by cooperating with and referring patients to complementary medicine practitioners, or by publicly debunking complementary medicine?

According to the World Health Organization, 75% of the world's population depends on indigenous medical systems. These may be imported into developed countries by immigrants, or adopted by practitioners in these countries. What are the implications for doctors practising in areas where there are large ethnic minorities? Does the adoption by practitioners of techniques originating in other cultures constitute cultural theft? Many complementary medicine techniques are based on theoretical systems very different from the biomedical paradigm which dominates

modern western medical education. Vitalism and holism are particularly prevalent in complementary medicine. Are these concepts scientifically valid, or are they metaphysical? Are they the exclusive preserve of complementary medicine, or do they represent ground which conventional medicine should endeavour to recapture?

Our survey of all medical schools in the UK indicates that most offer no instruction in complementary medicine. Although there is evidence of curriculum development, it is clear that teaching of complementary medicine is generally small scale and haphazard. In the light of burgeoning public demand, growth of the medical literature and medical students' wish for more instruction in complementary medicine, as demonstrated in our survey, the BMA's recommendation that 'consideration should be given to the inclusion of a familiarization course on non-conventional therapies within the medical undergraduate curriculum'¹, appears amply justified.

We suggest that a national core syllabus on complementary medicine be devised in consultation with organizations that teach complementary medicine to registered health professionals, such as the Faculty of Homoeopathy and the British Medical Acupuncture Society. It should include definition of complementary and alternative medicine, basic information on therapies and which patients consult complementary medicine practitioners for which conditions (see Table 2). It is important that future doctors are aware of who practises complementary medicine, in particular the training and regulation of non-medically qualified practitioners and the ethical aspects of referral and delegation of care to such practitioners. For the major forms of complementary medicine—acupuncture, homoeopathy, hypnosis and spinal manipulation—there should be fuller discussion of the method, the evidence base and scientific problems involved, possible indications, contraindications and adverse reactions. In addition, the course module should provoke medical students to think about some of the broader issues raised by the growth of complementary medicine.

Acknowledgments We thank the medical students of St George's Hospital Medical School and the deans of the medical schools who responded to our questionnaires.

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Table 2 Suggested core curriculum in complementary medicine

Core content

- Definition of complementary and alternative medicine. What therapies are included?
- Which patients consult complementary medicine practitioners for which conditions?
- Who practises complementary medicine? Training and regulation of non-medically qualified practitioners. Referral and delegation.
- Evidence basis, indications, contraindications and adverse reactions of the four major therapies (acupuncture, homoeopathy, hypnosis, osteopathy)

Discussion points

- Why is complementary medicine getting more popular? Does it reflect deficiencies in conventional medicine? How should the medical profession react?
- Indigenous and traditional medicine. Implications for doctors working with ethnic minorities
- Epistemology: vitalism and holism. Are they scientifically valid? Are they exclusive to complementary medicine?

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