

## Chapter 1

# THE POPULARITY OF ALTERNATIVE MEDICINE

### **What is alternative medicine?**

“Alternative medicine” is a term that covers an extra-ordinarily diverse and wide range of diagnostic methods and treatments that are sometimes used in the management of human illness but which have not been generally accepted by the medical profession. They range from iridology (diagnosis of disease by looking at the eye) through homeopathy (drug treatment which has been so diluted that there is no drug left) to osteopathy (manipulation of the spine or soft tissues to cure all manner of diseases).

Other terms have been used to describe this mixed bag of approaches. Depending upon the bias or viewpoint of the author, alternative medicine has also been described as “complementary”, “unconventional”, “unorthodox”, “holistic”, “natural”, “marginal”, “fringe” or “placebo” medicine.

Conversely, practitioners of alternative medicine sometimes refer to the orthodox or standard, scientific medicine that you and I are familiar with as “allopathic medicine”. This is a vaguely derogatory or insulting term that was originally coined by Samuel Hahnemann, the founder of homeopathy. It is derived from Greek words meaning “other than disease” because he felt that the doctors of his day did not prescribe drugs logically in relation to a patient’s symptoms.

We have now reached the point where we can develop a definition of alternative medicine. It is perhaps best described by what it is not rather than what it is. *Alternative medicine encompasses those practices that are not in conformity with the standards of the medical community and are not widely taught in Western medical schools but which are offered for the preservation of health or the diagnosis and treatment of illness.*

Why are these methods not taught in medical schools? It is because these alternative systems are not based on objective, scientific data. Rather they are usually founded on vague metaphysical ideas and alternative practitioners make few attempts to objectively quantify the value or effectiveness of their interventions. In short, the proponents of alternative medicine make little or no attempt to prove that their methods work. There are two major reasons for this - either they do not have the skills to undertake such research or, for one reason or another, they simply do not want to.

Such is the public interest in alternative methods of healing, however, that the medical profession over the last twenty-five years or so has begun to apply the rigours of scientific investigation to alternative medicine. “Alternative medicine” embraces every practice from

the frankly fraudulent through the foolishly harmless to the probably useful so each category has to be examined in its own right. The aim of this book is to try to draw all this work together and present it in a digestible form so that the interested layman can know with some confidence what is known, or not known, about the multitude of alternative therapies that are clamouring for his attention and his money.

In this chapter, we will examine who uses alternative practices and postulate reasons why people do so. The next chapter describes the scientific method, that is, the underlying philosophy by which it can be shown whether something works or whether it does not. The third chapter points to ways of accessing further information. The remaining chapters take each alternative method in turn, in alphabetical order for convenience, and marshal the evidence for and against.

I started gathering the material that provides the foundation for this book some fifteen years ago. I began with a rather jaundiced eye, presuming alternative medicine to be a pot-pourri of nonsense and a farrago of lies. That view has been confirmed in the case of many alternative procedures. But I have found, somewhat to my surprise, that there are some areas that do have something to offer and selected aspects are likely one day to become part of the mainstream of medicine. These include elements of acupuncture, hypnosis, manipulation, meditation and some dietary interventions. In recent times, some people have attempted to draw the more helpful areas of alternative medicine into mainstream medicine and call it *integrative medicine*.<sup>1,2</sup> Nevertheless, what is clear is that the value of these interventions tends to be marginal and is nowhere near as dramatic or effective as many diagnostic or therapeutic procedures in orthodox medicine such as radiology for imaging the state of the internal organs, the power of a surgical operation in appendicitis, or the remarkable ability of antibiotics to cure patients with otherwise fatal infections.

### **Who uses alternative medicine?**

Traditional or folk remedies are undoubtedly very widely used in many parts of the world, particularly the third world, where orthodox medicine is non-existent, inadequate, or too expensive. There is simply no alternative. But alternative therapies are being used increasingly in the richer countries of the first world. A number of studies have recently attempted to quantify the use of alternative medicine in such countries.

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<sup>1</sup>Penson RT, Castro CM, Seiden MV, Chabner BA, Lynch TJ. Complementary, alternative, integrative or unconventional medicine? *The Oncologist* 6: 463-473, 2001

<sup>2</sup>Cohen MC. CAM practitioners and "regular" doctors: is integration possible? *Medical Journal of Australia* 180: 645-646, 2004

Table 1. Percentage of doctors in Auckland, New Zealand practising a form of alternative therapy and percentage of doctors referring patients for such therapy.

Therapy	Practising doctors	Referring doctors
acupuncture	16	62
osteopathy	5.1	27
homeopathy	2.7	21
hypnotherapy	2.1	20
prayer	1.8	2.1
herbal medicine	1.2	4.8
vega testing	0.6	2.1
meditation	0.6	2.1
anthroposophical medicine	0.3	-
chelation therapy	0.3	-
moxibustion	0.3	-

Note: doctors also referred patients for chiropractic (4.1%), Bach flower therapy (2.1%), Maori medicine (1.4%) and the Alexander technique (0.7%).

#### *Australasia*

In 1990, Dr Roger Marshall and his colleagues from the University of Auckland medical school surveyed the use of alternative medicine by general practitioners in Auckland, New Zealand. Three hundred and seventy doctors were canvassed and 249 (67%) responded. Of these, 30% practised one or more forms of alternative therapy and 69% said they would refer patients for alternative therapies (Table 1). The most frequent conditions treated by these methods were musculoskeletal problems and pain. The investigators concluded that their survey demonstrated that alternative therapies are now an integral part of primary health care in New Zealand.<sup>3</sup> This may be an unwarranted statement. The authors did not report how often general practitioners referred patients for alternative care. If they did it frequently, that is one thing, but if they did it rarely, that is another thing altogether. Furthermore, the researchers made no attempt to determine whether the medical practitioners initiated the idea of referral or whether they just went

<sup>3</sup>Marshall RJ, Gee R, Israel M, Neave D, Edwards F, Dumble J *et al.* The use of alternative therapies by Auckland general practitioners. *New Zealand Medical Journal* i: 213-215, 1990

along with their patients' wishes.

The Royal Australasian College of Physicians surveyed 849 of its fellows in Victoria, Australia. Only just over one quarter responded. Amongst the specialists, rheumatologists and cancer specialists were most aware of the use of alternative therapies by their patients.<sup>4</sup> In fact, the Australian Health Survey for 1977-78 estimated that in a four-week period, about 2% of Australians had consulted a chiropractor, naturopath or osteopath on about 386,000 occasions. This compares with about 17% of the population consulting doctors about 3.5 million times during two weeks.<sup>5</sup> It is very likely that since then the proportion of the population consulting alternative practitioners has increased considerably.

This would certainly be suggested by the observations of Dr AH MacLennan from the University of Adelaide and his colleagues from the South Australian Health Commission.<sup>6</sup> They participated in a representative survey of the South Australian population in which 3,004 people aged 15 years or more were interviewed. Of the respondents, 20.3% had visited at least one alternative practitioner in the previous year; 75% of these consultations had been with a chiropractor. Furthermore, almost half of those surveyed had used at least one non-medically prescribed alternative medicine. They extrapolated their findings to the whole Australian population and estimated that in 1993, \$AU621 million was spent on alternative medicines and \$309 million was expended on alternative therapists.

Seven years later, MacLennan and his colleagues repeated their survey.<sup>7</sup> This time, 23.3% of respondents had visited at least one alternative medical practitioner and there was increasing use of acupuncturists, reflexologists, aromatherapists and herbal therapists. These users were more likely to be educated, employed and relatively wealthy women. Expenditure had increased enormously. The authors calculated that there had been a 120% increase in the cost of alternative medicines and a 62% rise in the cost of consulting alternative therapists between 1993 and 2000, with a total expenditure in 2000 of \$AU2.3 billion.

Slightly different usage patterns were detected by the Australian Longitudinal Study on Women's Health.<sup>8</sup> This survey found that there was a relatively increased use of alternative medicine by middle-aged, non-urban women who were more likely to complain of symptoms and were also more likely to make greater use of conventional medical

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<sup>4</sup>Wahlqvist ML, Clark ACL, Moulds RFW, Metz GL, Sullivan JR, Court JM *et al.* Alternative medicine. *Medical Journal of Australia* 143: 152, 1985

<sup>5</sup>Maddocks I. Alternative medicine. *Medical Journal of Australia* 142: 547-551, 1985

<sup>6</sup>MacLennan AH, Wilson DH, Taylor AW. Prevalence and cost of alternative medicine in Australia. *The Lancet* 347: 569-573, 1996

<sup>7</sup>MacLennan AH, Wilson DH, Taylor AW. The escalating cost of and prevalence of alternative medicine. *Preventive Medicine* 35: 166-173, 2002

<sup>8</sup>Adams J, Sibbritt DW, Easthope G, Young AF. The profile of women who consult alternative health practitioners in Australia. *Medical Journal of Australia* 179: 297-300, 2003

services.

General practitioners in Victoria, Australia were surveyed recently.<sup>9</sup> Sixty-four per cent of a sample of 800 general practitioners responded to a postal questionnaire. Over 80% of them had referred patients for acupuncture, hypnosis or meditation. Indeed, about a quarter of GP's had themselves trained in one or more of these techniques. Surprisingly, half of them believed that chiropractic, vitamin therapy, herbal medicine, naturopathy, osteopathy and homeopathy should be eligible for Medicare rebates.

### *North America*

#### United States of America

Alternative medicine is big business in the United States. David Eisenberg MD and colleagues from a number of institutions including Harvard Medical School in Boston, the University of Michigan at Ann Arbor and the Chicago College for Osteopathic Medicine, undertook a national survey. They aimed to estimate the prevalence, costs, and usage patterns of 16 types of alternative therapies. Interestingly, because of the biases of the investigators, chiropractic was defined as an unconventional therapy whereas osteopathy was classified with orthodox medicine.

These investigators undertook a survey by telephone interview of 1,539 English-speaking adults across the country. The telephone numbers were generated randomly and the respondents represented 67% of the eligible people to whom they spoke. They reported their findings in 1993 in a paper<sup>10</sup> entitled "Unconventional medicine in the United States: prevalence, costs, and patterns of use". Despite the limitations of a telephone survey, this study does give some some useful information. Thirty-four per cent of the respondents had used at least one form of alternative therapy in the preceding year and 11% of them had visited a practitioner of alternative medicine during that time (Table 2). By far the largest proportion of alternative therapies used were exercise and prayer, both of which many people would probably not consider alternative medicine but either common sense or belonging to the realm of religion. Acupuncture and homeopathy were not much in favour in the United States. Different social groups used alternative medicine to different degrees, but the highest usage was found in white people aged between 25 and 49 years who were relatively more educated and had higher incomes. These therapies were mostly tried for chronic, non-life-threatening illnesses.

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<sup>9</sup>Pirotta MV, Coehn MC, Kotsirilos V, Farish SJ. Complementary therapies: have they become accepted in general practice? *Medical Journal of Australia* 172: 105-109, 2000

<sup>10</sup>Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL. *New England Journal of Medicine* 328: 246-252, 1993

Table 2. Percentage of adult Americans who had used an alternative therapy or visited a therapist and the mean number of visits to such a therapists in 1990.

<b>Therapy</b>	<b>% used a therapy</b>	<b>% visited a therapist</b>	<b>Mean number of visits</b>
acupuncture	<1	<1	38
biofeedback	1	0.2	6
chiropractic	10	7.0	13
commercial weight loss programs	4	1.0	23
energy healing	1	0.3	8
exercise	25	-	-
folk remedies	<1	0	0
herbal medicine	3	0.3	8
homeopathy	1	0.3	6
hypnosis	1	0.5	3
imagery	4	0.6	14
lifestyle diets	4	0.5	8
massage	7	2.9	15
megavitamin therapy	2	0.2	13
prayer	25	-	-
relaxation techniques	13	1.2	19
self-help groups	2	0.8	21
spiritual healing	4	0.4	14

Perhaps more revealing are the figures relating to visits to unconventional therapists. The investigators extrapolated their results to the total US population and estimated that 425 million visits were made to alternative practitioners. This compares with an estimated 388 million visits to primary care medical doctors. Since the average cost of a visit to a provider of alternative therapy was \$27.60, this amounted to an expenditure in 1990 of 11.7 billion US dollars; about 30% of this amount was reimbursed from public and private health insurance. A further \$2 billion was spent on megavitamin supplements (\$0.8 billion) and commercial dietary supplements (\$1.2 billion). This expenditure on alternative medicine is just over half the out-of-pocket (ie unreimbursed) amount spent on all medical

practitioner services in the US (\$23.5 billion in 1990). If osteopathy had been included as an alternative practice, the costs of unconventional medicine would have been even higher.

Seven years later, the same group of investigators repeated their study.<sup>11</sup> They found that 42% of the US population used at least one other form of alternative medicine in 1997 compared with 34% in 1990. All modalities of alternative medicine were used more frequently but the greatest increases were in the use of herbs (12.1 cf 2.5%), massage (11.1% cf 6.9%) and megavitamins (5.5% cf 2.4%). Chiropractic did not change much (11% vs 10.1%), acupuncture was still on the floor (1.0% versus 0.4%) but homeopathy had lifted its rating from 0.7% to 3.4%.

Investigators from the National Center for Health Statistics at the Centers for Disease Control and Prevention (CDC) gathered data from the 1999 National Health Interview Survey.<sup>12</sup> They calculated that 28.9% of adult Americans had used at least one form alternative medicine in the previous year with spiritual healing or prayer (13.7%), herbal medicine (9.6%) and chiropractic (7.6%) being the most common. Alternative medicine was utilised most frequently by women, the middle-aged and the more educated, but these same groups were also more likely to access conventional medical services.

The most recent survey reported from the United States was undertaken jointly by investigators from the Division of Health Interview Statistics of CDC and the National Center for Complementary and Alternative Medicine of the National Institutes of Health.<sup>13</sup> They interviewed 31,044 Americans aged 18 years and over. If prayer was included, an extraordinary 62% of adults had used some form of alternative medicine during 2002. When prayer for specific health reasons was removed from the calculations, 36% of those interviewed has still used some form of alternative medicine. The frequencies of the most commonly used as well as some other selected alternative therapies are shown in Table 3. Among herbal medicines, echinacea (40.3%), ginseng (24.1%), ginkgo (21.1%) and garlic (19.9%) were the most popular. The Atkins diet was the most popular diet (1.7%) followed by vegetarianism (1.6%), macrobiotic diet (0.2%), zone diet (0.2%) and Pritikin diet (0.1%). In the United States, naturopathy does not appear to be particularly popular, and reflexology did not rate a mention in this survey.

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<sup>11</sup>Eisenberg DM et al. Trends in alternative medicine use in the United States, 1990-1997. Results of a follow-up national survey. *Journal of the American Medical Association* 280: 1569-1575, 1998

<sup>12</sup>Ni H, Simile C, Hardy AM. Utilization of complementary and alternative medicine by United States adults: results from the 1999 national health interview survey. *Medical Care* 40: 363-358, 2002

<sup>13</sup>Barnes PM, Powell-Griner E, McFann K, Nahin RL. Complementary and Alternative Medicine Use among adults: United States, 2002. *Advance Data CDC* 343: 1-20, 27 May 2004

Table 3. Frequencies of use of various alternative therapies by adult Americans in 2002.

prayer for health reasons	45.2%
herbal medicines and related products	18.9%
breathing exercises	11.6%
meditation	7.6%
chiropractic	7.5%
massage	5.0%
diet	3.5%
megavitamins	2.8%
homeopathy	1.7%
acupuncture	1.1%
Reiki therapy	0.5%
hypnosis	0.2%
naturopathy	0.2%

Alternative medicine has become so pervasive in the United States that it has had a significant effect on politics and medical policy. In 1992, the US Congress set up the Office of Alternative Medicine in response to pressure by Senator Harkin, a die-hard fan of alternative medicine, who was also the ranking Democrat on the subcommittee that approved the expenditure for the National Institutes of Health (NIH). It soon gained a reputation as a counter-culture enclave for pseudoscience and the first director resigned, claiming that the advisory board had been stacked with credulous and meddling advocates then the Office's credibility fell even further under its next director, a homeopath.<sup>14</sup> Nevertheless, Harkin was persuasive. Despite the presidential science adviser urging Congress in 1977 to abolish the office, Congress over-rode the director of NIH and established the National Center for Complementary and Alternative Medicine within NIH and massively increased the budget. In 2000, President Clinton assembled the White House Commission on Complementary and Alternative Medicine policy and directed the panel to make administrative and legislative recommendations to maximise the benefits of alternative therapies to Americans. The panel report called on the government to boost spending for research, training and education in complementary and alternative medicine. Opponents criticised the panel and its recommendations, noting that the panel was overloaded with advocates of alternative medicine and showed too much enthusiasm and not enough scepticism about unconventional treatments that have neither been proven

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<sup>14</sup>Stokstad E. Alternative medicine: Stephen Straus's impossible job. *Science* 288: 1568-1570, 2000

to be effective or safe.<sup>15</sup> The critics lost and the alternative medicine lobby has been enormously successful. For good or ill, the budget of the Office/Center has increased from 2 million in 1992 to 117.7 million US dollars in 2004. Information about this operation may be found on the Internet at <http://nccam.nih.gov>.

#### Canada

There are variations in the use of alternative therapies in Canada where the availability of osteopathy, for example, is very limited. Nevertheless, the use of alternative medicine is otherwise probably fairly similar to that in the United States. A study of children attending the outpatient clinic of a university hospital in Montreal found that 11% had been taken by their parents to one or more alternative medicine practitioners, mostly chiropractors, homeopaths, naturopaths or acupuncturists.<sup>16</sup> The 1994-95 National Population Health Survey showed that Canadians who consulted alternative providers had similar incomes, more education and slightly fewer chronic diseases than those who did not use them. Twice as many women as men used alternative medicine, but with both groups, alternative medicine was a supplement to orthodox health care rather than replacing it.<sup>17</sup>

#### *Europe*

Alternative medicine is very popular throughout Europe. The usage of various forms of alternative medicine in selected countries is summarised in Table 4. These are estimates and need to be viewed with caution as they represent a drawing together in 1993 of various surveys.<sup>18</sup> Furthermore, circumstances change; for example, 15.7% of the Dutch population attended an alternative practitioner in 1990 compared with only 6.4% in 1981. Moreover, there are marked differences in usage of various forms of alternative medicine in different countries. An example is the amount spent per person on over-the-counter homeopathic medicines each year (Figure 1). These variations probably reflect legal restrictions, the availability of reimbursement from the government or insurance, cultural factors, and whether or not a particular therapy was first propounded in that country.

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<sup>15</sup>Reynolds T. White House report on alternative medicine draws criticism. *Cancer Spectrum* 94: 646-648, 2002

<sup>16</sup>Spigelblatt L, Laine-Ammara G, Pless IB, Guyver A. The use of alternative medicine by children. *Pediatrics* 94: 811-814, 1994

<sup>17</sup>Fries CJ, Menzies KS. Gullible fools or desperate pragmatists? A profile of people who use rejected health care providers. *Canadian Journal of Public Health* 91: 217-219, 2000

<sup>18</sup>Fisher P, Ward A. Complementary medicine in Europe. *British Medical Journal* 309: 107-111, 1994

Table 4. Estimated percentages of the public who have used certain forms of alternative therapy in a variety of European countries. ? = data not available.

Country	Any form	Acupuncture	Homeopathy	Manipulation/osteopathy/chiropractic	Herbal therapies
Belgium	31	19	56	19	31
Denmark	23	12	28	23	?
France	49	21	32	7	12
Germany	46	?	?	?	?
Netherlands	20	16	31	?	?
Sweden	25	12	15	48	?
UK	26	16	16	36	24

Likewise, there is marked variation in the laws governing who can practise alternative medicine. In most European countries it can only be practised by doctors but in the United Kingdom and Ireland most practitioners are non-medical. In other countries, non-medical practitioners of alternative medicine are officially proscribed but tolerated in practice. One of the keystones of the Treaty of Rome is the free movement of labour within the European Union. However, the European Court of Justice has upheld the right of member states to decide whether or not the practice of alternative treatments should be restricted to medical practitioners.

An enormous amount of money is spent on alternative medicine. It has been estimated that in Europe overall in 1994, about 600 million is spent each year on homeopathic remedies bought over the counter in pharmacies and almost 1.5 billion on herbal preparations.

United Kingdom

In 1983, the deputy editor of the *British Medical Journal*, Dr Tony Smith, wrote that,

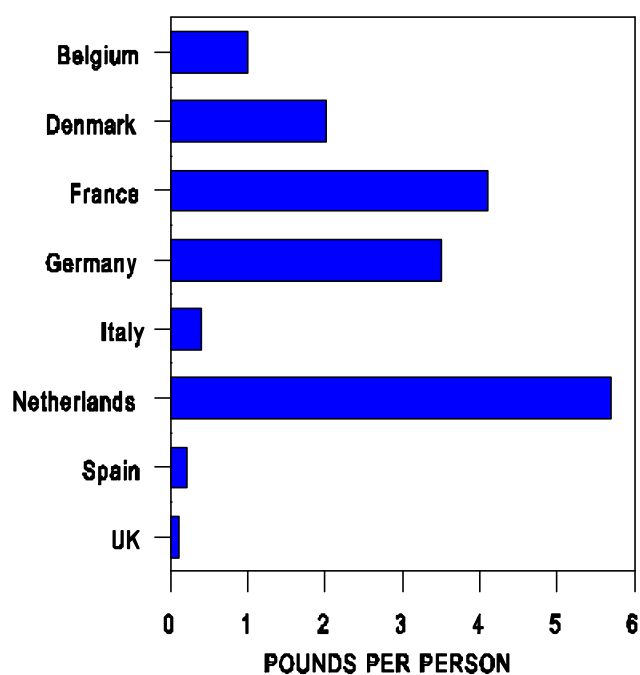


Figure 1. expenditure in pounds sterling per person for over-the-counter homeopathic preparations in selected European countries.

urged on by an endless stream of books, articles and radio and television programmes, alternative medicine was one of the few growth industries in contemporary Britain.<sup>19</sup> Even the doctors were getting interested. A survey of Scottish general practitioner trainees found that most of them wanted to be taught alternative therapies such as hypnosis, manipulation, homeopathy and acupuncture.<sup>20</sup> Subsequently, a survey of 200 general practitioners in the Avon region of England found that many of them practised one or more methods of alternative medicine: spinal manipulation (24%), spiritual healing (7%), hypnosis (5%), homeopathy (5%), acupuncture (3%) and herbal medicine (1%).<sup>21</sup>

<sup>19</sup>Smith T. Alternative medicine. *British Medical Journal* 287: 307, 1983

<sup>20</sup>Taylor Reilly D. Young doctors' views on alternative medicine. *British Medical Journal* 287: 337-339, 1983

<sup>21</sup>Wharton D, Lewith G. Complementary medicine and the general practitioner. *British Medical Journal* 292: 1497-1499, 1986

Table 4. Types of alternative practitioners, expressed as a percentage of the total in Oxfordshire and around Cambridge, England.

healer	22%	naturopath	5%
acupuncturist	19%	yogi	4%
chiropractor	12%	Alexander technique	4%
osteopath	10%	homeopath	3%
manual therapist	7%	radionics	3%
hypnotherapist	5%	herbalist	2%

Nevertheless, Dr Smith argued that since the public sees doctors as scientifically trained clinicians, medical practitioners have an obligation to help guide their patients objectively through the myriad of claims made for alternative medicine.

How successful are they in doing this? In 1980-81, a survey was undertaken in Oxfordshire and around Cambridge of practitioners of alternative medicine. The surveyors found that there were about 12 practitioners for every 100,000 people. The types and numbers of practitioners that they identified are shown in Table 4. Less than half of these practitioners had any formal training. They charged about £10 (in 1980 pounds) for the initial consultation and about £8 for subsequent attendances. There was an annual consultation rate of about 20-25 per 100 people. Women consulted alternative medicine practitioners more frequently than did men, and tended to be young or middle-aged and of a higher social class.<sup>22</sup>

Another survey that was more limited in scope in terms of the practitioners studied but more extensive by virtue of area covered was then undertaken by Kate Thomas and associates from the department of public health at the University of Sheffield. They conducted a postal survey of 2,152 alternative medical practitioners throughout Britain who had been identified from national professional association registers. In addition, they surveyed 2,473 patients attending some of these practitioners. The investigators estimated that there were 1,909 acupuncturists, chiropractors, homeopaths, naturopaths and osteopaths practising in Britain in 1987, and that between them they saw nearly 71,000 patients each week, 78% of whom had a musculoskeletal problem. Twenty-two percent of these patients had seen their general practitioner within the preceding fortnight. The authors concluded that in Britain, alternative treatment was used for a limited range of problems and as a supplement to orthodox medicine.<sup>23</sup>

<sup>22</sup>Fulder SJ, Munro RE. Complementary medicine in the United Kingdom: patients, practitioners, and consultations. *The Lancet* ii: 542-545, 1985

<sup>23</sup>Thomas KJ, Carr J, Westlake L, Williams BT. Use of non-orthodox and conventional health care in Great Britain. *British Medical Journal* 302: 207-210, 1991

This finding was confirmed ten years later by Dr Ong and colleagues from the Health Services Research Unit of the University of Oxford. They sent a postal questionnaire to 14,000 adults in four English counties and achieved a 64% response rate.<sup>24</sup> Sixty per cent of people who used alternative medicine had a chronic illness or disability, back pain and bowel problems being the conditions most commonly reported, but these same people were in poorer health than those who did not use alternative medicine, and made more visits to their general practitioners. Many British general practitioners now recognise the relevance of all of this for a recent survey has shown that one in two general practices in England now offer their patients some access to alternative medicine.<sup>25</sup>

#### Continental Europe

In France, somewhere between one third and one half of people use some form of alternative medicine.<sup>26</sup> Of these, homeopathy is by far the most popular; 36% of the population used it at least once in 1992. Even though the Academy of Medicine in Paris is sceptical about the value of homeopathy and other forms of alternative therapy, some 10,000 doctors use homeopathy. An estimated US\$400 million is spent annually on over-the-counter homeopathic preparations and nearly \$1.6 billion is disbursed on homeopathic preparations ordered by prescription. Like standard medications, homeopathic prescriptions qualify for a state subsidy.<sup>27</sup> The French pharmacopoeia has a section on homeopathic remedies and almost every pharmacy has stocks of these preparations. Some 10-15% of the population use acupuncture and a similar number buy herbal preparations. Acupuncture is provided only by medical practitioners and financial reimbursement is available. Acupuncture was brought to France 50 years ago and approximately 1,000 doctors are trained in it. Herbal therapy and aromatherapy are also practised by doctors. Thermal therapy in spas is widely used. Doctors select spas that are said to be specific for arthritis, chest disease, heart disease, bladder or kidney troubles, and digestive upsets. It is illegal in France for anyone other than a doctor to practise chiropractic and about 200 doctors do so. Even so, there is a French Institute of Chiropractic in Paris and non-medical chiropractors and osteopaths can be found.

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<sup>24</sup>Ong CK, Petersen S, Bodeker GC, Stewart-Brown S. Health status of people using complementary and alternative medical practitioner medical services in 4 English counties. *American Journal of Public Health* 92: 1653-1656, 2002

<sup>25</sup>Thomas KJ, Coleman P, Nicholl JP. Trends in access to complementary or alternative medicines via primary care in England: 1995-2001 results from a follow-up national survey. *Family Practitioner* 20: 575-577, 2003

<sup>26</sup>Dorozynski A. France. In, *Complementary medicine is booming*. *British Medical Journal* 313: 132, 1996

<sup>27</sup>Fulder S. *The handbook of complementary medicine*, Oxford University Press, Oxford, second edition, 1988

Manipulation is most commonly provided by physiotherapists with 2,000-4,000 of them using alternative methods. Of France's 55,000 general practitioners, it has been estimated that 5% of them use alternative medicine exclusively, 21 "often", and 73% "occasionally". Both orthodox and alternative therapy is paid for by the patient. Whereas conventional therapy is fully reimbursed by health insurance, alternative treatments are only partially reimbursed.

The situation in Belgium is rather similar to that pertaining in France. Most homeopathy and acupuncture are carried out by doctors while manipulation is fairly equally divided between physiotherapists and other non-medically qualified practitioners. In 1986, 75% of Belgian practitioners of alternative medicine were medically qualified and only patients of these practitioners had their expenses reimbursed through the social security system.

Nearly one half of the German population is thought to use one or more forms of alternative medicine. Germany has a unique health practitioner (*Heilpraktiker*) system which was originally introduced in 1939. This system licenses practitioners who are not members of a recognised health profession to practise provided they pass an examination in basic medical knowledge. It is administered by the various provincial governments and standards vary considerably. These practitioners are prohibited from practising obstetrics, dentistry and dealing with patients with sexually transmitted diseases. The *heilpraktikers* were originally naturopaths but now these individuals may practise acupuncture, chiropractic, herbal therapy, homeopathy and so on. Homeopathy flourishes in the land of its birth. At least US\$350 million is spent annually on over-the-counter homeopathic remedies. There are at least 700 homeopathic doctors, one large homeopathic hospital and several sanatoria.<sup>15</sup> Like homeopathy herbal medicines are enormously popular. In fact, herbal therapies constitute 10% of the total pharmaceutical market in Germany. In fact, Germany is the centre of the international trade in herbs and most pharmacies have herbal products prominently on display. Acupuncture is practised by 2.4% of the country's doctors but its use is not restricted to medical practitioners. Three-quarters of the pain clinics in the country use this modality of treatment. Naturopathy figures prominently in Germany, being popularised by Sebastian Kneipp in the 19<sup>th</sup> century. This therapy revolves around spas and is based upon water therapy, exercise and diet. The main spa is in Bad Worishöfen which has about 50 Kneipp doctors, 80 masseurs and 120 bath attendants.

The alternative medicine scene in Austria is similar to that in Germany but particularly popular is anthroposophical medicine inspired by the Austrian, Rudolph Steiner.

In the Netherlands, the practice of alternative medicine except by medical practitioners is officially illegal. Nevertheless, the Dutch government indicated that it will not prosecute non-medically qualified practitioners unless there is malpractice, although as discussed later, this may be under review. This decision arose out of popular feeling and

the recommendations of a major Commission on Alternative Systems of Medicine set up by the Dutch government in 1977. Nearly half of the country's general practitioners use some form of alternative medicine, mostly homeopathy (40%), manipulation (9%) and acupuncture (4%).<sup>8</sup> It is estimated that almost 20% of the Dutch population uses some form of alternative medicine. The usual gamut of therapies are utilised. Nearly US\$50 million is spent each year on homeopathic remedies. Acupuncture is commonly employed and spiritual healers are much in demand.

In Norway, attitudes to alternative medicine vary widely. Public demand is rising but doctors remain hostile. Alternative medicine is deregulated and can be practised by anyone but patients themselves have to pay for treatment. Homeopathy is the most widely practised form of alternative medicine followed by acupuncture and aromatherapy. Other therapies are relatively uncommon.<sup>28</sup> About one quarter of the populations of Denmark and Sweden use some sort of alternative medicine. In Denmark, the most popular forms are reflexology (39% of users of alternative medicine), homeopathy (about \$7 million are spent annually on over-the-counter products), manipulation and acupuncture. Non-medically qualified practitioners may practise in Denmark but their scope is limited by law.<sup>8</sup> As one might expect, massage and manipulation are very popular in Sweden and Finland. Acupuncture and homeopathy are relatively prominent in these two countries.

Italy, Spain and Portugal tend to follow the French model. In all of these countries as well as in Greece, the practice of forms of medicine except by health professionals recognised by statute is illegal but definitions of what is a health professional vary. None of these countries has any complementary medicine hospitals within the public sector. The Italians spend about US\$20 million per year on over-the-counter homeopathic products compared with about \$8 million by the Spanish. Acupuncture in Italy is restricted to medical practitioners and is reimbursed by public health insurance. In Switzerland, individual cantons decide to what extent therapists who are not qualified as doctors are permitted to practise alternative medicine.

In Eastern Europe, there are strong folk traditions of herbal medicine but alternative therapies were in general not encouraged within the state health systems during most of the post-war years. Bans on the practice of homeopathy in a number of eastern European countries have been lifted since the fall of communism. In Russia, Western medicines are expensive and often inaccessible. Many rural Russians collect herbs and grasses to brew their own remedies for common ailments. The teaching and practice of alternative medicine first became legal in 1993. In 1996, the Ministry of Health recognised the eight most popular forms of alternative medicine, including reflexology, chiropractic, massage, homeopathy and the Buteiko breathing method (a peculiarly Russian form of therapy for

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<sup>28</sup>Lie LG. Norway. In, Complementary medicine is booming worldwide. *British Medical Journal* 313: 132, 1996

asthma). Some alternative procedures such as acupuncture and manipulation can only be performed by those who are medically trained.<sup>29</sup>

### *Japan*

Not surprisingly, the distinction between Western and alternative medicine is rather blurred in Japan and is probably used by more than half of the population. Traditional Japanese medicine was introduced from China some 1,000 years ago whereas Western medicine has only been practised for the last 200 years. The most popular forms of therapy are herbal medicine and acupuncture or acupressure. Herbal medicines comprise 3% of the total pharmaceutical budget and 600 preparations are freely available at pharmacies under the public health insurance system. There are about 95,000 acupressurists and 65,000 acupuncturists in Japan but these forms of therapy are not refundable by public health insurance.<sup>30</sup>

### **The usage of alternative medicine in selected conditions**

Alternative medical approaches have particular appeal in those conditions in which orthodox medicine is limited in its ability to deal with an illness. Under such circumstances, frustrated or desperate patients are often prepared to give anything a go. Two conditions where a lot of attention has been paid to alternative therapies are cancer and arthritis.

### *Cancer*

There have been a number of studies of the use of alternative therapies by cancer patients in various countries. Ms SM Downer, a research nurse, and colleagues from the department of medical oncology (cancer treatment) at St Bartholomew's Hospital in London, England sent a postal questionnaire to 600 patients who had known of their cancer diagnosis for at least three months; 69% responded. The investigators found that 16% of their patients had used complementary therapies, the most popular being healing (10.3%), relaxation (5.7%), visualisation (5.4%), diets (4.2%), homeopathy (3.9%), vitamins (3.2%), herbalism (3.2%), the "Bristol approach" (3.2%), acupuncture (2.2%) and meditation (2.2%).<sup>31</sup> Most patients used two or more of these therapies as well as

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<sup>29</sup>Ingram M. Russia. In, Complementary medicine is booming worldwide. *British Medical Journal* 313: 133, 1996

<sup>30</sup>Yamauchi M. Japan. In, Complementary medicine is booming worldwide. *British Medical Journal* 313: 132, 1996

<sup>31</sup>Downer SM, Cody MM, McCluskey P, Wilson PD, Arnott SJ, Lister TA *et al.* Pursuit and practice of complementary therapies by cancer patients receiving conventional treatment. *British Medical*

receiving conventional treatment for cancer. There were some side-effects with herbal remedies and diets, but patients in general derived the psychological benefits of hope and optimism.

Rather similar findings were found in a study of over 1,000 Dutch patients in Amsterdam; 9.4% of cancer patients were currently using alternative therapies and 5.8% had in the past but had since stopped. Only a minority of patients believed they could be cured by alternative approaches but they hoped that such measures would slow the progression of disease or increase their resistance.<sup>32</sup> The authors concluded that the motivation for seeking alternative treatment was fear and uncertainty rather than a belief in the efficacy of these therapies.

Similarly, in Canada, Mr Richard Eiding and Dr David Schapira<sup>33</sup> interviewed hundreds of patients with cancer and found that 7% were taking or had taken unconventional therapies and a third of patients had become more religious since learning of their disease. Likewise in New Zealand, some 12% of patients sought advice on alternative therapies and 6% of them used them, the most frequent intervention being the consumption of restricted vegetarian diets.<sup>34</sup> Surveys in the United States of America have suggested that somewhere between 9% and 80% of cancer patients use one or more forms of alternative therapy in addition to conventional therapy. Mental imagery, diets, herbal therapies and megavitamins were the most popular practices used.<sup>35, 36</sup> In the USA, a specific Office of Cancer Complementary and Alternative Medicine was established in 1998 to enhance the activities of the National Cancer Institute in the arena of complementary and alternative medicine.

Oncologists (cancer specialists) have increasingly recognised the importance of understanding more about alternative medicine because so many of their patients are using these therapies. A number of articles have now appeared in the medical literature in order to assist cancer specialists.<sup>37,38</sup>

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*Journal* 309: 86-89, 1994

<sup>32</sup>Van der Zouwe N, van Dam FS, Aaronson NK, Hanewald GJ. [Alternative treatments in cancer: extent and background of utilization.] *Nederlands Tijdschrift voor Geneeskunde* 138: 300-306, 1994

<sup>33</sup>Eiding RN, Schapira DV. Cancer patients' insight into their treatment, prognosis and unconventional therapies. *Cancer* 53: 2736-2740, 1983

<sup>34</sup>Clinical Oncology Group. New Zealand cancer patients and alternative medicine. *New Zealand Medical Journal* i: 110-113, 1987

<sup>35</sup>McGinnis LS. Alternative therapies, 1990. *Cancer* 67: Supplement, 1788-1789, 1991

<sup>36</sup>Bernstein BJ, Grasso T. Prevalence of complementary and alternative medicine in cancer patients. *Oncology* 15: 1267-1272, 2001

<sup>37</sup>Ernst E. A primer of complementary and alternative medicine commonly used by cancer patients. *Medical Journal of Australia* 174: 88-92, 2001

<sup>38</sup>Wieger WA, Smith M, Boon H, Richardson MA, Kaptchuk TJ, Eisenberg DM. Advising patients who seek complementary and alternative medical therapies for cancer. *Annals of Internal Medicine* 137: 889-903, 2002

### *Arthritis*

In 1981, a British Broadcasting Corporation television programme suggested that alternative medicine may have more to offer patients with chronic arthritis than did conventional treatment. Dr T Pullar and colleagues from the rheumatology unit of the Glasgow Royal Infirmary in Scotland then surveyed 78 of their patients to find out whether they used these therapies. A number of practices had been used in the previous year, including vitamins (31%), herbal remedies (26%), diets (12%), copper bracelets (6%) and acupuncture (5%), but only a small number patients found these therapies helpful.<sup>39</sup>

Similarly, in Melbourne, Australia, 52% of 90 patients with rheumatoid arthritis were using an unproven remedy. Many patients took dietary measures including the consumption of vitamins, cod liver oil, cider vinegar and honey, kelp and lecithin on the one hand and avoidance of “acid foods”, orange juice, sugar, tomatoes, alcohol, red meat and/or wheat products on the other. Sixty-one per cent of patients wore a copper bracelet and a quarter of patients applied an extract of green mussel (sealone). A small proportion of patients consulted acupuncturists, naturopaths, herbalists or chiropractors.<sup>40</sup> Similar results were found in Sydney, Australia nearly 20 years later in patients with osteoarthritis. Alternative medicines, particularly vitamin supplements, celery extract, fish oil and garlic, were used by 40% of patients but they only spent an average of \$33 Australian on these products.<sup>41</sup>

In The Netherlands, 25% of nearly 1,500 patients of 17 rheumatologists had visited an alternative practitioner in the previous year. Hand healers, homeopaths and acupuncturists were the most popular. Interestingly, their satisfaction with alternative treatment turned out to be less than their satisfaction with the help given by their rheumatologists.<sup>42</sup>

### *AIDS*

Many patients with AIDS are turning to alternative therapies in the hope that such

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<sup>39</sup>Pullar R, Capell HA, Millar A, Brooks RG. Alternative medicine: cost and subjective benefit in rheumatoid arthritis. *British Medical Journal* 285: 1629-1631, 1982

<sup>40</sup>Kestin M, Miller L, Littlejohn G, Wahlqvist M. The use of unproven remedies for rheumatoid arthritis in Australia. *Medical Journal of Australia* 143: 516-518, 1985

<sup>41</sup>Zochling J, March L, Lapsley H, Cross M, Tribe K, Brooks P. Use of complementary medicines for osteoarthritis – a prospective study. *Annals of Rheumatic Diseases* 63: 549-554, 2004

<sup>42</sup>Visser GJ, Peters L, Rasker JJ. Rheumatologists and their patients who seek alternative care: an agreement to disagree. *British Journal of Rheumatology* 31: 485-490, 1992

measures will augment their immune systems and enhance their resistance. Dr SE Barton and colleagues from the St Stephen's Clinic in London, England surveyed 190 HIV-positive patients attending their clinic. Thirty-eight per cent had used at least one alternative therapy with massage (20%), visualisation therapy (10.5%), acupuncture (8.4%), hypnosis (7.9%), homeopathy (7.9%), vitamins (6.8%), aromatherapy (6.8%), crystal therapy (4.2%) and osteopathy (4.2%) being the most popular.<sup>43</sup> Fifteen years later, despite the development of much more effective therapy against AIDS, the use of alternative therapies by people suffering from HIV infection has risen in parallel with the huge increase in their use in the general population.<sup>44</sup>

#### *Diabetes mellitus*

Insulin-dependent diabetes mellitus is a serious condition. Many patients with this chronic condition have experimented with various alternative treatments. This may be particularly dangerous if patients stop or reduce their insulin. Dr GV Gill and colleagues from the Walton Hospital in Liverpool, England described four patients who became seriously ill when they stopped their insulin after prayer, faith healing, dieting or supplementation of their diet with vitamins and minerals.<sup>45</sup>

#### *Hepatitis*

Hepatitis means inflammation of the liver. There are many causes of chronic hepatitis but among the more difficult to treat by conventional medicine are those patients with hepatitis B virus and hepatitis C virus infections. Many patients try a variety of alternative therapies. Although claims have been made that some may be promising, there is unfortunately no definite evidence that any of them are of any use.<sup>46</sup>

#### **Why do people seek alternatives to medicine?**

At the same time as scientific medicine continues to go from strength to strength with one advance after another, alternative medicine is enjoying a remarkable boom. Witness the plaintive words in an editorial in the *British Medical Journal* entitled "The flight from

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<sup>43</sup>Barton SE, Hawkins DA, Jadresic DM, Gazzard BG. Alternative treatments for HIV infection. *British Medical Journal* 298: 1519-1520, 1989

<sup>44</sup>Ernst J. Alternative treatment modalities in human immunodeficiency virus/acquired immune deficiency syndrome. *Clinical Infectious Diseases* 37 Suppl: 150-153, 2003

<sup>45</sup>Gill GV, Redmond S, Garratt F, Paisey R. Diabetes and alternative medicine: cause for concern. *Diabetes Medicine* 11: 210-213, 1994

<sup>46</sup>Coon JT, Ernst E. Complementary and alternative therapies in the treatment of chronic hepatitis C: a systematic review. *Journal of Hepatology* 40: 491-500, 2004

science”:

“For treating conditions other than bone and joint abnormalities chiropractic, for example (a system of medicine based on the belief that most diseases are due to malalignment of the intervertebral joints) ought to be as extinct as divination of the future by examination of bird’s entrails. Yet it is flourishing.”<sup>47</sup>

How can we explain this paradox? Many reasons have been put forward. They are not mutually exclusive and they may all have an element of truth. What do the patients themselves say? A number of recent studies have addressed this question.

Two medical students and a psychologist from the Southampton University in England joined forces with the director of the Centre for the Study of Alternative Therapies in Southampton to ask patients attending this Centre why they sought such treatment. The Centre offered a range of alternative therapies including acupuncture, manipulation, homeopathy, biofeedback and hypnosis. Almost half of the patients complained of pain, whether in the joints, back, abdomen or head. About 15% of patients complained of allergies and a similar number had vague complaints such as feeling run down. Nearly 85% of people said that failure of the conventional medicine was their reason for attending although most stated that they had a good relationship with their general practitioner who had given them satisfactory conventional treatment. It was simply that conventional medicine had failed to deliver and solve their problems.<sup>48</sup>

Later that year, some medical students together with the professor of child health from the University of Queensland, Australia reported their investigations of families of children with or without asthma. Almost half the families in both groups had consulted an alternative practitioner at some time, with chiropractic followed by homeopathy/naturopathy being the most popular. They found that three-quarters of families were satisfied with both orthodox and alternative medicine, 16.4% with orthodox medicine only, and 2.7% with alternative medicine only. The authors interpreted these results to mean that patients who use alternative medicine are not disgruntled with orthodox medicine.<sup>49</sup>

Several years later, Furnham and Smith from the department of psychology at University College, London compared the backgrounds and beliefs of patients attending a general practitioner and those consulting a homeopath. The two groups did not differ significantly in terms of age, sex, education, marital status, religion or income but those who attended the homeopath were more critical and sceptical about the efficacy of conventional medicine and believed that they had some control over their own health. In

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<sup>47</sup>Anonymous. *British Medical Journal* i: 1-2, 1980

<sup>48</sup>Moore J, Phipps K, Marcer D, Lewith G. Why do people seek treatment by alternative medicine? *British Medical Journal* 290: 28-29, 1985

<sup>49</sup>Donnelly WJ, Spykerboer JE, Thong YH. Are patients who use alternative medicine dissatisfied with orthodox medicine? *Medical Journal of Australia* 142: 539-541, 1985

contrast to the earlier studies cited above, these authors concluded that people seeking homeopathic care tended to have poor experiences with medical practitioners rather than believing that orthodox medicine is in itself bad.<sup>50</sup>

A recent national survey from the USA concluded that use of alternative medicine does not reflect dissatisfaction with conventional medicine. Dr Eisenberg, who we met earlier, together with colleagues from Boston, conducted a national telephone survey who had both seen a doctor and used an alternative medical therapy during the previous year in order to assess patients' perceptions.<sup>51</sup> Seventy nine per cent of people interviewed perceived the combination to being superior to using either one alone, although the majority did not tell their doctor that they were also using an alternative therapy. They said this was either because the doctor did not ask or they did not think it was important for the doctor to know.

So why do people seek alternative medical approaches? The following reasons have been advanced:

- It is difficult in this age of miracles for people to accept that sometimes nothing specific can be done. They want a cure for every ailment.
- There is a growing loss of faith by the public in a purely scientific approach to medicine.
- The public wants not only the proven effectiveness of scientific medicine but also the mysticism of fringe medicine.
- Some patients do not like the impersonal aspects of high technology medicine.
- Some modern doctors tend to depend more and more on scientific medicine at the expense of viewing the patient as a whole person.
- Some doctors lack the human touch in their dealings with patients and may not have enough empathy.
- Some doctors do not communicate effectively with their patients.
- Some doctors rush their patients and do not take enough time to listen to their problems.
- Doctors often fail to fulfil a pastoral role.
- Alternative practitioners are sometimes perceived (perhaps correctly, perhaps incorrectly) as giving more time, taking a greater interest in, and viewing the patient as a whole person.
- Some people cannot make an informed choice about a health-care product

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<sup>50</sup>Furnham A, Smith C. Choosing alternative medicine: a comparison of the beliefs of patients visiting a general practitioner and a homeopath. *Social Science and Medicine* 26: 685-689, 1988

<sup>51</sup>Eisenberg DM, Kessler RC, Van Rompay MI, Kaptchuk TJ, Wilkey SA, Appel S *et al.* Perceptions about complementary therapies relative to conventional therapies among adults who use both: results from a national survey. *Annals of Internal Medicine* 135: 344-351, 2001

- Some people respond to vigorous marketing and extravagant claims <sup>52,53,54</sup>

The reader may have his own view, perhaps from his own experience, as to whether or not any of these reasons are valid. Whatever the reason, whenever a person becomes sick, the promise of cure is beguiling.<sup>55</sup> Remarking that alternative medicine is here to stay, Coulter and Willis believe that the growth in the use of alternative medicine in Western societies reflects general societal change rather than specific reasons related to orthodox medicine. They relate the phenomenon to the growth in the consumer and green movements and to “post-modernism”, that is, as social change including globalisation has accelerated, faith in the ability of science and technology to solve the problems of living has declined.<sup>56</sup>

Just because alternative medicine is enormously popular, that does not necessarily make it right. It is worth remembering the adage attributed to WF Hermans and cited by Renckens at the beginning of a review he wrote on alternative medicine: “The fact that millions of people do not master arithmetic does not prove that two times two is anything else than four”.<sup>57</sup> This theme was taken up by MJ Sergeant who wrote, concerning a series of exchanges in the *Annals of Internal Medicine* over why alternative medicine was so popular:

“I believe that for the future, we as scientists must take the moral high road and defend science in a sea of fantasy and pseudoscience. We should not give in to ‘integrative medicine’ but instead draw a sharp distinction between care that is based on scientific principles and care that is not. I prefer to use the term ‘faux medicine’ for unscientific medicine. It will not be easy, but eventually some people will realize that the alternative to scientific knowledge is ignorance.”<sup>58</sup>

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<sup>52</sup>Lister J. Current controversy on alternative medicine. *New England Journal of Medicine* 309: 1524-1527, 1983

<sup>53</sup>Baum M. Science versus non-science in medicine: fact or fiction? *Journal of the Royal Society of Medicine* 80: 332-333, 1987

<sup>54</sup>Murray RH, Rubel AJ. Physicians and healers - unwitting partners in health care. *New England Journal of Medicine* 326: 61-64, 1992

<sup>55</sup>Beyerstein BL. Alternative medicine and common errors of reasoning. *Academic Medicine* 76: 230-237, 2001

<sup>56</sup>Coulter ID, Willis EM. The rise and rise of complementary and alternative medicine: a sociological perspective. *Medical Journal of Australia* 180: 587-589, 2004

<sup>57</sup>Renckens CN Alternative treatments in reproductive medicine: much ado about nothing. *Human Reproduction* 17: 529-533, 2002

<sup>58</sup>Sergeant MJ. More on alternative medicine. *Annals of Internal Medicine* 132: 675, 2000

### **Doctors versus practitioners of alternative medicine**

Medical practitioners, like non-medical practitioners, include people with a wide range of skills, attributes and interests. Some doctors may take a narrow view or rush their patients, but there are probably many more who are caring, competent practitioners who do their best for their patients. The best doctor is he or she who has the correct blend of the science and the art of medicine. What sets medical practitioners apart from alternative practitioners is the absolute requirement for the provision of proof for the methods they adopt. Drs Marcia Angell and Jerome Kassirer, one-time editors of the prestigious *New England Journal of Medicine* have put it in a nutshell:

“It is time for the scientific community to stop giving alternative medicine a free ride. There cannot be two kinds of medicine - conventional and alternative. There is only medicine that has been adequately tested and medicine that has not, medicine that works and medicine that may or may not work. Once a medicine has been tested rigorously, it no longer matters whether it was considered alternative at the outset. If it is found to be reasonably safe and effective, it will be accepted.<sup>59</sup>

Doctors by and large are not stupid. If something is found to work, they will use it. It no longer is alternative but becomes main-stream. The trick is not to embrace something until it has been proven to work.

In contrast, fringe practitioners have failed to accept the standards of proof that medical science has developed over the past 150 years. When all is said and done, practitioners of alternative procedures and therapies fall into one of three groups:

- They are on to something that orthodox medicine has completely missed. This knowledge needs to be defined, verified and gladly adopted by orthodox medicine.
- They are sincere in their beliefs but are completely misguided. In short, they are ignorant. Such people may provide a benefit by lending a humane, listening ear, nodding sympathetic understanding, and giving a degree of hope. But they may also be dangerous by delaying the implementation of effective treatment.
- They know full well that they are deceiving their patients. Such individuals are charlatans and frauds and need to be exposed.

How can you tell whether a practitioner is orthodox or practises alternative medicine?

- The practitioner may say so explicitly or implicitly. If someone describes himself as an acupuncturist, homeopath or chiropractor, then clearly he or she practises alternative

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<sup>59</sup>Angell M, Kassirer JP. Alternative medicine - the risks of untested and unregulated remedies. *New England Journal of Medicine* 339: 839-841, 1998

medicine. Conversely, someone who puts “physician”, “general practitioner” or “surgeon” on their shingle obviously has an orthodox training.

- You can no longer pay much attention to the title “Doctor”. In times past, anyone with that appellation either had a doctorate from a university, traditionally in divinity, laws, literature, philosophy or science, or had a medical degree, the precise nature of which varied from country to country. About twenty years ago, dentists in Australia, for example, decided to call themselves “doctor” and the veterinarians soon followed suit. Now just about every Tom, Dick and Harry is getting into the act. For example, near me are the consulting rooms of an individual with a degree of bachelor of applied science. This is often a qualification of physiotherapists. He calls himself Dr ----, chiropractor.
- You should look at a practitioner’s qualifications. A list of orthodox medical and scientific qualifications and a few of the more overt alternative “qualifications” can be found in chapter 3. Be cautious though: the qualifications claimed by alternative practitioners may look impressive, not to say breath-taking. For example, one alternative practitioner living near me describes herself as “Dip. R.&T.P., Dip. A.T.S., Cert. P.M., Certs Reiki 1 and 2, Dip. C.H. (N.S.W.) and Australian Institute of Rebirthing trainer (S.A.)”. This is all quite meaningless.
- § Having determined what degrees and diplomas a person has been awarded, you must next look at the quality of the institution that has awarded that qualification. Regrettably, there are now both first-class universities and institutions that are little more than universities in name only. Similarly, you have to try to make an assessment of other bodies that award qualifications. You can rely on someone who has an MD degree from Harvard University or is a member or fellow of the Royal College of Physicians of London. But what about the “Australian Metaphysical Science Association” or the “Gondwana College of Natural Healing” at a house in Adelaide, Australia or similar organisations. You would have to be very naive to give them much credibility.

### **Alternative medicine and the law**

Alternative practitioners are registered in some countries, tolerated in many, and prohibited in others. Nor is there necessarily any consistency within a country in its approach to various forms of alternative medicine. The debates as to whether this or that therapy should be registered or not have been long and largely fruitless. If a minority makes enough noise, it tends to get its way.<sup>60</sup> Registration of alternative therapists is a

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<sup>60</sup>Jarvis WT. Quackery: a national scandal. *Clinical Chemistry* 38: 1574-1586, 1992

two-edged sword for the practitioner.<sup>61</sup> On the one hand registration gives them an aura of legitimacy and is proposed as a way of enhancing communication with the medical profession and ensuring consumer protection.<sup>62</sup> On the other hand, it may (and should) mean that the same standards of proof are applied to alternative therapies and they might suffer legal and financial consequences.<sup>63</sup> If this were to happen, it is likely that oppression would simply drive that alternative practice underground only to re-appear in another guise.

The United Kingdom is perhaps the country that is the most tolerant of alternative practitioners. In fact, in that country there is a curious paradox about the law as applied to orthodox medicine and alternative medicine. This is well exemplified by a statement of the former minister of health, Baroness Trumpington, who declared that “no government is going to ban (alternative medicines and therapies)” although she believed “it is right that medicines should be controlled”.<sup>64</sup> Alternative medical practitioners can more or less say and do what they like but orthodox medical practitioners are tightly regulated! It would be hard to find a better example of double standards! This conundrum seems to have been perpetuated in what has been regarded as a “landmark case” in the United Kingdom examining how a practitioner of alternative medicine should be judged. A fit 32 year old man took a Chinese herbal remedy for lipomas (which can only be dealt with surgically) and died of liver failure. The alternative practitioner was sued. The suit was lost because the judge said that although there must be “regard to the fact that the practitioner is practising his art alongside orthodox medicine and the implications of this fact”, the defendant could not be judged by the standard of orthodox medicine because he did not hold himself out to be such a person.<sup>65</sup> The judge dismissed the suit because the idiosyncratic reaction to Chinese herbs could not have been predicted, completely ignoring the fact that they were totally inappropriate for the original problem. Clearly, water-tight legislation is needed to protect us from such legal convolutions.

The Dutch, on the other hand, may now be going in a better direction and are considering tougher laws on practitioners of complementary medicine. This has followed the death from breast cancer of the actress and comedienne, Sylvia Millecam. The Dutch Healthcare Inspectorate found that during the two years from diagnosis to her death, Ms Millecam was treated by 28 different practitioners and institutions, but she exclusively

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<sup>61</sup>Parker MH. The regulation of complementary health: sacrificing integrity? *Medical Journal of Australia* 179: 316-318, 2003

<sup>62</sup>Mills SY Regulation in complementary and alternative medicine. *British Medical Journal* 322: 158-160, 2004

<sup>63</sup>Dwyer JM. Good medicine and bad medicine: science to promote the convergence of “alternative” and orthodox medicine. *Medical Journal of Australia* 180: 647-648, 2004

<sup>64</sup>The Baroness Trumpington. Alternative medicines and therapies and the DHSS. *Journal of the Royal Society of Medicine* 80: 336-338, 1987

<sup>65</sup>Brahams D. Standard of care for alternative medicine. *Lancet* 356: 1422, 2000

chose alternative treatments such as electro-acupuncture, faith healers, psychic healers, salt therapy and “cell specific cancer treatment” at a Swiss clinic, and was told on a number of occasions by these practitioners that she did not have cancer. The Inspectorate attacked the country’s current “liberal regime” for “not sufficiently guaranteeing the protection of the citizen against malpractice by alternative carers” and “dangerous quackery”.<sup>66</sup> It remains to be seen what the Dutch politicians do.

The Dutch Inspectorate indicated that it has reported six alternative practitioners to the prosecution service and that two of these 6 people were also doctors who may face disciplinary action. This raises the vexed question of what to do with medical practitioners who also practise alternative medicine. The responses vary from country to country and will doubtless change from time to time. For example, several Canadian provinces have recently passed legislation protecting doctors from disciplinary action solely because they offer such therapies. There may be caveats, however. In Ontario, doctors will not be protected if there is evidence that the alternative therapy used poses a greater risk to the patient’s health than does orthodox medicine.<sup>67</sup> This is likely to generate legal arguments about errors of omission rather than sins of commission. Similarly, in the United States, laws vary state by state and their application depends upon the specific clinical scenario in question.<sup>68</sup>

Politicians like Baroness Trumpington who adopt a laissez-faire approach, by and large have abrogated their responsibility to fully inform and educate the public about the efficacy, or lack of it, of various alternative therapies and thus make matters worse. The law to a large extent allows us to abuse our bodies while in good health, ignore good advice when we are ill, and refuse treatment when we do not want it. What we need to do is to get the balance right between freedom of choice and consumer protection from charlatanism and fraud.

Even if the politicians do not make the correct laws concerning these areas of health, the law does have the potential in general terms to restrain charlatanism, fraud and bad practice. Regrettably, it is largely a potential rather than an actuality. I am amazed that alternative practitioners have not been sued out of existence, particularly in that lawyers’ paradise, the United States of America. In the USA, and unfortunately other countries are starting to follow suit, malpractice madness reigns and patients, egged on by their attorneys, sue doctors at the drop of a hat, frequently without reasonable cause. It is a growth industry and insurance premiums for malpractice have sky-rocketed. The costs, of

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<sup>66</sup>Sheldon T. Netherlands top crack down on complementary medicine. *British Medical Journal* 328: 485, 2004

<sup>67</sup>Silverside A. More provinces protecting MDs who practise alternative medicine. *Canadian Medical Association Journal* 166: 367, 2002

<sup>68</sup>Cohen MH, Legal issues in complementary and integrative medicine. A guide for the clinician. *Medical Clinics of North America* 86: 185-196, 2002

course, have been passed back to society through patients' fees.

Yet we hardly hear of malpractice litigation directed against the practitioners of alternative medicine despite the fact that they are a much more fertile field for close scrutiny. In addition to the British suit mentioned earlier, a case was reported in an Adelaide newspaper recently where costs of \$30,000 were awarded against a dentist who inappropriately used an unorthodox diagnostic device then operated on a patient's jaw because she told him she had an abnormal smear test for cancer of her cervix. He lost the case because he undertook procedures inappropriate to his profession as a dentist. Similarly, the Herbalife Company in the USA paid an out-of-court settlement to the widow of one of their salesmen who believed his own misinformation and ignored symptoms of the heart disease which took his life.<sup>36</sup>

Nevertheless, litigation such as these instances seems to be rare. The lawyers do not seem to have noticed the gold-mine at their feet. We can hope that they do discover it soon as this will then test the claims of various alternative therapists. Appearances in court may separate the wheat from the chaff and hopefully rid us of the more perverse and pernicious practices.

At the end of the day, the prime responsibility of members of the medical profession is to ensure that when they are consulted by patients, they provide a high quality, appropriate and worthwhile service. If you wish to opt out of the rigorous world of medicine based upon a scientific view of disease, a logical system of diagnosis and a proven, albeit imperfect, therapeutic strategy, then you do so at your own risk and should do so with your eyes open. You need to remember the old Latin adage which means "buyer beware. This book tries to help you make an informed decision and do just that.

## *Caveat emptor*

Last revision: 2004