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VIEWPOINT

Alternative medicine a cruel hoax—your money and your life?

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This article considers the attractions and dangers of alternative medicine, particularly in the author's native New Zealand. The history of homeopathy is briefly reviewed. Failure to allocate resources to science education, basic research, and the interpersonal aspects of patient care has led to an uninformed, uncritical acceptance of alternative therapies within certain groups. Among the recommendations discussed is greater involvement on the part of the media and the public in matters of medicine and health.

Introduction

Sulphonamides, discovered in 1935, foreshadowed the demise of homoeopathy. Since the second world war, we have seen an enormous revolution in the power and efficiency of pharmaceutical products. The rationing of streptomycin in the postwar years led to the brilliant concept of double blind clinical trials by the Medical Research Council in Great Britain, which eliminated tuberculosis perhaps 20 or 30 years earlier than would otherwise have been the case.[1]

Amazing technological advances in pharmacology foster expectations of a cure in western societies. Alternative therapies are invoked when no instant cure is produced by medical care. There is also a real delay in the development of adequate audit and peer evaluation in this small, still neocolonial country. This is fostered by lack of commitment to scientific education in medicine.[2] These factors, coupled with the intense interest exhibited by the alternative therapist in the patient as a person who wants to sit and talk, have led to the resurgence of various alternative therapies in recent years.

The fundamental difference between orthodox and alternative methods is largely whether one accepts the inheritance of twentieth century scientific principles or whether one wishes, out of personal belief or unsatisfactory previous experiences, to rely solely on the placebo effect.[3] Basic tenets of the scientific principle are the observation of natural phenomena and the testing of hypotheses in order to accurately evaluate the outcome. It is this opportunity to accurately measure which has so revolutionised medicine in the last 30 years. Indeed, the very success of orthodox scientific medicine in eliminating so many infectious diseases has led to an uncritical faith in instant cure.

Michael Baum, head of the clinical research group trial centre, King's College, London (1987), has said: "For the day to day purposes of evaluating scientific claims (in medicine) we still require much painstaking, laborious and, above all, honest, deductive research."[4]

New Zealanders, being distant from the centres of expansive and energetic scientific thought, are less prepared on a total per head basis to invest in research and development in medicine.

Dangers of alternative medicine

The real danger of alternative medicine is that it exploits the credibility of those often less fortunately endowed. Practitioners of alternative medicine, unfettered by regulatory standards or any established code of ethics, take advantage of minors and the credulous. Ethnic minorities, immigrants and younger people are among those who may not understand methods of access to orthodox medicine and are particularly vulnerable.

However the real dangers of alternative therapies such as naturopathy and homoeopathy are that they neglect important symptoms, denying patients effective therapy. Practitioners of alternative therapies usually claim that scientific investigators, such as physiologists, biochemists, psychiatrists and physicians, have too little faith in mystical powers, magic and imagination.[5,6]

A disturbing study by J. Leibrich, *In Search of Well Being—Exploratory Research into Complementary Therapies*,[7] issued as a Department of Health special report, shows a major lack of critical scientific evaluation. Such quackery as iridology and colour therapy is described as "complementary therapy." There are many unscientific statements in this document indicating

that without a knowledge of basic mainstream twentieth century science and a degree of healthy scepticism, even official sources can be subverted by nonscientific concepts.

A United Kingdom study by S.J. Fulder and R.E. Munro[8] indicated that there were 12 alternative medicine practitioners per 100,000 population of whom only 50% had secondary or tertiary education. Many had no qualifications and advantage was taken of young women who averaged 9.7 visits for a total cost of NZ$257. A programme by the BBC in 1981 looked sympathetically at alternative concepts in health and medical care. J. Lloyd Fraser's *The Medicine Men*[9] listed disorders treatable by homoeopathy and naturopathy as being colds, chest infections, dyspepsia, diarrhoea and vomiting, sprains and burns, backaches, insomnia, menstrual complaints, acne and eczema. The Consumers' Association, organised by nonmedical lay people in Great Britain, found that although most herbal remedies act as placebos and do very little harm, some substances are toxic and especially dangerous when taken with orthodox medicine to treat serious illnesses—thus providing an area of conflict, to the detriment of ordinary citizens: "The widespread unsupervised sale of herbal medicines leaves consumers largely unprotected, particularly from unlicensed remedies whose standard may vary. Promotion in shops often suggests health benefit, but the Medicines Act does not cover unlicensed remedies which lack adequate scrutiny."[10]

Homoeopathy—an archaic belief system

In general, the New Zealand school system lacks scepticism and tends to suppress curiosity and critical faculties. This country could thus be a fertile ground for quackery.[11]

In the last seven years, only two controlled trials of homoeopathy in the English literature have been found on Medline search. D.T. Reilly and colleagues[12] provoked a spate of correspondence because of their erroneous conclusions. Their trial was described as the first ever double blind control of one placebo versus another for hayfever. Only 67% of subjects remained at the end of the five week trial, an extremely low percentage for any acceptable trial. After the treatment fluid had been diluted 30 times, no detectable material remained, and the authors concluded that "vital forces" had entered the solution from succussion!

Diagnosis must precede treatment and it is usually based on acceptable scientific studies with consensus views on the physiological and pathological principles underlying health and disease. Because diseases are beginning to be detected at the molecular biological level, some doctors now find it increasingly difficult to keep pace with scientific discoveries.

The medical profession is now attempting to prevent many of the well known diseases by measuring the earliest biochemical abnormalities in the blood before structural changes take place. Some doctors attempt to reverse these by attention to holistic health. Much of the struggle in the health sciences is uphill because of the hostility of the wider environment. Media exploitation and the increasing peddling of junk foods are examples of financial gain being made at the expense of good nutrition. This tempts some medical practitioners to dabble in unscientific practices in homoeopathy, using electrical machines and other forms of quackery.[13,14]

Originally, homoeopathy was the concept of a German doctor, Samuel Hahnemann (1755-1843), who, in 1796, reacted to the excessive blood letting, purgation, induced vomiting, metallic poisoning and the nonscientific approach of the then medical profession. He conceived the idea of placebo treatment, suggesting that "like cures like" and went on to dilute substances (thought to be responsible for symptoms) in such minute dilutions that no molecules remained. Thus by preventing the excesses of organised medicine of those days, he provided an alternative form of treatment.

Between 1821-43 Dr. Hahnemann became successful enough to add succussion and "dynamism" under the "umbrella" of homoeopathy; this gave way to the potency theory of "vitalism" (or the spirit of the person) entering the diluted solutions to give cures. During the cholera epidemic of the 1850s, the death rate at the London Homoeopathic Hospital was 18% whereas in many of the London teaching hospitals, where blood letting and purgation were practised, the death rate was two or three times greater. With modern, scientific knowledge, however, cholera can be successfully treated (in India, for instance) with few deaths, if any, occurring.

Today, homoeopathy, with modified Hahnemann principles, survives in the less scientific communities.[15,16] It appears to be unduly prevalent in New Zealand where the organisation of subsidies for adequate primary care is deficient. Often, patients complain of not being able to sit and talk to someone sympathetic. Taxpayers' money is no longer used to repay the acquisition and practice of the skills of adequate observing, listening and touching—which skills now seem to be the preserve of practitioners of holistic medicine.

Last summer was enlivened by a homoeopathy scandal in France when it was revealed that a gov-

ernment sponsored laboratory employed two technicians from a firm which manufactured homoeopathic remedies. There are two French commercial companies which produce "mother liquor"—substances which are diluted for homoeopathy.

The results were reported by J. Benveniste and colleagues[17] in *Nature*, suggesting an overthrow of such elementary physical principles as the Law of Mass Action. An investigatory team reported on 28 July 1988 that the experiments were "a delusion."[18] This would seem to be a mortal blow to the scientific pretensions of homoeopathy.

Comment

How then are organisations such as the New Zealand Committee for the Scientific Investigation of Claims of the Paranormal able to provide some assistance to consumers? They and members of the medical profession could promulgate a review similar to that in *Which?* (the consumers' magazine in Great Britain).

The New Zealand Commerce Act 1987 provides for prosecution against fraudulent advertisers and places the onus on those who offer herbal remedies, homoeopathic and other products of doubtful efficacy,[19] to demonstrate in a court of law scientific facts to support their claims. In many USA states such advertisers have their credentials checked against certificates they may hold[20] and lists of names are published annually.

The Beattie commission has suggested that science instruction in the school system be substantially upgraded, enabling those leaving at 18 or 19 years to have a more critical understanding of modern science.[21,22]

To improve provision for clinical trials it will be necessary and certainly cost effective for the University Grants Committee to allocate more funds for the employment of more clinical pharmacologists in the New Zealand medical schools; their number is scandalously low when compared with countries of similar size such as those in Scandinavia.

In order that the medical profession can gain wider public support for an urgent increase in funding for research, more of the lay public must be involved in medical research organisations, audit committees and area health boards. That way, claims and counter claims from alternative medicine practitioners may be fully evaluated in the public setting.[23,24]

To expose fraudulent practices, the media should have qualified medical reporters. Editors should ascertain that the fundamental principles of biomedicine are fully understood by their staff. Good investigative journalism requires an informed view of all aspects of any argument. With more funds allocated for the appropriate investigation of charlatanism, prosecution under law would follow.

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