

Chapter 14

MISCELLANEOUS THERAPIES

There are, of course, countless forms of alternative medicine other than those discussed earlier in this book. It is impossible to cover all of them but some of the more common or the more bizarre are recounted in this chapter. Many of these “therapies” have not been formally tested in a scientific sense, mostly, I suspect because they seem so absurd that no-one wants to waste their time. For those that have been investigated, most have been found to be worthless.

Anthroposophical medicine

This system was devised by an Austrian, Rudolf Steiner (1861-1925). The name “anthroposophical” is derived from the Greek words for “man” and “wisdom”. He thought that we are made up of physical body, etheric body (formative forces), astral body (emotions and drives, or the soul) and ego (self-consciousness). Disease is supposed to be due to an imbalance in these various components. Anthroposophical doctors (of whom there are a few in Europe) prescribe herbal or homeopathic remedies, hydrotherapy, special diets, artistic therapies such as music, painting, drawing and speaking, as well as therapeutic eurhythmies (special exercises). Thus, anthroposophical practitioners are rather like naturopaths except that they are supposed to be medically trained.

Applied kinesiology

This technique was introduced by George Goodheart, a chiropractor in Detroit, USA in the 1960's who claimed to have stumbled across some new principles. He reckoned that by testing the relative strength and tone of muscles around various joints such as the elbow or knee, he could tell the state of bodily organs such as the liver, kidneys and intestines as well as such things as nutritional needs and allergies. Allergens are “tested” by holding a bottle containing an allergen in one hand then looking for a decrease in muscle power in the other arm. Massage at various points is then used to remedy the problem although techniques such as diet or homeopathic or herbal remedies may be invoked instead.

Professor JS Garrow of the department of human nutrition at St. Bartholomew's Hospital in London tested 20 patients by this method.¹ Patients were tested knowingly with milk, cheese, candida, maize, yeast, ethanol and so on. They were then re-tested not knowing what they were being tested against. There was no correlation at all between the

¹Garrow JS. Kinesiology and food allergy. *British Medical Journal* 296: 1573-1574, 1988

two tests, indicating that this technique is completely unreproducible, hence unreliable.

Aromatherapy

Aromatherapy is the massage of the body or face using essential oils extracted from plants. Essences are aromatic (volatile) oils that have their own characteristic odour. Examples are lavender oil and eucalyptus oil, frankincense and myrrh, and essence of lemon or orange. There have now been two studies of the value or otherwise of aromatherapy.

Investigators from Marie Curie Cancer Care in London, England studied 103 patients who were in the palliative care unit, ie they were dying from cancer². They were randomly divided into two groups. The first was given massage with what was called a "carrier oil". The second group were given massage with the carrier oil laced with Roman chamomile essential oil. The patients who were given aromatherapy had less anxiety and felt better. Of course, it did not make them live longer.

Rather more interesting was a study conducted by Dr Hay and colleagues from the department of dermatology at the Aberdeen Royal Infirmary in Scotland who looked at 86 patients with alopecia areata.³ Alopecia areata is an asymmetrical, disfiguring loss of hair on the scalp of unknown cause. The patients were randomly divided into two groups. The treatment group massaged a mixture of carrier oil (jojoba and grapeseed) plus essential oils (thyme, rosemary, lavender and cedarwood) into their scalp daily for 7 months. The control group used only the carrier oil. Forty-four percent of patients in the treatment group showed improvement compared with only 15% of the control group. However, only 5 patients out of 43 in the treatment group had very good or excellent improvement in the baldness. I rather think the authors overstated the case in the claim implicit in the title of their paper.

One can perhaps conclude that if you like aromatherapy, there is probably no harm in using it but do not expect too much from it. The more important question is whether it is worth the money.

Astrology

Astrologers assert that your health is dependent upon the positions of the sun, moon and planets and the twelve zodiac signs. You are supposed to have a unique pattern that depends upon the positions of these objects at your birth. These positions are represented by a horoscope which is really a map of the solar system at the time of your birth. Using

²Wilkinson S, Aldridge J, Salmon I, Cain E, Wilson B. An evaluation of aromatherapy massage in palliative care. *Palliative Medicine* 13: 409-417, 1999

³Hay IC, Jamieson M, Ormerod AD. Randomized trial of aromatherapy: successful treatment for alopecia areata. *Archives of Dermatology* 134: 1349-1352, 1998

this device and sundry other information, an astrologer claims to be able to gauge your prospects for good health or your proneness to illness. For example, if your sun sign is Cancer, you are supposed to be more likely to have abdominal disorders whereas if you are a Leo, your heart is your problem. So, knowing all this, you can take remedial action to preserve your health!

On the other hand, if you believe this stuff, you might be in trouble. An interesting study was undertaken by Professor David Phillips from the department of sociology and other colleagues from the University of California at San Diego. They examined the deaths of 28,169 adult Chinese-Americans and 412,632 randomly selected, matched controls coded "white" on the death certificates. The interactions between Chinese medicine and astrology are complex, but if a person contracts a disease which tradition associates with the phase of their birth-year, then that is considered ill-fated. For example, a person born during an "earth year" (one in which the last digit is 8 or 9) is considered more prone to tumours. The investigators found that Chinese-Americans with a combination of disease and birth-year that is considered ill-fated died 1.3-4.9 years earlier than did white people with the same combinations. Moreover, the more strongly a group was attached to Chinese traditions, the more years of life were lost. For example, the average age of death from lung diseases in Chinese-Americans born in the metal year was 66.89 years compared with 71.88 years for those born in a non-metal year. Thus, there was difference of 4.99 years. On the other hand, for white people with the same disease-year of birth combination, the difference was only 0.07 years. The authors concluded that these effects were at least in part due to psychological reactions with affected people feeling helpless and hopeless.⁴

Another study from the University of Graz in Austria looked at the effect of the phase of the moon on outcome in nearly 15,000 patients who underwent surgery during a general anaesthetic⁵. There were no significant differences in mortality rates within 30 days of operation between patients operated on during a waxing moon compared with a waning moon nor did having an operation during a full moon have any beneficial or deleterious effects.

Autogenic therapy

This form of treatment was invented by a German, Johannes Schultz, in the 1930's. It is a mixture of progressive relaxation, self-hypnosis and meditation. The patient is taught to relax then concentrate on a part of the body such as the right arm with thought that "my right arm is heavy". This is then extended to other limbs. Subsequent exercises suggest warmth in the limbs, slowing of the heart beat, regularisation of breathing, warming of the

⁴Phillips DP, Ruth TE, Wagner LM. Psychology and survival. *The Lancet* 342: 1142-1145, 1993

⁵Smolle J, Prause G, Kerl H. A double-blind, controlled clinical trial of homeopathy and an analysis of lunar phases and postoperative outcome. *Archives of Dermatology* 134: 1368-1370, 1998

abdomen, and cooling of the forehead. This process is supposed to unleash the innate healing power of the body to effect a cure.

Ayurveda

This system of medicine has its origins in India from before the time of Christ. “Ayur” means “life” while “veda” indicates “knowledge” or “science”. Thus, ayurveda is said to be the science of life. The *Samhita*, an encyclopaedia of ayurvedic medicine was written in Varanasi about 500 BC. Ayurvedic philosophy holds that there are three energies - creative, resistive and unifying, that are modified by spiritual, mental and physical processes. The human body is supposed to be made of five “elements” (similar to the humours of the ancient Greeks) and seven tissues. A person is believed to be healthy when these are all “in balance”. Treatment of disease involves fasting, diets, baths, enemas, blood letting, applications to the skin, yoga and drugs. Ayurvedic herbal medicines are briefly discussed on in the chapter on herbs. *Siddha medicine* is a variant that places especial emphasis on minerals as therapeutic agents. There are many ayurvedic practitioners, called *hakims*, in India who work alongside orthodox medical practitioners. There is no specific scientific evidence verifying ayurvedic medicine. Some of the problems associated with its usage have been reviewed by doctors from the department of pharmacology at the Seth GS Medical College in Bombay, India.⁶

Bates eyesight training

William Bates (1881-1931), an American ophthalmologist wrote a book in 1919 called *Better eyesight without glasses*. His method includes a number of exercises including

- palming - covering your eyes with the palms of your hands two or three times a day for ten minutes at a time.
- shifting - whenever you look at an object, do not stare at it but constantly shift from side-to-side and up-and-down.
- swinging - stand in front of a window and look at an object outside, swaying from left to right 100 times, blinking as you go.
- splashing - splash the eyes with water 20 times every morning and evening.
- blinking - blink once or twice every ten seconds.
- focussing - alternate looking at a pencil close up to you and something in the far distance.
- colouring - remember or imagine colours while palming.

Judging by the number of people who wear glasses, this technique does not seem to have

⁶Thatte UM, Rege NN, Phatak SD, Dahanukar SA. The flip side of Ayurveda. *Journal of Postgraduate Medicine* 39: 179-182, 182a-182b, 1993

caught on. Could this be because it does not work?

Biochemics

This is a system of treatment, also called **tissue salts therapy**, devised by Wilhelm Schüssler in Germany in the mid-nineteenth century. He believed that all illness is due to disturbances in the balance of 12 inorganic salts. “Biochemic tissue salts”, which are often produced homeopathically, and can be bought in some health food stores, are said to restore any imbalance. For example, a combination of iron phosphate, potassium sulphate and magnesium phosphate are said to cure muscular aches and pains and fibrositis. Needless to say, this is a totally simplistic approach not based upon any evidence.

Biorhythms

It is quite true that we all have a daily rhythm that influences how we feel and when we sleep. Certain hormone levels in the blood vary in a predictable fashion according to where we are in our 24-hour, sometimes called circadian, rhythm. Jet-lag is due to a disturbance in our circadian rhythm when we fly half-way around the world. It is also true that a woman’s hormones vary during her menstrual cycle. However, there is no evidence whatever to support the idea of Wilhelm Fliess, a contemporary of Sigmund Freud, that we all have a physical cycle of 23 days, an emotional cycle of 28 days and an intellectual cycle of 33 days.

You can buy “biorhythm charts”. Proponents of this idea reckon that by knowing your biorhythm you can predict critical days that might predispose to illness or an accident and you can take care accordingly.

Buteyko breathing

Advocates of Buteyko breathing claim that it is beneficial in patients with asthma. The technique involves training in a series of exercises in which the patients reduce both the depth and frequency of breathing. Dr Bowler, a chest physician from the Mater Adult Hospital in Brisbane, Australia and his colleagues undertook a controlled trial in 39 asthmatics.⁷ Although there was no change in their ability to blow air forcefully, those who used Buteyko breathing needed less medications and had a trend towards a better quality of life.

⁷Bowler SD, Green A, Charles CA. Buteyko breathing techniques in asthma: blinded randomised controlled trial. *Medical Journal of Australia* 169: 575-578, 1998

Candida

Candida albicans is a particular form of fungus, a yeast, that we all have living in our gastro-intestinal tract. When present in small numbers, it does not cause any trouble. Sometimes, however, numbers increase and disease results. The most common manifestation is in the vagina where it causes a discharge called thrush. In people whose defences are impaired, it may multiply and cause little white plaques on the lining of the mouth or oesophagus (gullet) and sometimes it causes a skin rash. The most serious complication is when it gets into the blood-stream and causes lesions in organs such as the liver. It so happens that I know a lot about this organism as I see it in my daily work, both growing in the laboratory and infecting patients, especially those who have AIDS or leukaemia or other forms of cancer.

In the 1980's, a condition called "candidiasis hypersensitivity syndrome" or the "yeast connection" was popularised. Indeed, by 1990 a book called *The yeast connection* had sold close to one million copies. According to this hypothesis, overgrowth of *C. albicans* on the mucous membranes is supposed to produce a generalised allergic or toxic response with all sorts of symptoms such as premenstrual tension, heartburn, constipation, diarrhoea, abdominal bloating, depression, anxiety, irritability, fatigue, loss of concentration, headache, nasal congestion and so on. There is no evidence whatever for the existence of this syndrome nor is there any diagnostic test. Consequently, it is beloved of naturopaths who diagnose with gay abandon patients suffering from any symptom as having "candida" and advise patients to take long-term antifungal treatments with increasing doses until the symptoms are relieved. Dr William Dismukes and colleagues from the Birmingham School of Medicine at the University of Alabama in the United States decided to look into this question. They conducted a randomised, double-blind, cross-over trial in 42 women who had candida vaginitis (thrush) and had features attributable to chronic candidiasis syndrome. Over a 32 week period, these women were given either nystatin (an antifungal agent) or a placebo orally or vaginally.

The investigators reported their findings in a paper⁸ entitled "A randomized, double-blind trial of nystatin therapy for the candidiasis hypersensitivity syndrome". As one might expect, the treatments that included nystatin were more effective in relieving vaginal symptoms. Systemic symptoms were reduced in all groups but nystatin was no more effective than placebo (Figure 1). The authors concluded that antifungal treatment did not help and such treatment is not warranted. What they did not say, but is almost certainly true, is that this was because the syndrome does not exist. The American Academy of Allergy and Immunology and the Infectious Diseases Society of America do not believe

⁸Dismukes WE, Wade JS, Lee JY, Dockery BK, Hain JH. *New England Journal of Medicine* 323:1717-1723, 1990

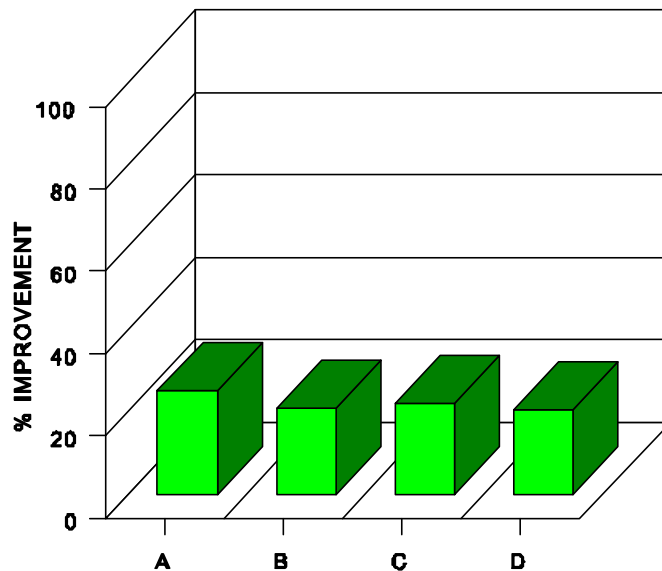


Figure 1. Percentage improvement in generalized symptoms in women in various treatment groups. A = oral + vaginal nystatin, B = oral nystatin + vaginal placebo, C = oral placebo + vaginal nystatin, D = oral placebo + vaginal placebo.

that it does.⁹

Chelation therapy

This procedure was proposed for the treatment of hardening of the arteries (atherosclerosis) in 1955 in a medical journal. The theory was that injection of a substance called ethylenediamine tetra-acetic acid (EDTA) would leach calcium out of the atherosclerotic lesions in the arteries. Treatment is given by infusion into the veins of a solution containing this substance on some twenty occasions. Consequently, it is a treatment usually administered by medical practitioners, albeit those on the fringe of medicine.

Some 500,000 Americans have received this therapy and it is heavily promoted by the “American Board of Chelation Therapy” and the American Holistic Medical Association. On the other hand, the United States Department of Health and Human Services and the American College of Cardiology have put out statements condemning its use.

⁹Bennett JE. Searching for the yeast connection. *New England Journal of Medicine* 323: 1766-1767, 1990

The literature on this subject has been reviewed recently by Drs Michael Grier and David Meyers from the University of Nebraska. There are a vast number of single case reports and uncontrolled series of patients. There has only been one randomised controlled trial of more than ten patients and it found no significant effects for EDTA. Grier and Meyers therefore concluded that “EDTA chelation therapy should not be used in clinical practice to treat atherosclerosis”.¹⁰

Christian science

Christian science is neither Christian nor scientific. It was founded by Mary Baker Eddy (1821-1910), the name Eddy being derived from the last of her three husbands, all of whom died. In 1866 in Massachusetts, USA she had a severe head injury and claimed to recover almost instantly after reading Matthew 9: 1-8. In 1875, she published her book, *Science and health with a key to the scriptures*, much of which was plagiarised from other authors, especially one Phineas P Quimby, a spiritual healer.

Christian science is a pantheistic religion which denies the existence of physical matter, sin, sickness and death. God is impersonal and Everything. Nothing non-spiritual exists except in one's thoughts. There is no such thing as hell. Jesus Christ was an Example, not the Son of God, did not die on the Cross and rose as a spirit. Mary Baker Eddy claimed that she revived the lost ministry of healing as Jesus did. Christian science practitioners seek to convince those who are ill that they are not really sick. Disease is merely a delusion of the mind, so if you deny the reality of sickness you will be healed. By this tortuous logic, people die if they swallow strychnine, not because it is poisonous, but they believe it to be so.

If Christian Science delivers what it claims, then Christian Scientists ought to live longer. The evidence is that they do not. WF Simpson from Emporia State University in Kansas looked into the matter. He compared the death rates of people who had received their college education at Principia College in Illinois, a liberal arts college for Christian Scientists, with those who had attended the College of Liberal Arts and Sciences at the University of Kansas in Lawrence. Students who graduated between 1934 and 1983 were followed up in 1987. The death rate was higher in Christian Scientists.¹¹

Incredibly, Christian Science is a recognised system of health care in the United States and taxpayers can claim money paid to Christian Science healers as medical expenses.¹² Laughable as this might seem, there are sometimes tragic consequences. In the decade to

¹⁰Grier MT, Meyers DG. So much writing, so little science: a review of 37 years of literature on edetate sodium chelation therapy. *Annals of Pharmacotherapy* 12: 1505-1509, 1993

¹¹Simpson WF. Comparative longevity in a college cohort of Christian Scientists. *Journal of the American Medical Association* 262: 1657-1658, 1989

¹²Swan R. Faith healing, christian science and the medical care of children. *New England Journal of Medicine* 309: 1639-1641, 1983

1990, there were 21 convictions for manslaughter in Massachusetts of Christian Scientists who had let their children die rather than call a doctor.¹³

Colour therapy

Different colours are said to affect the functioning of certain body organs. For example, if you are bathed in blue light, it has been claimed that the blood pressure falls transiently whereas red light makes it go up. Colour therapists say that they can tell what colour a person is deficient in. Colour is then administered in various ways including massaging the skin with coloured, salt-containing bags that have been “charged up” by placing them in the sun, by altering the consumption of variously coloured vegetables, by drinking water that has been placed in a coloured glass and exposed to sunlight, or by meditating on different colours. Practitioners of this cult simply prey upon the gullible.

Copper bracelets

Copper bracelets are often worn by patients, especially those with arthritis, in the belief that this will reduce pain. There has been little scientific study of the subject but one study undertaken a number of years ago suggested that copper is slowly worn away and may penetrate the skin.¹⁴ Whether or not this has any real therapeutic value remains to be determined. It is interesting that another heavy metal, gold, is sometimes used by rheumatologists to treat rheumatoid arthritis, so perhaps the subject bears further looking into.

Crystal therapy and gem essence therapy

Baron Charles von Reichenbach (1788-1869) said that he had discovered energy in crystals which he called “odic force”. Crystal healers claim that they are able to tap the energies of the universe using crystals which act as a focus for healing energy. Most crystal healers use quartz for physical healing, rose quartz for emotional healing, and amethyst for spiritual healing. The crystals are often placed on diseased body parts or on acupuncture points.

A variation on this theme is gem essence therapy. Gem stones are immersed in pure water and left in the Californian sunshine. The sun’s energy is said to percolate through the

¹³Skolnick A. Religious exemptions to child neglect laws still being passed despite convictions of parents. *Journal of the American Medical Association* 264: 1226-1233, 1990. Christian scientists claim healing efficacy equal if not superior to that of medicine. *Journal of the American Medical Association* 264: 1379-1381, 1990

¹⁴Walker WR, Keats DM. An investigation of the therapeutic value of the ‘copper bracelet’-dermal assimilation of copper in arthritic/rheumatoid conditions. *Agents and Actions* 6: 454-459, 1976

stones into water taking the gem's vibrations with it. Bottles of these "essences" are supposed to relieve emotional and mental problems. Believe this if you will.

Energy

When you or I say that we are lacking in energy, we usually mean that we are feeling tired and lethargic. However, this is not what is generally meant by practitioners of alternative medicine when they use the term. Rather, they are talking about a vital "life force" or energy that transcends the normal physical and chemical processes of the body. The precise name that they use to describe this energy varies from one alternative tradition to another. Thus, acupuncturists call it *chi* or *qi* and believe that energy circulates through body in channels or meridians. Proponents of ayurvedic medicine and yoga call this life force *prana* and believe that energy becomes concentrated at certain points called *chakras*. Homeopaths label it *vis vitalis* while naturopaths invoke the *vis medicatrix naturae* or "healing power of nature". Similarly, chiropractors manipulate the "innate" or "universal intelligence" while spiritualists and psychic healers examine the *psi* or "auric powers". Even hypnotists used to talk about "animal magnetism".

Practitioners of alternative medicine say that when this energy is disturbed in one way or another, we become ill. Thus disease is said to be due to a blockage in the flow of energy around the body or an imbalance in the distribution of energy. Everything is out of harmony. They claim that by their various interventions they are able to restore harmony and the flow of energy and that this will in turn allow nature to put things right.

It needs to be said that there is no scientific evidence to support the existence of this energy. Nor are there any objective ways of measuring it or examining the effects of various treatments on it. It is really a philosophical concept rather than a scientific fact. This does not say that it does not exist but you need to know that those who proclaim it do not know any more about it than do you or I. It is probably just wishful thinking.

Exorcism

Exorcism is the expulsion of demons, evil spirits and ghosts from individuals, animals, places or objects that are either possessed or oppressed by them. Belief in demon possession is widespread in many cultures and has been long-standing for many centuries. The ancient Egyptians trephined skulls to let demons loose. The New Testament records several instances of Jesus casting out demons. (Matthew 8:16; 8:28-32; 9:32-34; 12:22-23; Luke 4:33-36). Joan of Arc was burnt at the stake because she heard voices. Witches were hanged in Salem, Massachusetts.

Exorcism has been practised in many ways. Spiritualists, witch doctors, medicine men, shamans, sorcerers and priests of various primitive religions have used magical rites and incantations, séances, charms and amulets, sacrificial offerings and flagellation

(beating) to drive out demons. Christian exorcism has involved three steps - a confession of faith in Christ, a confession of sin, and a renunciation of Satan with a command for him to depart.

However, there are plenty of sceptics. Dr William Sargant, a consultant psychiatrist at St Thomas's Hospital in London, studied the manifestations of spirit possession in many countries and came to the conclusion that possession is almost certainly an hysterical phenomenon occurring especially in overwrought people. Moreover, modern drugs may work where exorcism fails. Drs Hale and Pinninta have recently described the case of a young Hindu Indian man living in Britain in whom ghost possession forced him to indulge in criminal behaviour. Attempts at exorcism by a Hindu priest, a Moslem peer and a Christian minister all failed. A "western" diagnosis of paranoid schizophrenia was then made and he was cured with tranquillising drugs.¹⁵

When all is said and done, there are only two possibilities. Either demons and ghosts exist or they do not. Ideas change. Perhaps the classic example of this is epilepsy which for centuries was thought to be due to demon possession but is now recognised as an organic disease of the brain associated with abnormal electrical activity. Ghost disorders and trance states are now officially classified by western medicine as psychiatric disorders.¹⁶ Further, if evil spirits and their ilk do exist, then possession may or may not be the cause of a problem and the challenge in an individual patient is to determine which is the case. This point was underlined by Dr Coggan, former Anglican archbishop of Canterbury, who said that if exorcism is performed, it should only be done with the collaboration of the forces of medicine.¹⁷ In view of the disasters that have happened from time to time when this has not been the case in which people have been murdered or accidentally died, this is sage advice.

Feldenkrais technique

This is a series of postural and body movement exercises, often performed while lying down that is supposed to "realign body segments to achieve increased clarity, ease and economy of movement".¹⁸ They were described by Moshe Feldenkrais, a Russian-born Israeli engineer. The methods used are rather similar to those used in the Alexander technique (see the chapter on meditation and relaxation).

Tenants in a retirement village in the United States were divided into several groups.

¹⁵Hale AS, Pinninti NR. Exorcism-resistant ghost possession treated with clopenthixol. *British Journal of Psychiatry* 165: 386-388, 1994

¹⁶Jadhav S. The ghostbusters of psychiatry. *The Lancet* 345: 808-810, 1995

¹⁷Lister J. By the London post - the dangers of exorcism. *New England Journal of Medicine* 292: 1392-1393, 1975

¹⁸Lake B. Acute back pain: treatment by the application of Feldenkrais principles. *Australian Family Physician* 14: 1175-1178, 1985

One was given a six-week programme of Feldenkrais exercises, another was given conventional exercises, and the third was not given exercises at all. There were no differences among the groups in any measurements including weight, blood pressure, heart rate, balance, flexibility, morale, self-perceived health status or level of performance of the activities of daily living.¹⁹

Hydrotherapy

“Taking the waters” has been regarded as a first-class way of ensuring or restoring good health for centuries. The ancient Greeks and Romans founded baths at places where the waters of local springs were reputed to have health-giving properties. These waters could be either bathed in, especially if heated, or drunk. Examples of the former are the old Roman baths at Bath while the latter is exemplified by the waters of Tunbridge Wells, both in England. Other places include the legendary Spa in Belgium which has given its name to the institution of spas. Hydrotherapy establishments were popularised in the nineteenth century by Priessnitz in Bohemia and Kneipp in Austria.

A variation on the theme is thalassotherapy - hot and cold baths of sea-water. This idea was taken to its extreme by the Finns who invented sauna baths; bathers sit in a moist heated room then rush outside to roll in snow or swim in icy water. Further variations are Russian mud baths and Turkish baths. Spas were fashionable in Britain until the outbreak of World War I when they were decreed to be insanitary and of no proven therapeutic value. That last statement still stands.

Immunoaugmentative therapy

The Burton method

This is an unproved cancer treatment that was offered to cancer patients by Lawrence Burton PhD, an American zoologist in Freeport in the Bahamas. He established his facility there after failing to gain approval from the United States Food and Drug Administration. Initially, the patient's serum is tested for certain “immune deficiencies” then they are injected with products derived from cancer tissue and blood from patients with cancer or from healthy individuals. Patients were charged \$US10,000 for each cycle of therapy. Not only are these interventions worthless for treating cancer, but they are terribly dangerous as viruses such as hepatitis B and C and the HIV, the AIDS virus, may be transmitted to a patient receiving injections. In 1985, the Bahamian authorities ordered the closing down of the clinic so Dr Burton left for Canada.²⁰

¹⁹Gutman GM, Herbert CP, Brown SR. Feldenkrais versus conventional exercises for the elderly. *Journal of Gerontology* 32: 562-572, 1977

²⁰Curt GA, Katterhagen G, Mahaney FX. Immunoaugmentative therapy. A primer on the perils of

The Livingston-Wheeler method

Dr Livingston-Wheeler at the Livingstone-Wheeler Medical Clinic in San Diego, California claims that all cancer is due to an organism that she calls *Progenitor cryptocides*. No-one else has ever seen this organism. She treats patients by giving them injections of BCG (which is a vaccine against tuberculosis and has been used to stimulate the immune system in cancers, especially melanoma), and an “autogenous immune-enhancing vaccine”, the nature of which is obscure. In addition, patients go on a strict vegetarian diet, most of it raw, and have coffee enemas.

Dr Barrie Cassileth and colleagues from the University of Pennsylvania in Philadelphia, USA followed 78 patients with metastatic (widespread) cancer who attended this clinic and compared their course with 78 exactly matched patients who were getting treated in an academic cancer centre and received only conventional treatment. There was no difference in survival between the two groups, with half the patients in both arms of the study being dead at 15 months. Furthermore, the quality of life was better in patients who did *not* attend the Livingston-Wheeler Clinic.²¹

Kirlian photography

This is a form of photography which it is claimed can demonstrate the inner structure of opaque objects. Further, it is said to be able to detect an aura around a living person, particularly their fingers, and that this aura may change with the emotions. This technique was expounded by a Russian electrician, Semyon Kirlian, in the 1950's. Subjects are photographed while being “illuminated” with alternating currents of high frequency. I do not know of any evidence that it works. It is probably an artifact in film due to static discharges from the body.²² In any case, modern medical science is well able to see the internal structure of the human body using such techniques as standard radiology, computerised tomography, nuclear medicine, and magnetic resonance imaging.

Lifestyle changes

If you have or are prone to developing hardening of the arteries, will changing your lifestyle improve your outlook? Dr Dean Ornish and colleagues from a number of academic institutions, mostly in California in the United States tried to find out. They took

unproved treatment. *Journal of the American Medical Association* 255: 505-507, 1986

²¹Cassileth BR, Lusk EJ, Guerry D *et al.* Survival and quality of life among patients receiving unproven as compared with conventional cancer therapy. *New England Journal of Medicine* 324: 1180-1185, 1991

²²Greyson ND. “Kirlian photography” film artifacts. *Journal of the Canadian Radiological Association* 40: 331, 1989

48 patients who had atherosclerosis of their coronary arteries and randomly divided them into two groups. One had standard therapy whereas the other had a combination of a low-fat vegetarian diet, training in stress management, and moderate exercise. One year later, all the patients had their coronary arteries re-assessed by a special X-ray technique called quantitative coronary angiography.

They reported their findings in a paper²³ called “Can lifestyle changes reverse coronary heart disease?” They found that the narrowing of the arteries improved by 2.2% in the group that adopted lifestyle changes but deteriorated by 3.4% in the control group. They concluded that comprehensive life-style changes may be able to improve even severe coronary heart disease after only one year without the use of drugs to lower fat levels in the blood.

Massage

There are many forms of massage. Some have already been discussed in the chapter 4 (acupuncture) and chapter 13 (osteopathy and chiropractic).

- *Do-in* is a form of acupressure in which a person massages, rubs or pounds some part of his or her body.
- *Rolfing* is a form of deep massage developed by an American, Ida Rolf, during the early and middle parts of the twentieth century. She claimed that poor posture encourages connective tissues to grow in an abnormal fashion to become thick and fibrous. These bands of tissue (the existence of which has not been proven) are then said to be broken up by massage which may be rather painful.
- *Metamorphic therapy*. This improbable technique, also called *prenatal therapy*, is based on reflexology and was invented in the 1960's by Robert St. John. According to this extraordinary theory, our physical, mental, emotional and spiritual attributes are established during our nine months in the womb. More extraordinarily still, if the feet, hands or head are massaged, then “time structure” is loosened and the formative period of the fetus is brought back into focus. This loosens energies that were blocked during the prenatal period thereby setting free the healing processes of the body, mind and spirit.
- *Swedish massage* involves four basic types of movement:
 - effleurage: soothing, stroking movements
 - petrissage: rolling and squeezing the tissues

²³Ornish D, Brown SE, Scherwitz LW *et al.* *The Lancet* 336: 129-133, 1990

- friction: small circular movements against the bone
- tapotement: cupping, flicking and clapping
- *Shiatzu*. This massage technique, also called *Japanese pressure point massage*, is really acupressure with finger pressure being applied to acupuncture points rather than needles being used.
- *Spinal touch treatment*. A plumb line is used to measure deviations of the spine from the vertical. The patient then lies face down and the practitioner uses very light touch at various points. This is supposed to redirect the “body’s energy” thus allowing the muscles to relax with the result that the spine is gently pulled back into its “natural position”.

Much of all of this is nonsense, Nevertheless, it is well to remember that touching is an important part of orthodox medicine. When used appropriately, it is a powerful channel of charismatic force.²⁴

Moxibustion

Moxibustion is a process employed by Chinese medicine in which burning herbs are used to stimulate acupuncture points. Application of moxibustion to the fifth toe is supposed to help childbirth by reducing the likelihood of having a breech delivery. Normally, a baby is delivered head-first but sometimes it comes out backwards because its bottom is in the mother’s pelvis. Because of the increased size, birth is more difficult and dangerous.

Dr Francesco Cardini, an obstetrician in Verona, Italy teamed up with Cr Huang Weixin from the Jiangxi Women’s Hospital in Nanchang, China to look at this question.²⁵ They conducted a randomised trial in 260 women in Nanchang who were having their first child and in whom at the 33rd week of pregnancy, the baby was upside down. Patients in the treatment group were given moxibustion for 7-14 days. If the baby was still upside down, then the obstetricians sometimes attempted to reverse its position by manipulation. In addition, they measured the number of kicks the baby made. After two weeks of moxibustion, 75% of babies were around the right way compared with 48% of those in the control group. At this point, 24 babies in the control group and one in the treatment group were turned around manually. Despite this help, the moxibustion group still fared better at birth with 75% of babies being delivered head-first compared with 62% in the control group. The authors thought perhaps moxibustion helped by stimulating the baby to kick its way around into the correct position in the womb.

²⁴Benjamin WW. Healing by the fundamentals. *New England Journal of Medicine* 311:595-597, 1986

²⁵Cardini F, Weixin H. Moxibustion for correction of breech presentation: a randomized controlled trial. *Journal of the American Medical Association* 280: 1580-1584, 1998

Music therapy

Music has power. Rhythm and harmony have been related to magic and the supernatural for centuries. People with physical disability need access to music, perhaps more than others as they have empty hours to fill. More than this, music has specific benefits, influencing the functions of the autonomic (subconscious) nervous system and providing helpful psychological effects. Music therapy has been shown to be of value in children with mental and physical handicaps, adults with mental illness, those suffering from Parkinson's disease, and patients with head injuries.²⁶ It might also slightly reduce pain after major abdominal operations.²⁷

Near-death experiences

People who are dying or have been near to death have sometimes reported profound and unusual experiences. Although the nature of these experiences vary from person to person, there are a number of threads that tend to be common.

- an experience of peace, well-being and happiness and an absence of pain.
- a sense of detachment from the physical body leading to an out-of-body experience in which the person typically finds himself suspended about his physical body.
- entering a dark tunnel with a bright light at the end
- feeling surrounded by a warm, bright and diffuse light
- meeting friends, relatives and guides
- a panoramic view of time with life's major events cascading before one's eyes

Occasionally, however, the experiences are much more distressing with feelings of unpleasantness, a sense of non-existence or an eternal void, or visualisation of hellish landscapes and beings.²⁸

There have been numerous attempts to explain these phenomena. These include invoking spiritual awakening with a glimpse of the afterlife (transcendental explanation), hallucinations due to insufficient oxygenation with consequent chemical changes in the brain (physiological theory) and psychological responses to the threat of dying.^{29,30}

²⁶Gloag D. Music and disability. *British Medical Journal* 298: 402-403, 1989

²⁷Good M et al. Relief of postoperative pain with jaw relaxation, music and their combination. *Pain* 81: 163-172, 1999

²⁸Greyson B, Bush NE. Distressing near-death experiences. *Psychiatry* 55: 95-110, 1992

²⁹Roberts G, Owen J. The near-death experience. *British Journal of Psychiatry* 153: 607-617, 1988

³⁰Owens JE, Cook EW, Stevenson I. Features of "near-death experience" in relation to whether or not patients were near death. *The Lancet* 336: 1175-1177, 1990

Whatever the reason for such experiences, they sometimes produce long-lasting changes in values, beliefs and behaviour that dramatically alter attitudes towards living and dying.

Negative ion therapy

Proponents of this therapy, sometimes called **air ionisation therapy**, claim that a reduction in the number of negative ions in the air produces illness. They use machines called “ion generators” to increase the number of negative ions in the atmosphere. One such negative ion is ozone: this is formed from oxygen and is bad for you. It is passing strange that the same people who extol the benefits of negative ion therapy are very likely to be also keen on the consumption of antioxidants which mop up free radicals (see the chapter on nutritional therapy). Free radicals are negative ions!

New Age healing

Devotees of the New Age believe that as we enter the third millennium since the time of Christ, and concurrent with the planet’s axes, we will pass into the Age of Aquarius - the New Age. Whereas the New Age had once been the preserve of the arcane, secret knowledge of occultists, psychics, gnostics and theosophists, since the mid-1960’s, it has captured the attention of a large segment of the American population and this has in turn spread to other Western countries. Adherents of the New Age seek social change by self-directed personal transformation. This has also left its mark upon the health professions.

There are many varieties of New Age thinking but there are a number of common threads. The first is the premise that we have found ourselves at a special place in time - at the threshold of a movement into a new age. Secondly, New Age healers believe that the healing they practise is holistic, that is, they acknowledge the unity of the body, mind and soul (or spirit). However, in comparison with other holistic forms of healing, New Age practitioners believe that their teachings have either existed since time immemorial or are founded on ancient wisdom which mankind has disregarded until now.

Levin and Coreil from the University of Texas in Galveston, Texas have categorised New Age healing into three major groups which emphasize betterment of the body, mind or soul, respectively.³¹ Nevertheless, there is considerable overlap between them.

- One group places a major emphasis on bodily or psychological well-being by activities that are novel, secular, Western and not supernaturally orientated but are based upon rediscovered ancient teachings. It sees health as being attained by doing things such as expressions of love, sharing and generating heightened mental

³¹Levin JS, Coreil J. ‘New Age’ healing in the U.S. *Social Science and Medicine* 23: 889-897, 1986

capacities

- The second group concentrates on the study of esoteric teachings as a way to health. Esoteric teachings are those that are not generally intelligible and are understood only by those who are especially initiated. They believe in supernatural modes of healing which are reached by studying the ancient, occult body of knowledge and applying this teaching to one's own spiritual practices.
- The final group is characterised by predominantly Eastern ideas that encourage spiritual practice as the prime means of attaining good health. This mode of healing emphasizes the importance of contemplation.

The value of any of these techniques for improving or maintaining health has yet to be proven.

Palmistry

A palm reader may look at shape, colour and texture of the hands, investigate lines in the palms, pay attention to the various patterns, or "tune in" by clairvoyance. By this means, you are at risk of having your health foretold and your intelligence and emotional state described. The alignment of creases in the hand has also been the subject of scientific interest as various patterns have been related to a number of diseases. A review of palmistry may be found in the pages of *The Lancet*.³²

Paranormal healing

Paranormal therapies assume the existence of either supernatural or psychic forces. Supernatural forces imply the existence of a supreme being, that is God. On the other hand, psychic forces, although they appear to be contrary to natural laws, are really as yet unexplained natural laws. This section is concerned solely with psychic phenomena as related to healing. Supernatural or divine healing in a Christian perspective is discussed at length in chapter 5.

Psychic, occult or spiritual healers say that they have something in their "energy fields" that is capable of interacting with and replenishing the "energy fields" of the patient, thus curing disease. Some spiritualists believe that they can communicate with the spirit of a doctor or some other knowledgeable spirit who then gives them the information they need. Spiritualism became popular in Europe in the nineteenth century. Séances were held in which objects materialised or dematerialised or communications were made with spirits

³²Penrose LS. Fingerprints and palmistry. *The Lancet* i: 1239-1232, 1973

of the departed through the medium of a clairvoyant. The spiritual healer often goes into a trance to get instructions. A common element to these healers is that they heal by touch, either simply placing their hands on the patient's head or affected part of their body, or by thought projection.³³

There are other paranormal healers who are more secular in outlook. They believe that they arrive at a diagnosis by a process of extra-sensory perception; an alternative explanation is that they are pretty good at having hunches. These healers say that by stroking the affected part, illness is cured as "bioenergy" streams from their palms. Such procedures are sometimes called "hand healing" or "therapeutic touch". This process is supposed to be similar to that involved in parakinesis, such as willing a spoon to bend.

Paranormal healing needs to be viewed in the context of the total spectrum of claimed paranormal phenomena. What are they? Here are some:

- *Extrasensory perception*: psychic ability to perceive things without using the normal senses, It includes:
 - mental telepathy*: the ability to communicate from mind to mind.
 - clairvoyance*: the ability to perceive events, persons or things which are remote in time and place.
 - precognition*: the ability to foresee events which are in the future.
- *Apparitions*: seeing ghosts.
- *Poltergeists*: noisy, mischievous ghosts which manifest themselves by throwing objects or causing physical damage.
- *Out-of-body experiences*
- *Psychokinesis*: the movement of objects without apparently using any of the normal physical forces. This includes *levitation* (body rising in the air) and poltergeistic phenomena.
- *Accelerated cures*
- *Religious stigmata*: the appearance on the skin of the signs of the wounds inflicted on Jesus Christ during his crucifixion.
- *Fire-walking and Fire-eating*
- *Psi* is a term sometimes used to encompass both ESP and psychokinetic phenomena.

If you put ideas such as these to the man in the street, you are likely to get a wide range of opinions ranging from the view that they are nonsensical to belief that it is divine intervention to assertions that it is all the work of the devil. So, what is the evidence?

FA Whitlock, one-time professor of psychiatry in the University of Queensland, Australia remarked that anyone who enquires into the nature of paranormal experiences

³³ Anonymous. Exploring the effectiveness of healing. *The Lancet* ii: 1177-1178, 1985

Table 1. Calculations of the amounts of energy in joules or parts of joules required to perform various forms of paranormal phenomena.

- spoon bending	joules
- poltergeists	joules
- dowsing	thousandths of joules
- telepathy	thousandths of joules
- distant viewing	thousandths of joules
- clairvoyance	thousandths of joules
- faith healing	thousandths of joules

and events does so with apprehension and some peril to himself.³⁴ It is very difficult to remain impartial in the face of inexplicable and disturbing phenomena for one tends to be swayed by one's biases, whether they be intrinsic scepticism or unalloyed acceptance.

JG Taylor and E Balanowski from the department of mathematics at King's College in the University of London argued that paranormal phenomena must be placed within the framework of modern science.³⁵ They concluded that on theoretical grounds, the only scientifically feasible explanation for such phenomena relates to electromagnetic fields. They calculated the amount of energy required to produce certain paranormal events (Table 1). They then compared this with electromagnetic signals that they measured from people undertaking various paranormal activities. There was insufficient energy to account for any of the phenomena.

A similar opinion was voiced by David Marks from the department of psychology at the University of Otago in Dunedin, New Zealand. After reviewing the published literature, he remarked that a century of investigation has failed to produce a single repeatable finding, and that until this happens, the paranormal must be regarded as an "incoherent collection of belief systems steeped in fantasy, illusion and error".³⁶ He believed that fraud, trickery, methodological error, mental imagery and coincidence abound³⁷ and that all paranormal phenomena could be explained in a number of ways:

- normal scientific physical processes account for some phenomena such as Kirlian photography and firewalking.
- normal scientific statistical analysis reveals that it does not really happen at all. Examples are dowsing, water divining and radiesthesia
- "slight of hand" by skilled magicians is the basis for other phenomena such as psychic

³⁴Whitlock FA. The psychiatry and psychopathology of paranormal phenomena. *Australian and New Zealand Journal of Psychiatry* 12: 11-19, 1978

³⁵Taylor JG, Balanowski E. Is there any scientific explanation of the paranormal? *Nature* 279: 631-633, 1979

³⁶Marks DF. Investigating the paranormal. *Nature* 320: 119-124, 1986

³⁷Marks DF. The psychology of paranormal beliefs. *Experientia* 44: 332-337, 1988

surgery and Gellerised watches.

“slight of mouth” is utilised by palm readers, astrologers, aura and tarot readers and spirit mediums. This process is called “cold reading”³⁸ and is a rather kind way of saying that the reader makes a calculated guess about the client’s background and problems, then produces a “reading” which seems to the client to be uniquely appropriate and carries with it the illusion of having been produced by paranormal means. The medium makes use of what has been termed the “Barnum effect”, that is, people tend to embrace a generalised description as referring to themselves. Many cold readers do this subconsciously and have convinced themselves that they actually possess psychic or paranormal abilities.

To my mind, there are difficulties with these views. Is it reasonable to say that all paranormal phenomena must be viewed within the framework of science? Radio waves were outside the understanding of science 200 years ago, yet they exist. It would be a bold man indeed to say that we know the boundaries of science. Similarly, many apparently paranormal phenomena may be sporadic. We may not understand the conditions necessary to cause a repetition of the events. Surely the real question is whether or not an event did occur, not whether or not there is a rational (that is, currently understood) explanation for that event.

A somewhat more sympathetic view was held by the afore-mentioned Professor Whitlock for he did not dismiss everything out-of-hand. With regard to extrasensory perception, he wrote “when all allowance is made for possible trickery, unconscious distortion and collaborative fraud, there seems to be a core of truth in these claims which cannot be explained away by reference to the usual channels of communication”. Similarly, he was convinced that there have been instances of levitation and poltergeistic activity that have each been well attested to by a number of individuals who have no particular axes to grind. Further he remarked that for the most part we get along tolerably well by ignoring paranormal phenomena, but in so doing, we may be bypassing some fundamental considerations that may be important for our future understanding of both normal and abnormal mental processes.

On the other hand, many psychologists and psychiatrists approach the problem from a more sceptical, mechanistic view. A survey in Winnipeg, Canada of 502 randomly selected adults showed that paranormal experiences were common in the population. Drs Ross and Joshi from the department of psychiatry at the University of Manitoba who analysed the people in this study proposed that paranormal experiences are triggered by trauma, especially childhood physical or sexual abuse.³⁹ Others have suggested that belief in the paranormal is associated with epileptic like activity in the temporal lobe of the

³⁸Dutton DL. The cold reading technique. *Experientia* 44: 326-332, 1988

³⁹Ross CA, Joshi S. Paranormal experiences in the general population. *Journal of Nervous and Mental Diseases* 180: 357-361, 1992

brain⁴⁰ or failure of the left side of the brain to control the right side⁴¹ or is related to schizophrenia.⁴²

I must say that I incline to Professor Whitlock's view. I have had no personal experience of such phenomena. But I do remember some 40 years ago as an impressionable medical student seeing a television programme by Dr David Stafford-Clark, a distinguished British psychiatrist. He interviewed a woman who testified of an extra-sensory or telepathic experience at the moment a major disaster happened to her sister on the other side of the world in New Zealand. So what you might say - perhaps she is a fraud. He then asked her who she was. She was his wife!

What is needed is what P Kurtz of the Committee for the Scientific Investigation of Claims of the Paranormal in Buffalo, New York has championed. Universal rejection of anything paranormal on the grounds that it must be absurd in not helpful. Rather, selective sceptics should work with paranormal practitioners in designing, testing and interpreting experimental paranormal projects or in assessing paranormal events.⁴³ One such study has been undertaken in relation to high blood pressure and another has looked at distant healing in patients with AIDS.

Does paranormal healing reduce high blood pressure?

Dr Jaap Beutler from the department of nephrology and hypertension at University Hospital in Utrecht, The Netherlands together with a number of colleagues from his own department as well others from the department of social sciences and the Institute of Mathematical Statistics looked into this question. They conducted a prospective randomised trial using healers selected from several Dutch societies of paranormal healing. One hundred and fifteen patients with high blood pressure were divided into one of three groups. The first had laying on of hands during which talking was allowed. The second group had paranormal healing at a distance while the third group had no paranormal therapy. These last two groups sat behind a screen and both the patients and the doctors who measured their blood pressures were unaware whether they had been given paranormal treatment or not. Treatment was given weekly for 15 weeks. Two-thirds of the patients were taking pills for their high blood pressure.

⁴⁰Skirda RJ, Persinger MA. Positive associations among dichotic listening errors, complex partial epileptic-like signs, and paranormal beliefs. *Journal of Nervous and Mental Disorders* 181: 56-58, 1993

⁴¹Brugger P, Gamma A, Schafer M, Taylor KI. Functional hemispheric asymmetry and belief in ESP: towards a "neuropsychology of belief". *Perception and Motor Skills* 77: 1299-1308, 1993

⁴²Thalbourne MA. Belief in the paranormal and its relationship to schizophrenia-relevant measures: a confirmatory study. *British Journal of Clinical Psychology* 33: 78-80, 1994

⁴³Kurtz P. Skepticism about the paranormal: legitimate and illegitimate. *Experientia* 44: 282-287, 1988

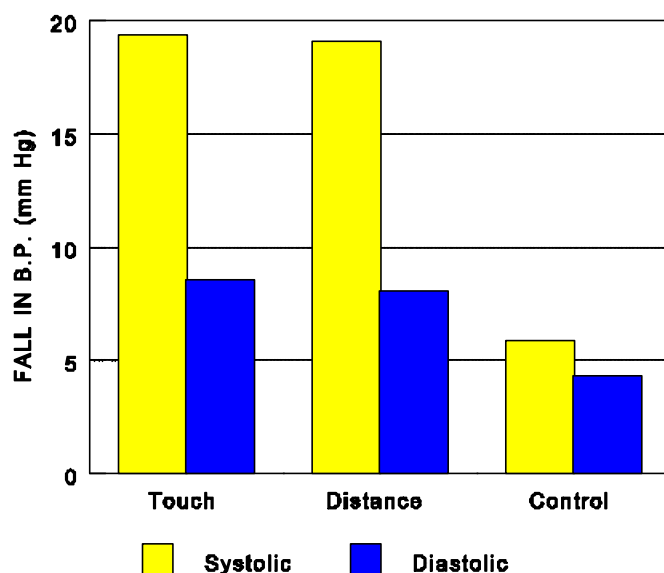


Figure 2. Falls in systolic and diastolic blood pressure 15 weeks after beginning treatment in patients not receiving other medications who were given paranormal touch, healing at a distance, or placebo control.

The authors reported their results in a paper⁴⁴ entitled "Paranormal healing and hypertension". After 15 weeks, the falls in systolic blood pressure (see the chapter on meditation for definitions) in the three groups were 19.3, 17.5 and 14.2 mm Hg, respectively. Likewise, the falls in diastolic blood pressure were 8.3, 9.4 and 6.7 mm Hg. These differences were not significantly different and the authors concluded that there was no evidence of a paranormal effect on blood pressure and that the fall in all three groups was caused either by the psychosocial approach or was a placebo effect of the trial itself.

However, this does not seem to me to be the whole story. Two-thirds of the patients were on various medications to lower their blood pressure. More relevant were the findings in the 37 patients who did not take any medicines for blood pressure. As can be seen from Figure 2, there were greater falls in both systolic and diastolic blood pressures in patients who received paranormal therapeutic touch or paranormal healing at a distance compared with patients in the placebo group. It is difficult to tell from the information given by the authors whether or not these differences were significant but they certainly look suggestive. I rather think this trial would be well worth repeating in patients who were not receiving any blood pressure medication.

⁴⁴Beutler JJ, Attevelt JTM, Schouten SA *et al.* *British Medical Journal* 296: 1491-1494, 1988

What is the effect of distant healing in patients with AIDS due to HIV infection?

A group of investigators from the California Pacific Medical Center in California in the United States looked at “distant” or paranormal healing in 40 patients with advanced AIDS.⁴⁵ They were randomly allocated into either the distant healing or the control group. Self-identified healers representing many different healing and spiritual traditions were identified throughout the United States. They never met the patients but subjected them to distant healing for 10 weeks. The effects were assessed six months later. Patients in the distant healing group had only one-sixth the rate of severe illnesses seen in patients with AIDS compared with the control group, needed to see a doctor two-thirds as often, and had a 75% reduction in hospital admissions. On the other hand, there was no difference in the levels of special white cells in the blood called CD4 cells which fall to very low levels in AIDS. The authors believed that the data were sufficiently encouraging to warrant further research.

Past lives therapy

This “therapy” is based upon the idea that a person’s soul is reincarnated from one life to the next and that events in past lives influence current problems. Hypnosis or psychoanalysis is used to get people to “regress” to their past lives, find the problem and then work on it. Of course, all this is impossible to prove one way or the other. You have to decide for yourself whether or not you think it is likely.

Polarity therapy

This system was invented by Randolph Stone, an American osteopath who migrated to India near the end of his life. The body is supposed to have five centres which have positive, negative and neutral components. For example, the “fire centre” is said to govern the digestion, stomach and bowels. According to Stone, disease is due to obstruction to the flow of energy between these centres. Manipulation, stretching postures and diet are all invoked to restore the flow of energy. There is no evidence that these ideas are anything other than figments of Stone’s imagination.

Psionic medicine

George Laurence, an English general practitioner, devised a system in the middle of the

⁴⁵Sicher F, Targ E., Moore D, Smith HS. A randomized double-blind study of the effect of distant healing in a population with advanced AIDS. Report of a small scale study. *Western Journal of Medicine* 169: 356-363, 1998

twentieth century which linked radiesthesia, homeopathy and orthodox medicine. Illness is said to be due to "miasms" that may be congenital or acquired. These miasms somehow disturb the body's "etheric energy field". A pendulum (see radiesthesia) and colour are used to help arrive at a diagnosis and homeopathy is used as the main therapeutic measure.

Psychic surgery

This is especially popular in the Philippines. The "surgeon" uses his fingers to apparently open the body, remove some small object, then close up the cut without leaving a scar. You may well have seen documentaries on the subject on the television. In addition to "operating", psychic surgery involves injections, prayer and manipulation.⁴⁶ One commentator believed that practitioners are simply charlatans who are masters of the sleight-of-hand.⁴⁷

- A 55-year old Australian man with a 15 year history of recurrent kidney stones travelled to the Philippines. He consulted a psychic surgeon who manually kneaded his abdomen on three occasions. On the third visit, a "stone" was produced. Subsequent analysis of this object back in Australia revealed that it was a piece of volcanic rock.⁴⁸
- Investigation of the stains on the clothing received during psychic surgery have shown that they are of non-human animal origin.⁴⁹
- A woman from Brisbane, Australia consulted a psychic surgeon in Manila in the Philippines for constant ringing in the ears. He removed what appeared to be clots of blood from her ear and abdomen, some of which stained her clothing. This was examined at the Forensic Biology Laboratory in Brisbane and showed that it was blood, not from her, but from at least two other individuals.⁵⁰

⁴⁶Dein S. The management of illness by a Filipino psychic surgeon: a Western physician's impression. *Social Science and Medicine* 34: 461-464, 1992

⁴⁷Skrabanek P. Paranormal health claims. *Experientia* 44: 303-309, 1988

⁴⁸Clague AE, Bryant SJ, Splatt AJ, Bagley AS. Psychic surgery "quackery". *Medical Journal of Australia* i: 153, 1983

⁴⁹Lincoln PJ, Wood NJ. Psychic surgery: a serological investigation. *The Lancet* i: 1197-1198, 1979

⁵⁰Roffey PE, Freney LC, Ansford AJ. Faith healing or Russian roulette? *Medical Journal of Australia* 167: 649, 1997

Psychotherapy and cancer

Practitioners of alternative medicine maintain that counselling, adoption of a positive attitude, and other psychological factors are important in determining the prognosis in patients with cancer. Is this true? If it is, then the corollary is that when the disease progresses, the patient is to blame. Fortunately or unfortunately, the evidence seems to be that it is not true. Dr Marcia Angell thinks “it is time to acknowledge that our belief in disease as a direct reflection of mental state is largely folklore”.⁵¹

Dr Barrie Cassileth and colleagues from the University of Pennsylvania Cancer Center in Philadelphia, USA looked at the effects of social and psychological factors on the course of cancer. They looked at two groups of patients. Firstly, they followed 204 patients who had inoperable cancers until they died. Secondly, they watched 155 patients who were operated on for early melanoma (skin cancer) or breast cancer until there was a recurrence of the cancer. They found that social and psychological factors did not influence either the length of survival in the first group or the time to relapse in the second. They concluded that “the biology of the disease ... override(s) the potential influence of life-style and psychological variables once the disease process is established.”⁵²

The Simonton method

Dr Carl Simonton is the medical director of the Cancer Counselling and Research Center at Fort Worth in Texas, USA. He has developed his own method and has written numerous books on articles on the subject. In one paper⁵³, he said that he had followed 193 patients with advanced cancer and that the median survival times were 38.5 months for breast cancer, 22.5 months for bowel cancer and 14.5 months for lung cancer. He then went on to say that “these survival times are considerably longer than expected median survival times reported in the literature”. This statement is like comparing apples with oranges. A randomised, controlled trial with similar patients in which only one group receives counselling would be needed to validate his method.

The Spiegel method

Dr David Spiegel is a psychiatrist at Stanford University School of Medicine in Stanford,

⁵¹Angell M. Disease as a reflection of the psyche. *New England Journal of Medicine* 312: 1570-1572, 1985

⁵²Cassileth BR, Lusk EJ, Miller DS *et al.* Psychosocial correlates of survival in advanced malignant disease? *New England Journal of Medicine* 312: 1551-1555, 1985

⁵³Simonton OC, Matthews-Simonton S. Cancer and stress: counselling and the cancer patient. *Medical Journal of Australia* i: 679-683, 1981

California. He and his colleagues looked at the effects of a randomised trial of psychosocial intervention on 86 patients with metastatic (widespread) breast cancer. The intervention consisted of patients getting together once a week for a 90 minute group therapy session as well as being taught self-hypnosis for pain control. Sessions were continued for up to one year. All patients in both groups received standard care for their cancer. There were 50 patients in the treatment group and 36 in the control group. This is rather unusual for a randomly generated study (one would expect similar numbers in each group) and should immediately make one suspicious. Patients were followed for ten years, at which time only three patients were alive. However, the mean survival time in the intervention group was 36.6 months in the intervention group compared with 10.8 months in the control group. Differences between the two groups were not apparent until 20 months after entering the trial; at this point, half the patients in both groups were dead.⁵⁴

The Bristol Cancer Help Centre method

The Bristol Cancer Help Centre was set up in England in 1979 to offer alternative treatments for patients with cancer. The treatments included the “Bristol diet” of raw and partly cooked vegetables with proteins from soya and pulses together with counselling and “healing”. Patients attended the clinic for a day to a week at first. Since this centre attracted considerable public interest and profound medical scepticism, the staff decided to undertake a survey to validate their results.

For 17 months beginning in June 1986, 334 women with breast cancer attended the clinic for the first time. A control group was derived from 461 women with breast cancer attending a specialist cancer hospital and two general hospitals who did not receive the “Bristol” treatment. All the patients were followed up until June 1988. The authors reported their results in a paper⁵⁵ entitled “Survival of patients with breast cancer attending Bristol Cancer Help Centre”. Patients who attended the Bristol Centre did significantly *worse* than the patients who did not have their treatment.

- For patients who did not have metastases (spread) at entry, the rate of developing metastases was nearly three times higher in patients who attended the Centre.
- For patients who did have metastases at entry, the death rate was nearly twice as high in those who attended the Centre.

The authors concluded that “the possibility that some aspect of the BCHC regimen is responsible for ... decreased survival must be faced” and went on to add that “other alternative practitioners should have the courage to submit their work to this type of stringent assessment”.

⁵⁴Spiegel D, Bloom JR, Kraemer HC, Gottheil E. Effect of psychological treatment on survival of patients with metastatic breast cancer. *The Lancet* ii: 888-891. 1989

⁵⁵Bagenal FS, Easton DF, Harris E *et al.* *The Lancet* 336: 606-610, 1990

Pyramid therapy

Some people believe that objects in the shape of a pyramid are able to influence other materials in various ways. They take their inspiration from the pyramids of Giza in Egypt. Pyramids are supposed to keep razor blades sharp and make wine taste better! Similarly, if you sleep with a pyramid over your head or drink water that has been in a pyramidal container, healing is supposed to follow. This is just nonsensical.

Radiesthesia

Radiesthesia is a method of diagnosis rather akin to divining for water with a bent wire. Such procedures are sometimes called “dowsing”. Matter is supposed to have intrinsic fields that can be picked up by the human body and registered with a divining instrument. The usual tool is a pendulum which is allowed to oscillate over a sample of the person such as a hair, nail clipping, spot of blood or droplet of saliva placed on either a diagram or a metre-long wooden ruler. This sample is called a “witness”. Various diagnostic questions are then asked and the answers are determined by the way in which the pendulum oscillates. These oscillations are supposed to be due to distortions or disharmonies in “energy patterns”. These ideas were first proposed by a French priest, the Abbé Mermet, in the 1930's when he wrote a book called *Principles and practice of radiesthesia*. As you might expect, there is no scientific evidence to support this approach.

Radionics

This is rather similar to radiesthesia. Again, a blood or tissue sample is placed in a box which has a measuring device such as a magnet or a pendulum which can be tuned into the patient's “frequency”. One such machine is the “Abram's box” constructed by Albert Abrams, an American doctor at the beginning of the twentieth century. Others are the instruments made by Ruth Drown, an American chiropractor and by George de la Warr, an English engineer. The operator asks a variety of questions and arrives at a diagnosis on the basis of the responses of the machine. The machine is supposed to be able to detect changes in the body's “life fields” induced by disease. Once a diagnosis is made, the radionic practitioner either prescribes a homeopathic remedy or “transmits” the treatment by thought power to the patient who may be many kilometres away. This is the ultimate in telemedicine. What a shame it is all pure fiction.

Rebirthing

This process, sometimes called **primal therapy**, was popularised by a Los Angeles

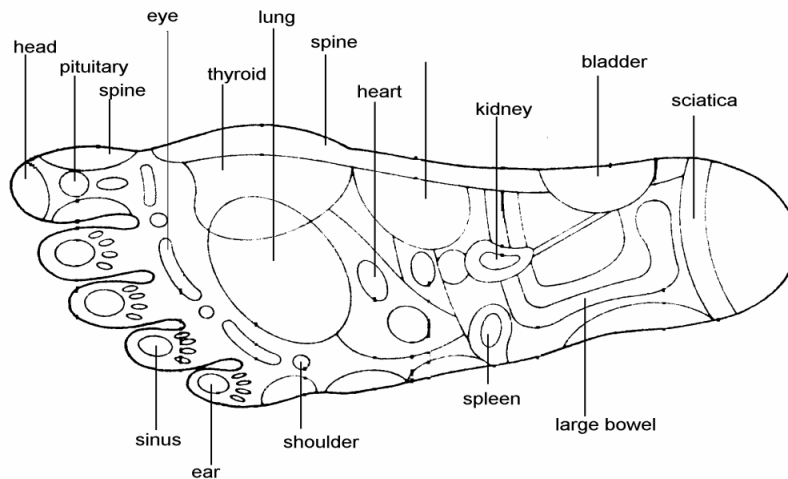


Figure 3. Sole of the right foot showing the organs that are supposed to be represented there.

psychiatrist, Arthur Janov. The basic idea is that certain unmet needs of the newborn or infant cause pain which subconsciously festers and causes trouble in later life. The “therapy” entails dozens of sessions to simulate birth and to induce the patient to let out a “primal scream”. This is supposed to cure all manner of psychiatric and psychosomatic conditions.

Reflexology

Reflexology, sometimes called **zone therapy**, is an ancient eastern system in which the soles of the feet and the palms of the hand are massaged for both diagnostic and therapeutic purposes. This idea was popularised in the West in the early part of the twentieth century by William Fitzgerald, an American ear, nose and throat surgeon, then was further refined by another American, Eunice Ingham. Adherents of reflexology maintain that the body is divided into ten longitudinal zones that end in the feet, hands and scalp. Energy is supposed to flow along these zones and influence organs located within them. Deposits in the feet and hands are supposed to obstruct the flow of energy and cause disease.

In a manner analogous to iridology, the whole of the body is imagined to be represented on the soles of the feet. For example, the head is said to be located on the tip of the big toe while the lung is found near the ball of the right sole (Figure 3). A reflexologist feels the feet looking for “crystalline” or “gritty” substances and searches for

areas of tenderness. By this means, he claims to be able to tell you which organs and tissues are diseased. Likewise, treatment is given by applying pressure to certain parts of the feet.

There is little scientific evidence to support either the theory of the practice of reflexology. A group of investigators from the chest medicine and allergy clinic in Copenhagen, Denmark studied 30 patients with asthma. They were randomly divided into two groups, one of which received ten hour-long sessions of foot therapy at weekly intervals. There were no differences between the two groups in either severity of symptoms or usage of drugs active against asthma.⁵⁶

On the other hand, Terry Oleson PhD and William Flocco from the California Graduate Institute and the American Academy of Reflexology in Burbank, California reported in a reputable medical journal that reflexology was of value in women with premenstrual tension.⁵⁷ They claimed that there was a 45% improvement in symptoms in patients given reflexology compared with 21% in those given placebo reflexology. There are a number of problems with this study. Eighty-three women entered the study but results were reported for only 35. Each woman was asked to chart 38 symptoms each day and categorise them as 0, 1, 2 or 3 but we are not told what all the symptoms were. Finally, insufficient data are given to allow the results to be checked statistically. I suspect that this paper is an aberration and it clearly needs to be repeated before any credence can be given to it.

It seems likely that any benefit given by reflexology is due to the placebo effect of a convincing charlatan.

Reichian therapy

This therapy was originally conceived by Wilhelm Reich (1897-1957), a psychiatrist in Vienna at the end of the First World War. He believed that repressed hurtful experiences held in the subconscious can cause physical and emotional tensions which can be relieved by certain physical movements. His ideas were taken up by Alexander Lowen who devised a series of “stress” exercises designed to break down defensive barriers; this has been called **bioenergetics**.

Later in life, Reich moved to the United States. He came to the conclusion that many disorders were due to a failure to achieve an orgasm. He said that there is a fundamental life force which he called Primordial or Cosmic Orgone Energy. He reckoned that this orgone surrounds us all and penetrates everything to some degree. He made a box of metal and wood which he called an “accumulator” that was supposed to concentrate

⁵⁶Petersen LN, Faurschou P, Olsen OT, Svendsen UG. [Foot zone therapy and bronchial asthma - a controlled clinical trial.] *Ugeskr. Laeger* 154: 2065-2068, 1992

⁵⁷Oleson T, Flocco W. Randomized controlled study of premenstrual symptoms treated with ear, hand and foot reflexology. *Obstetrics and Gynecology* 82: 906-911, 1993

orgone so it could be used for healing. This was the basis of his **orgone therapy**. Reich was eventually arrested as a charlatan who was selling prohibited medical equipment and he died in gaol.

Sound therapy

Sound therapists reckon that every organ and tissue in the human body has its own “vibrating” frequency which can be altered by applying sound waves. Disease is supposed to be manifested by a change in the “vibration frequency” or “energy output” of an organ or tissue. This is then cured by applying the appropriate sound waves with a sound applicator - an instrument that delivers sound from audio tapes. There is no basis at all for this “therapy”. It is not to be confused with ultrasound diagnosis used by radiologists to look at internal parts of the body such as the liver or a baby in its mother’s womb. Nor is it to be mistaken for ultrasound therapy used by physiotherapists for soft tissue disorders.

Spagyrik

This therapy, sold by Signalysis of Gloucestershire in England, has been described as a unified system of diagnosis and treatment which has been marketed especially for people with a life-threatening or chronic illness. It involves distilling then evaporating a specimen of blood or urine then examining the ash under a microscope to produce an “individualised patient oriented diagnosis”. The ash is then mixed with herbs and diluted and the patient drinks the mixture. British pharmacists were warned recently that spagyrik was considered unscientific quackery and they would be struck off if they were associated in any way with it.⁵⁸

Therapeutic touch

This is an approach in which it is claimed that a practitioner’s hands can sense and interact with a person’s energy flow, thus relieving physical and emotional illnesses. This technique was described by Dolores Krieger, a nurse at New York University’s division of nursing in the United States nearly thirty years ago and is mostly used by nurses. A variation on theme is **healing touch** taught by the American Holistic Nurses Association. The word “touch” is actually a misnomer as the procedure generally does not involve touching. Rather, the practitioner first “centers” herself, that is, by a conscious effort becomes still within. Then she uses her hands to assess the patient’s energy field by slowly moving them in the space over the patient’s body then holding them still at certain spots to direct energy there. It has been claimed that therapeutic touch reduces anxiety, relieves tension

⁵⁸Cambell C. “Quackery” outlawed in registered pharmacy. *British Medical Journal* 315: 625, 1997

headaches and enhances wound healing. There are plenty of enthusiasts but more sceptics who, depending upon their kindness, describe it either as merely a placebo or as a hoax, voodoo or witchcraft.

Most of the articles on this subject are in the nursing literature. However, one study has found its way into the *Journal of the American Association*. The authors had most interesting affiliations. Linda Rosa is a nurse from the “Questionable Nurse Practices Task Force National Council Against Health Fraud Inc.) And Emily Rosa was a sixth-grade student. Larry Sarnar is from the National Therapeutic Touch Society while Stephen Barrett MD is from Quackwatch Inc in Pennsylvania. Twenty-one practitioners of therapeutic touch were recruited for the trial. They were tested under blinded conditions to determine whether they could correctly identify which of their hands was closest to the investigator’s hand. This was done by the practitioners resting their hands 25-30 cm apart, palms up, on a flat surface with a screen preventing them seeing the investigator. A coin was then flipped to determine whether the investigator held her right or left hand 10 cm above the touch practitioner’s hand. This was repeated 10 or 20 times. Therapeutic touch practitioners got it right 44% of times. On average, they would be expected to get it right by chance on 50% of the tests. The authors concluded that these practitioners were unable to detect the “energy field”, therapeutic touch’s most fundamental claim. Their recommendations were unequivocal and forthright: “the claims of TT are groundless and ... further professional use is unjustified”.⁵⁹ Of course, this produced a flurry of letters to the editor by believers in therapeutic touch who simply did not want to face the facts. None of the correspondents were able to provide any evidence that therapeutic touch works nor were any able to produce evidence for the existence of a high energy field, despite the fact that the James Randi Educational Foundation has offered a \$US1 million reward to anyone who can do so.⁶⁰

Urine therapy

In this bizarre treatment, a patient is given his own urine either to drink, place under the tongue, put on the skin or inject. This is supposed to cure all manner of diseases and treat allergy to members of one’s own family!

Vega testing

Vega testing is a form of modified electroacupuncture in which a machine is used to detect changes in “bioenergy” by measuring the conductance of electricity in the skin when an electrical circuit is set up through glass vials containing various substances. The machine

⁵⁹Rosa L, Rosa E, Sarnar L, Barrett S. A close look at therapeutic touch. *Journal of the American Medical Association* 279: 1005-1010, 1998

⁶⁰Rosa L, Sarnar L, Barrett S. *Journal of the American Medical Association* 280: 1908, 1998

was invented by a German doctor, Helmut Schimmel in the 1970's. It has been used as an unorthodox method of diagnosing allergic and other conditions. It has no established scientific basis and there are no controlled trials reported in the literature to establish its validity and usefulness.⁶¹

Yet more therapies

Of course, there are countless other alternative therapies that are touted. The list just goes on and on and new ones will always appear. Some of those that were being promoted at a recent New Age exposition held in Adelaide included aura healing, aura soma (colour therapy), Bowen technique (massage), chakra balancing, educational kinesiology, homeopathic meridian science, ki'ao, kinetic energen, native American sweat lodge ceremony, orthobionomy ("homeopathy of the body"), psychodynamic bodywork, psychoperistaltic massage, quantum healing (telepathy), Reiki laying on of hands, runes, Trager approach (yoga-like) and Zulu ritual dance. These various procedures all generally espouse a similar theme. Each intervention is generally claimed to facilitate the body's innate healing powers. As a rule, however, they can be simply considered along with most of the other diagnostic techniques or therapies discussed in this chapter as:

Lies, just damned lies"

⁶¹Katellaris CH, Weiner JM, Heddle RJ *et al.* Vega testing in the diagnosis of allergic conditions. *Medical Journal of Australia* 155: 113-114, 1991