



The Skeptics SA guide to Qakatak

Qakatak is dedicated to getting some control over 'alternative' medicine and educating the public on the difference between medicine and pseudo-medicine. Part of that strategy is to force the labeling and advertising of all products or procedures that infer therapeutic claims to declare whether or not they can repeatedly demonstrate efficacy in controlled, double-blind scientific tests. It is not the role of Australian Skeptics to tell the public what they can and can't do, but merely to supply accurate information so the buying public can make individual, informed decisions.

The history of Europe for much of the last 2000 years has been dominated by the Church. People who proposed alternatives to the teachings of the Church were burned as heretics. Copernicus, Galileo, Bruno and others changed things so that scientists such as Newton could hypothesise. Medicine began to try new things and search in new directions. Arsenic became a cure-all and blood letting was a common remedy with death from septicaemia a common result.

Samuel Hahnemann observed that many of the people who came in contact with such medicine either got worse, or died. He came up with two hypotheses. One was that 'like cures like' and the other was that the more di-

lute the solution, the more powerful the effect. He called his system homeopathy. By diluting the original substance down millions of times, his patients were just taking water and so suffered no ill effects.

Smallpox had been a major killer for centuries. All that could be done was to take the pus from someone with a mild case of smallpox and use it to vaccinate children, hoping that they would also get a mild case. Most of those children got severe smallpox and apart from the two per cent who died, many of the rest were badly disfigured with pock marks. Clearly, a better method was needed.

Around the same time as Hahnemann was developing homeopathy, folk tales claimed that milkmaids who had suffered cowpox did not get smallpox. Physician Edward Jenner's hypothesis was that if he injected people with pus from a cowpox sore, he could prevent them from getting smallpox. In 1796, he injected cowpox pus into 8 year old James Phipps, who developed cowpox. Several weeks later, Jenner injected smallpox pus into him, but it had no effect. The experiment was duplicated on many others and the hypothesis was validated. Smallpox had been one of the greatest scourges of mankind for thousands of years,

but with the use of science, just 181 years later, it was totally eradicated. In a few years time, the defeat of polio will have been even quicker.

What is the difference between con-men and alternative medicine practitioners? Con-men set up some deception or scam then gain people's confidence. People willingly part with their money and are said to have been conned. Alternative medicine practitioners make claims of medical knowledge and ways of treating and preventing ailments that cannot be backed up by science. They call themselves health professionals to gain people's confidence who then willingly hand over their money.

When asked for scientific testing, they nearly always refuse. On the few occasions that they have been tested, their claims are shown to be false. When a new medical hypothesis is proposed, it remains a hypothesis until proven by the scientific method. If it works, then it is adopted by medicine. If it doesn't, then it is either discarded as useless or called alternative medicine.

It has often been said that only a small percentage of medical procedures have been properly tested. A double blind randomised trial on immunisation would require a large group of

people, say 1000, to be immunised against a disease. Another 1000 people would receive a harmless substance as a placebo and the third 1000, the control group, would receive nothing. All 3000 people would then be subjected to the disease in question and the results would be recorded. Obviously, many people would die, so it would never be done. Chemotherapy would be the same and so would removal of an appendix.

Therefore, it is true that most medical procedures have not been properly tested, but if my sister hadn't had her appendix removed when she was a child, she would have died. My sister-in-law had chemotherapy after a mastectomy. Neither procedure has been subjected to a double blind, randomised trial for the reasons given above. However, without both procedures, she would be dead.

There is statistical evidence that surgery, chemotherapy and mouth-to-mouth resuscitation work. That makes it medicine according to the dictionary.

What will keep us all happy? It can cost tens of thousands of dollars to test some products and techniques, and the profits aren't necessarily at the end of the rainbow, so they may not be presented for testing nor ever come onto the market, denying consumers any benefit because there is not enough profit for the sponsors. It can also take years to do such tests. While the bureaucrats argue, the suffering consumers could be using the products or techniques.

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I turn to my Macquarie dictionary, which has seven definitions for medicine. The first is 'medicine: any substance or substances used in treating disease; a medicament; a remedy.'

Obviously, Band-Aids have no medicinal effect, but we will never stop parents putting Band-Aids on children to cure them of all sorts of ailments from bumps on the head to tummy aches. If the vendors of products such as Echinacea and Evening Primrose Oil make therapeutic claims but cannot prove efficacy, let all such products be labeled pseudo-science. If it treats disease, it is medicine. Not orthodox, mainstream or anything else. Medicine, just as the dictionary says.

If it claims to treat disease but can't demonstrate that claim, then it is pseudo-medicine. It is not alternative, complementary, holistic or anything else. It is just pseudo-medicine and if it were labeled so, the consumers could make informed choices.

There are good and bad bus drivers, plumbers and medical practitioners. Australian Skeptics does not concern itself with quality control, leaving that to organisations such as Australian Consumers' Association. Quacks are pretenders to medical knowledge. If medical practitioners abandon science and make pseudoscientific claims, they become quacks and Qakatak – Australian Skeptics – will get involved.

When people travel by plane, they don't have to concern themselves with whether or not the captain can fly.

When they go to the top of multi-storey building, they can take it on faith that the builders did a proper job. When people get sick, why is that they are expected to sift the wheat from the chaff on who has and has not been trained in scientific medicine?

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