

Alternative Therapies

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Software type	Macromedia Authorware
Subject area	Alternative Therapies/Clinical trials
Intended audience	16 plus -Undergraduate
Cost	£25.00 UKHE and £350.00 others
Hardware specifications	Stand-alone, networked and intra/internet delivery on Windows 3.1, '95, '98 2000 or NT platforms.
License details	Full site for multi-users
Documentation	Tutor's notes and software installation guidelines

It is unique in my experience for a teaching document to start with the warning that what follows may well be a load of nonsense. This beautifully-produced program starts with the statement "Please note that many of the statements/claims made concerning the therapies in this program are those of the practitioners of the therapies. The claims may or may not have a factual basis, and are not necessarily the views of the authors". What follows consists of two things. Firstly the flights of fancy, meaningless statements, and downright fraud which are already available by the truck load on the internet. Secondly, there is a quite serious attempt to describe the principles of clinical trials. But these two aspects are never brought together. There is no attempt whatsoever to assess the truth of any of the statements and claims that are made. To that extent, the program is not about science at all.

The main topics are acupuncture, aromatherapy, chiropractic, herbalism, homeopathy, osteopathy and hypnotherapy. After describing what is claimed for them, an example of a clinical trial follows. This bit is done quite well if viewed as tutorial on clinical trial design, but it contributes nothing to the subject of the program. In the cases of chiropractic and homeopathy (though not aromatherapy) the results of the trial are assessed as positive, but there is no attempt at all to say whether this trial is typical, or whether the treatment is really thought to be effective.

In one particularly bizarre part of the acupuncture section we are invited to click to discover about the "classical Chinese theory" and the "Western scientific theory" of how acupuncture works [sic]. The former is the usual mumbo jumbo about "meridians" (not defined) and "energy" (not defined). But what really takes the biscuit is what is offered as the Western scientific theory: "Western science has shown that cells are influenced by patterns of electrons flowing through them (sometimes called 'bioelectrons')". Funny –I always understood that currents were carried by ions –this is as nonsensical as the classical explanation.

There is also a category named "other" that gives briefer details on 24 other "therapies" from crystal healing and Gerson therapy (one of the more unpleasant frauds) to reflexology and urine therapy. Brief, and totally uncritical, information is provided on what their proponents claim.

The program contains many quizzes to assess your knowledge of homeopathy, acupuncture etc. In order to do well on these tests you have to assent to all sorts of untrue, or often simply meaningless, statements. For example I was marked "wrong" because I failed to tick the box that says measles is "wholly treatable by chiropractic". Is this a sensible way to teach pharmacology?

I take pharmacology to be the science concerned with what drugs do and how they do it. And I take science to be concerned with distinguishing truth from fiction. By those criteria, this program is concerned with neither pharmacology nor science. It is a disgrace to both.

Quality of content	*
Accuracy of content	*
Ease of installation	****
Ease of use	*****
Quality of interface/navigation	****
Clarity of learning objective	who cares?
Value to teacher	*
(*****Maximum)	

Reply by Prof. Ian Hughes, University of Leeds

A great deal of money is spent by members of the public on a considerable variety of alternative or complementary medicines. Our current medical students will discover that many of their patients are experiencing or have considered this type of treatment. With increasing use of the Internet such patients will often be well informed (or misinformed) about alternative treatments and in a patient centred NHS will expect their medical practitioner also to be aware that alternatives exist. "No, I've never heard of it, I don't know anything about it but I'm sure it's useless" is not an answer which helps the partnership with the patient nor does it generate further confidences. A large number of patients, particularly those with chronic diseases, believe their circumstances are improved by alternative or complementary therapies and surely that is what it is all about. Patients expect their doctors to live in the real world in which alternative therapies do exist, are widely used and are perceived by individuals to be of real benefit.

With regard to effectiveness it is too easy to take the stance that any trial with a positive outcome for an alternative therapy must, by definition, be a poor trial and be flawed. There is no need for the mechanism to be understood for a treatment to be effective. Can we really say we understand how antidepressants work? Nor is the lack of current acceptance an indicator of correctness. How long were purinergic nerves or helicobacter pylorii crying in the wilderness?

The "Alternative Therapies" program attempts to inform medical students about the variety of alternative therapies and the claims made for such treatments. It also attempts to equip medical students with the ability to judge evidence and come to their own conclusions rather than to adopt the prejudices of their teachers. It is for this reason that the program teaches about clinical trials, particularly on how to judge the quality of a clinical trial and the reliance that can be placed upon it. The reviewer has clearly not reached the section of the program in which this analysis is applied to six trials of different alternative therapies to illustrate how medical students should approach such evidence and make judgments. I would rather see my medical students able to form their own judgments (about evidence-based orthodox and alternative therapies) rather than simply adopt the views of their teachers.

The reviewer's comment on the clarity of the learning objectives ("Who Cares?") is answered by student's repeated requests for such information when it is unavailable. Some teachers may not care about learning objectives though it would be normal to take these into account when reviewing a computer assisted *learning* program. Students however do value clear learning objectives which are perceived as improving the student learning experience as has now been appreciated by at least some of the units which scored poorly in the last QAA review process.

Patient's expectations of medicine are changing and we should be equipping our medical students so they can communicate better with their patients, have knowledge about the real world and can practice evidence-based medicine while considering each patient as an individual. I do not claim the program achieves all these aims but it does provide information about what is claimed for Alternative Therapies and helps medical students to make their own judgments.