

Acupuncture & Chinese Herbal Medicine at UCLAN: An Open Letter to Malcolm McVicar, Vice Chancellor

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Dear Malcolm

I am writing to express my grave reservations about the University's plans for new qualifications in Acupuncture and Chinese Herbal Medicine, in a franchise arrangement with the Northern College of Acupuncture, which were recently stage-one approved by the Academic Standards and Quality Assurance Committee (6 Feb 2008). I believe that these courses have no academic justification and would severely damage our reputation as a University.

Although acupuncture and herbalism have been practised in one form or another for thousands of years, most of what we now call "traditional" Chinese medicine (TCM) is actually quite a recent invention. It was concocted in the 1950s from a hotchpotch of folk myths and superstitions, by Maoist cultural revolutionaries desperate for a way to placate a poverty-stricken population in a vast country with few real doctors (Shapiro, 2008). Its origins as propaganda are clearly reflected in the ludicrous bias one finds in supposedly scientific research in China. For example, an analysis of studies of acupuncture published between 1966 and 1995 (Vickers et al, 1998) found that every single study conducted in China had produced positive results, compared with only 57% of those conducted in Europe/North America. Poor methodology and publication bias mean that the evidence base for TCM is astonishingly weak (Bausell, 2007). Ironically, while credulous Westerners have embraced TCM in recent years, its use in China is in decline as the country opens up to real scientific medicine (Shapiro, 2008).

So what can we really say about TCM? Firstly, let us be clear that its theory of disease is simply bogus. TCM rejects germ theory and all scientific notions of how the body functions. Instead it posits ideas such as yin and yang, the five elements, Qi energy, blocked meridians and so on, which have no basis in reality and which have never been supported scientifically. Secondly, it is clear that its methods of diagnosis are also bogus. For example, in pulse diagnosis the practitioner supposedly detects minute variations in the patient's heartbeat, while other methods rely on examining the eyes or tongue, or even smelling the patient. All are equally baseless. When more than one TCM practitioner examines the same patient, their diagnoses do not agree with one another at more than chance levels (Zhang et al, 2005). Thirdly, let's consider effectiveness. As I already mentioned, the evidence base for TCM is very weak, but there is enough for a broad scientific consensus to have emerged. In fairness, I should

point out that neither acupuncture nor herbalism rely upon paranormal effects. It is not unreasonable to expect that sticking needles into people will have some kind of effect upon them. Plants have evolved many interesting compounds and there are perfectly good reasons to study scientifically the effects that they may have in humans. In this respect both acupuncture and herbalism are certainly better than homeopathy, which has no credible method of action at all, since it involves “remedies” diluted way beyond the point where no atoms of the original substance remain. However, this does not mean that the effects of TCM are medically useful or even safe.

Let’s start with acupuncture. Modern acupuncture is not particularly dangerous for most people, if disposable sterile fine needles are used and if they are not inserted deeply. As I have already said, it is not unreasonable to believe that sticking needles into people will have some kind of effect upon them. It probably does this by stimulating the release of endorphins, which can have painkilling or intoxicating effects in the brain. However, it matters not a jot where the needles are stuck: study after study has found that needling the traditional pressure points has no more effect than random needling (Bausell, 2007, Singh & Ernst, 2008). Furthermore, all but the most recent research has been hampered by the difficulty of carrying out double-blind trials (it is very hard to fake sticking needles into someone, and even when it has been possible to use dummy needles to fool the patients, those administering the needles would certainly have known whether they were actually being inserted). In recent years, some more convincing dummy needles have been developed that do allow double-blinding, and studies using them suggest that the effects of needling are at best negligible and may be zero (Park et al, 2002, White et al, 2003). If you want to stimulate your endorphins, you would do better to take a brisk walk.

Next, herbalism. Chinese herbalism involves complicated mixtures of plant and animal tissues, which are normally taken as an infusion like tea. It is often very difficult to discover what, exactly, a preparation contains and in what amounts. This, combined with poor dosage control and frequent contamination (e.g. with poisonous metals or with factory-produced pharmaceuticals) makes Chinese herbalism far more dangerous than other forms based on single plants (Shapiro, 2008). It greatly increases the risk of side effects and dangerous interactions with other medicines. Placebo-controlled research is hampered by the strong and distinctive flavours of the infusions, so (as with acupuncture) the evidence base is very weak. High-quality research is needed to determine which (if any) preparations are safe and effective, and until this is done, any involvement in administering Chinese herbal compounds to patients would be simply unethical.

I hope I have made it clear that is it is at least possible, though difficult, to be scientific about TCM: there is certainly a real need for more research on acupuncture and herbalism, but it must be high quality research, conducted by people who understand research methodology and the importance of randomisation, placebo controls etc. There is a good example in York: the *Foundation for Research into Traditional Chinese Medicine* works with a number of Universities and has produced a long list of publications (<http://www.ftcm.org.uk/publicat.htm>) based on proper clinical trials. Sadly, this is *not* the York-based TCM institution with which UCLAN is collaborating! A glance at the Northern College of Acupuncture website (<http://www.chinese-medicine.co.uk>) suggests they are somewhat less scientific in their approach. There are many glowing endorsements of TCM (for example, the

homepage states that “acupuncture has an extraordinary ability to transform people's lives” and “Chinese herbal medicine provides powerful yet gentle ways to restore health”) but there is no sign of any critical analysis or scientific thinking. A Google site-search for the word “placebo” produces only one hit: an MSc abstract in which the student notes (to her credit) that her study had no control group. I can find no peer-reviewed research at all. Can such an institution provide a proper scientific education? The proposed courses are BSc, after all. I searched in vain through the course details for any reference to scientific methodology, research design or statistics. What the course outlines *do* contain is a roll-call of quackery, including cupping, moxibustion, auriculotherapy and therapeutic touch, none of which has any place in a science degree. There is virtually no real biology, except for a single second-year module on the acupuncture course called *Western Medicine in Context*, which promises to teach “the fundamentals of physiology and pathology in Western medicine”. Can that really be done properly in just one module? Is such limited science content really consistent with a BSc award?

I simply cannot understand how consideration of the “academic standards” of these courses could conclude anything other than that they are filled with superstitious nonsense that should have no place in any University worthy of the name. There seems to me to be something seriously wrong with our validation procedures if such courses can gain approval. Who decides what content is appropriate for a science degree? When I have made similar complaints about our homeopathy courses, I have been told that they are properly validated by the Society of Homeopaths, as if that meant anything. It cannot be right for acupuncturists to validate acupuncture courses, herbalists to validate herbalism courses, homeopaths to validate homeopathy courses and so on. By that logic, we could have a degree in any moronic idea so long as there is a National Morons Association to validate it.

UCLAN’s provision of courses in homeopathy and other complementary therapies has already earned us a great deal of negative media coverage in recent months (e.g. Colquhoun, 2007). Our hopes of being taken seriously as a research institution are being severely damaged by our association with such quackery, but now we are adding yet more bogus therapy to our portfolio. What’s next, astrology? Chiropractic? Psychic surgery? I believe it is time to call a halt. I implore you to act now to prevent further damage to UCLAN’s reputation, and to defend the scientific status of our BSc title. Please use whatever power you have to make sure that courses in TCM do not proceed through stage-two validation without proper consideration of their academic quality.

Yours sincerely,

Mike Eslea

References

I would especially recommend Rose Shapiro's book "Suckers", listed below, to anyone interested in complementary & alternative medicine. It's highly entertaining and utterly merciless. If you would prefer a more scientific evaluation, the Singh & Ernst book is probably the best starting point.

Bausell, R.B. (2007). *Snake Oil Science: The Truth About Complementary Medicine*. Oxford: OUP.

Colquhoun, D. (2007) Science degrees without the science. *Nature*, **446**, 373-374.

Park, J., White, A., Stevinson, C., Ernst, E. & James, M. (2002). Validating a new non-penetrating sham acupuncture device: two randomised controlled trials. *Acupuncture In Medicine*, **20**, 168-174.

Shapiro, R. (2008). *Suckers: How Alternative Medicine Makes Fools of Us All*. London: Harvill Secker.

Singh, S. & Ernst, E. (2008). *Trick or Treat: Alternative Medicine on Trial*. London: Bantam.

Vickers, A., Goyal, N., Harland, R. & Rees, R. (1998). Do certain countries produce only positive result? A systematic review of controlled trials. *Controlled Clinical Trials*, **19**, 159–166.

White, P., Lewith, G., Hopwood, V. & Prescott, P. (2003). The placebo needle, is it a valid and convincing placebo for use in acupuncture trials? A randomised, single-blind, cross-over pilot trial. *Pain*, **106**, 401–409.

Zhang, G.G., Lee, W., Bausell, B., Lao, L., Handwerker, B. & Berman, B. (2005). Variability in the Traditional Chinese Medicine (TCM) diagnoses and herbal prescriptions provided by three TCM practitioners for 40 patients with rheumatoid arthritis. *Journal Of Alternative And Complementary Medicine*, **11**, 415–421.