C123. Preparation for Lecture 10.

a) Transmission of Asian Medicine to Europe

The purpose of this lecture is to describe the different times and contexts in which Chinese medicine made the passage to the west. Notes are drawn largely from Bivins (2000). In the second half of the lecture we will explore issues that arise in the evaluation of traditional medicines.

Andreas Cleyer (1634-1698)
*Specimen Medicinae Sinicae*

Roberta Bivins identifies three distinct phases in the transmission of Asian medical ideas to Europe; 17th Century in which the Jesuits and surgeons working with the European trading companies first tried to explore the practices of China and Japan, the 18th and early 19th centuries in which scholars read translations of oriental texts and tried to assimilate them to existing and new theories in western knowledge and the late 20th century when European practitioners were able to travel to Asia to study for themselves. Each phase was characterised by the interest of key individuals, a fashion for orientalism and period of intense medical debate.

Bivins argues that the reception of acupuncture and moxibustion in Europe was subject to European medical debates such as those between ancient and modern learning, theoretical and empirical models of validation and the merits of surgery versus physical medicine.

The story of Acupuncture’s cross-cultural transmission begins with the surgeons of the Dutch East India Company in Japan and the Jesuit missions from Europe to China. In the process of transmission it is
clear that the practice of acupuncture became severed from its native Chinese theories. While Asian concepts such as Yin and Yang were translated into Western anatomical language.

Those pioneering spirits who first introduced Chinese medicine to Europe were mesmerised by Chinese conceptions of sphygmoology, which they both marvelled at, yet found ‘obscure’ and ‘phantastical’ (Kuriyama 2000).

The Jesuits went to Asia intent on the conversion of the heathen nations to Christianity. Their strategy was to win over the cultural elite of their host nations by the demonstration of the manifest superiority of Christian beliefs and the science and culture supported by the church. To do this they not only had to demonstrate their own technical expertise, their skills in astronomy becoming so highly prized that these experts were allowed to remain in China after the general expulsion of all Catholic orders in early 18th century, but also to study and engage with the culture of their hosts.

The Dutch East India Company arrived in the early 1600’s establishing their headquarters at Batavia in Java. Initially they adopted same standards of piracy that the Portuguese had a century before in the South China Seas: Fuzhou was pillaged and the Chinese on Java were massacred. However the value of their trade and technologies continued to grant them limited access in both China and Japan. Much of the experience leading to the early studies on Chinese medicine came from contact with Japan. During the Sui and Tang dynasties there had been a massive importation of all aspects of Chinese culture into Japan, which led to the preservation of much that was subsequently lost or changed in China.

Jacob de Bondt (1598 – 1631) a Danish Surgeon General for the Dutch East India Company wrote:

“The results (with acupuncture) in Japan which I will relate surpass even miracles. For chronic pains of the head, for obstructions of the liver and spleen, and for pleurisy, they bore through with a stylus made of silver or bronze and not much thicker than the strings of a lyre. The stylus should be driven slowly and gently through the above-mentioned vitals so as to emerge from another part, as I have seen in Java.”

The 17th century - Boym, Cleyer and Van Rhijne

Later in the century two more of the Surgeon-Generals at Batavia also studied Chinese Medicine:

In 1682 Andreas Cleyer (1634-1698) edited Specimen Medicinae Sinicae, a translation from an edition of Mai jie, the doctrine on the pulse of about the tenth century. There is a special section on the ‘ways’ or road in connection with the speed of circulation, but these are not really explained by Cleyer, which gave rise to the mistaken impression that they were supposed to be anatomical drawings.
In 1686 another translation of a treatise on the pulse by Michael Boym (1612-1659), an eminent Jesuit envoy and scholar, was published. A Polish Jesuit, Michael Boym was the son of an eminent physician in Ruthenia who arrived in China in 1645 and working there and in Hainan until 1649. He was seconded to the Ming court in exile (the Manchus having conquered the North in 1644) in Guangdong and Guangxi, leading members of which had then recently been converted to christianity.

Above all Boym was interested in medicine. He published Flora Sinesis in Vienna in 1656, the first description by any Westerner of plants of East Asia. He then translated a version of the 10th Century Maijue. It was this that was published in 1686 under the title Clavis Medica ad Chinarum Doctrinarm de Pulsibus, edited by Andreas Cleyer and Philippe Couplet. Jesuit scholars were accused of passing Boym’s writings improperly to Cleyer, and it must cast some doubt on the originality of Cleyer’s own previously published work.

Boym wrote of 12 regular tracts and of the circulations with quantitative measurements of distances, respiratory rates, stemming originally from the Yellow Emperor’s corpus. He provided several pictures of hands and wrists to illustrate pulse taking, but he didn’t identify the acutracts as Cleyer had done.
In 1683 Wilhelm ten Rhijne (c.1647-1700) a Dutch doctor in Japan wrote a dissertation on arthritis and acupuncture. Ten Rhijne concentrates on ‘flatus’ (wind) and the treatment as pain relief using the puncturing of distal points to allow the physical release wind through the needle holes - "letting out the breath”

Ten Rhijne had studied medicine in Germany and worked very closely with the famous anatomy and physiology teacher Francois de le Boë Sylvius (1614 - ?) in preparing a printed thesis on Hippocrates, which described how the Hippocratic text ‘On Ancient Medicine’ anticipated chemical theories.
Around 1670 ten Rhijne joined the Collegium Medicum, a society where physicians could develop good medical and business contacts and find out about the latest developments. Ten Rhijne practiced for a while in Amsterdam before leaving as a physician for Batavia in 1673.

He published on Gout for which he recommends moxibustion. The Japanese had extensive experience of treating gout, based on their understanding of qi. A reviewer of his works stated:

He asserts flatus or wind included between the periosteum and the bones to be the genuine producer of those intolerable pains….. And that all the method of cure ought to tend towards the dispelling those flatus. This wind he thinks is dry, cold and malignant, conveyed by the arteries to the place affected…

Ten Rhynne’s insistence on interpreting flatus as the cause of disease in his treatise of 1683 is behind his translation of qi as Wind; the needling lets out the wind. However the theory of winds, malevolent winds invading the body, translates into acupuncture is only for illnesses associated with winds and colds.

In July 1681, Ten Rhijne had written to Henry Oldenburg, the secretary of the ‘Royal Society for the Promoting of Natural Knowledge’, a society that brought together a select group of gentlemen and professionals who promoted the ‘new philosophy’ of experimental natural history, chemistry and medicine. His letter concerned a work of his on Japanese medicine. Six months after arriving in Batavia, he left for the trading post at Deshima, in the harbour of Nagasaki, where he remained for more than two years, ministering to the needs of the Dutch embassy and picking up what medical lore he could from his Japanese hosts.
Ten Rhijne wrote up an account of some of the new methods of healing he had encountered and sent copies of the ms to friends in Europe asking if the Royal Society wanted to examine the finished treatise for publication. There had been rumours circulating in elite London circles that moxibustion treatment was good for gout and so the time was ripe for more information about Asian medicine.

The Royal Society published ten Rhijne’s manuscript at their own expense, the published volume running to 334 pages, including chapters on the following:

i) An introduction by Busschoff
ii) Gout, including a section on its cure by caustics month them moxibustion
iii) Four Japanese diagrams showing the point to which the moxa and the acupuncture needles ought to be applied, together with a short description of Japanesse medical practice
iv) A discussion of acupuncture
v) An account of a pestilential fever that had struck a ship ten Rhijne was aboard
vi) Three assorted essays (on the antiquity and dignity of chemistry and botany, on physiognomy – the reading of a person’ character by his or her face – and on monsters)

Ten Rhijne recommended his subject:

Theory furnishes laws, and experience furnishes dexterity; the best practitioner is the one who, taught and trained with both theory and experience, is a master of his art. Cautery and acupuncture are the 2 primary operations among the Chinese and Japanese, who employ them to be free from every pain. If these two peoples were to be deprived of these two techniques, their sick would be in a pitiful state without hope of cure or alleviation."

The translation sequence from Chinese to Japanese to Dutch via Latin and finally to English meant much of the meaning became corrupted in transmission. Yin, for example, ended up as ‘veins’, Yang as ‘arteries’ while Chinese medical theories were almost inevitably, completely lost.

Some were scathing about the value of Asian medical ideas. In 1694 William Wooton, a contender in the quarrel between Ancients and Moderns (on the side of the Moderns) wrote of the illustrations as if the figures are anatomical drawings:

The Anatomical Figures annexed to the Tracts, which also were sent out of China, are so very whimsical, that man would almost believe the whole to be a banter….. This however does not prejudiced to their Simple Medicines…and it is possible that they may sometimes give not unhappy guesses in ordinary cases, by feeling their patients pulses.: still this is little to Physic, as
Englebert Kaempfer (1651 - 1716)

A German naturalist, who qualified medically in Sweden and then went to Persia, India and Ceylon, before taking service with the Dutch East India Company. In his inaugural dissertation at Leiden in 1694 describing a ‘decade of exotic observations’ we have two excellent descriptions of acupuncture and moxibustion as he observed it in the Japanese.

Describing the treatment for diarrhoea, with the loci therefore on the abdomen, he records the use of silver and gold needles which are twisted about when in place. The practitioner used slim tubes of brass with fine needles or to prevent the needle being driven in too far when tapped on the head with a delicate little hammer. He noted the depth of penetration was never more than an inch and usually about half that. He further noted the time that the needles were left in and that moxa was used on the same locii to treat colic.

Kaempfer was precise about the names of the points. Sixty acupoints being the most commonly used. He records 14 maxims about the treatment of a variety of affections with ten more dealing with conditions under which moxa should be done and two on contraception and infertility. On moxa his again is the clearest of any of the 17th century reports. He described the artemesia, as the best of all cautery material he had seen in Asia and that moxibustion is preferred to needles as a gentler and more familiar form of local cautery.
18th and 19th Centuries

By the end of the eighteenth century the tradition of discovery-scholarship was in decline and there was a challenge to the earlier ‘orientalism’ – basically coming from the establishment of a new science in Europe. The emphasis changes to how acupuncture might be explained in terms of the new ‘science’. The perception of acupuncture as a therapy founded on empirical knowledge brought this second wave of popularity when French experimentalists found therapeutic needling leant itself to the conditions of the new clinical medicine. Galvani’s 1791 report identified animal electricity or ‘galvanism’ as the active principle of the nerves, commonly discussed as fluids The emergence of new models of the body defined by a system of nerves and nervous fluid (galvanism) seemed to have resonated with the less material physiology of Chinese medical theory, explaining why in acupuncture local interventions could have systemic effects.

LVJ Berlioz ran the first known European clinical trials of acupuncture in 1810 in rural Bordeaux. The introduction to his study shows a distinct relish for the exotic. Berlioz believed in the nervous system as a mediator of Acupuncture effects. The results of his trials were presented in a paper given to the Societe de Medicine de Paris and were influential in interesting other experimentally inclined practitioners and clinicans, ‘acupuncture, in dissipating the attacks demonstrates that they arise from the nervous system’.

There follows a period of multiple interpretations in medical periodicals such as Lancet. In the early nineteenth century James Churchill’s widely distributed monograph Treatise on Acupuncture (1822), defined acupuncture by its analgesic effect, inspired a reaction in the British and Scottish medical press. Churchill consciously rejected exotica and orientalism, refused to speculate too much on theory, and distanced himself from animal magnetism which by this time had been ‘tarred with the brush of quakery and revolutionary radicalism. He saw acupuncture as lending itself to the European spirit of experimental enquiry with a focus on practice.

In 1826 The Lancet came down on the side of acupuncture. Discussions in British medical journals had assessed the subject with great rigour. The Patient’s testimony of relief not considered conclusive evidence and essential to the debate at that time was whether the effect was ‘psychosomatic’. 1828 - 77 saw a decline in academic interest with only isolated centres such as UCH and Leeds General Infirmary where experiments continued.

20th Century
**George Souille de Morant [1878 - 55]**

de Morant was educated in France by Jesuits, learning Chinese from the age of 8, he had wanted to be a doctor. Serving as Vice consul in Chinese city he was deeply impressed by the use of acupuncture treatment during a cholera epidemic. After training in Beijing and Shanghai, in 1908 Viceroy of Yunan certified him as a 'master of Physician of acupuncture’ He returned to France and wrote a synopsis of True Chinese Acupuncture, elaborating technical aspects of treatment and coined the terms “meridian”, “tonification” and “disperal”

see also [http://pacificcollege.edu/alumni/newsletters/summer2001/energy_meridian.html](http://pacificcollege.edu/alumni/newsletters/summer2001/energy_meridian.html)

However 20th century China was ravaged by warlordism, civil war and revolution for the first 50 years, and then closed to Europe from then on until the ‘opening up’ of China after the Cultural Revolution. During this time odd individuals brought acupuncture, rather than herbal treatments to Europe influenced by the practice of Japan, Taiwan, Hong Kong.

After the 1970’s Bivins analysis holds again (key individuals/orientalism/medical debate). This third phase of transmission dates to the late 70’s and 80’s when larger numbers of Europeans began to study in China. TCM was standardised as a body of knowledge and practice, with its textbooks and curriculum, which became the orthodoxy in Britain during the ’90s. This continues to the present day.

The world of European acupuncture leading up to the 90s was defined by just a handful of individuals who assimilated Chinese medical traditions in very diverse and idiosyncratic ways. It is not easy to know about this history. With often cult-like-pyramid teaching structures and a deliberate opacity about sources of information, unravelling the transmission of medical knowledge is tricky and few attempts have been made.

A specific style of practice developed by **JR Worsley** was taught at the College of Traditional Acupuncture in Leamington Spa from about 1975. According to the aural tradition in the school Worsley was influenced by teachers and textbooks from Taiwan and Japan. Many of his ideas can also be traced to *L’Acupuncture Chinoise* by George Souille de Mourant (1939: tr. 1994) but Worsley's practice was also fundamentally affected by his strong Christian beliefs.

Now in the face of legislation emphasis on standardisation, integration, systematisation, there are an increasing number of new text books (*The Foundations of Chinese Medicine. Maciocia 1987* is a widely used teaching text in the UK) and university courses such as those at the University of Westminster and the University of Middlesex.

b) The Evaluation of Asian Medicine
Now we come to consider the evaluation of Asian medicine. This raises a number of questions;

Should we evaluate, what is the purpose?
How do we establish the value of a medicine?
What are “Traditional Medicines”?
Are there issues about being ‘traditional’ that make the evaluation different?
Are the issues the same for all of them?
Should they be evaluated in the same as WM?
What is the history of evaluation of Chinese med.?

WHO figures tell us that in Africa 80% population use TM to meet their health care needs while in China TM accounts for approximately of 40% health care treatments.

The History of Evaluation of Traditional Medicines

Evidence Related Medicine in the Chinese Context

We saw in Lecture 7 the description of Shen Nong in the Huinanzi:

In ancient times the people ate grasses and drank from rivers; they picked fruit from trees and ate the flesh of molluscs and beetles. At that time there was much suffering from illness and poisoning. So the Divine Farmer taught the people for the first time how to sow and cultivate the five grains and to examine the suitability of the earth, to differentiate dry or waterlogged, fertile, high and lowland. He tasted the flavour of the hundred plants and the sweet or bitterness of river and spring; and he taught the people what to avoid and what to follow. At that time, on just one day he came across seventy poisons.

Thus one could say that the whole of Chinese medicine is founded on the spirit of empirical observation. Early recipe books often contained assessments of the prescriptions: you du 有益 or wu du 无益 related to degree of obvious pharmacological activity, yan 验 meant tested’ or ‘checked out’ to differentiate remedies, while Jia 佳 endorsed it as ’excellent’.

Lu and Needham considered “the whole acupuncture complex in terms of modern scientific knowledge,” believing that the scientific rationale of acupuncture would in due course be established. They proposed that there had been a golden age of empiricism in medical activity during the era of the foundation of classical theory, “correlative linkages probably originate in the attempts of the ancient physicians to systematise their vast fund of clinical observations”. The early Chinese “scientific spirit” they felt was ultimately stifled after the Tang period when ”abstraction trampled over empiricism” in the hands of those
more learned in astrological calculation than practical medicine. So Chinese medical philosophy simply provided a “trellis work to long clinical experience”.

An early record of a would be controlled trial appears in the Illustrated Canon of Materia Medica, 本草圖經

In order to evaluate the efficacy of ginseng, find two people and let one eat ginseng and run, and the other run without eating ginseng. The one that did not eat ginseng will develop shortness of breath sooner.

Research on Acupuncture
In the late 1950s acupuncture became a source of national pride in the field of science and technology. Acupuncture research became part of an important political campaign, making exaggerated claims inevitable. From the 60s to 80s extensive media coverage of acupuncture anaesthesia pushed acupuncture research into the consciousness of all Chinese. What could be more incontestable than the images of fully conscious, conversing patient in mid-operation? Subsequent research has shown that although electro-acupuncture has a definite analgesic effect, the results are less universally applicable than originally hoped. The optimum indications for applying the technique as part of a health-care programme have yet to be established and are not simply attributable to a greater tolerance of pain in the Chinese race or a greater susceptibility to hypnotism. During this period any European or American observer interested in acupuncture and moxibustion could not fail to be impressed with the reportage of acupuncture analgesia during major surgery.

Thirty years on, acupuncture analgesia barely survives in Chinese hospitals. Recent studies have equated the promotion of acupuncture analgesia with the Chinese nationalist desire to demonstrate the superiority of tradition in the face of Western scientific scrutiny. This nationalistic concentration hi-jacked the research effort.

The main phases of acupuncture research in China
1955 - 1972

- Exploring clinical application of acupuncture and summing up clinical experience;
- Launching acupuncture anaesthesia;
- Standardisation of acu-point location;
• Establishing the measurable nature of the channel system ---- skin electrical phenomena detected on the skin along the channels (Low resistance and high electrical conductivity known as "eu-coductivity points). 

1972 - 1980
• Wide application of acupuncture in clinic and some preliminary clinical trial;
• Experimental research into mechanisms of anaesthesia;
• Experimental research into therapeutic mechanisms of the acupuncture effect;
• Development of new acupuncture methods such as scalp-acupuncture, ear-acupuncture, and so on;
• Research into the measurable nature of the channel system------- Other phenomena along channels especially the phenomenon of the propagation of needling sensation along the channels (PSM). A number of hypothesis. (Such as Third equilibrium system)

In 1978 Deng Xiaoping’s new policy reforms gave high level attention to science and education. Master and PhD courses set up in universities of Chinese medicine and Western medicine to cultivate research mentality.

Lu and Needham reported on the body’s own ability to produce chemicals which combat stress and reduce inflammatory responses. Particularly attractive to them were the measurable effects of acupuncture as it stimulated the naturally occurring morphine analogues, corticosteroids and antibodies. Acupuncture and moxibustion, it seems, may trigger events in the hypothalmus, stimulating both pituitary and suprarenal cortex. That acupuncture operates largely through an endorphin-related mechanism is supported in the context of acute pain within an animal model demonstrating conclusively that acupuncture’s effects are sometimes related to the release of a variety of natural opioids and that this opioid-based effect is naloxone reversible. Pain relief by trigger point injection with bupicane is also reversed by naloxone. Equally impressive was the generation of antibodies through reticulo enothelial system which was likened to the stress mechanism insomuch that it created a stage of increased resistance and reduced inflammatory response. Thus there were reports of a four fold increase in typhoid and para typhoid antibodies after acupuncture, increasing further with electro-acupuncture.
The favoured approach in mainstream biomedical research remains that of studying elements of the segmental and non-segmental effects of acupuncture in their relationship to the structures involved in the central and autonomic nervous conduction - in other words the differentiation of local and distal effect according to whether the response is mediated through local or central nervous systems.

Neurophysiological mediation of the non-segmental effect of acupuncture has centred on "gating theories" where it has been posited that the pre-emptive stimulation of non-pain receptors inhibits neural exchange, preventing pain making its way up to the cerebral cortex. Where distal pain relief has been established through a pain suppressing system activated by needle stimulation at sites, regardless of whether they are acupuncture points or not, this is currently labelled DNIC (diffuse noxious inhibitory controls). DNIC is a non specific neurophysiological mechanism described by Le Bars whereby any noxious stimulant triggers a natural opioid system in both humans and animals. Decreased DNIC is consistent with decreased firing rates in the convergent interneurons in the affected segments of the spinal cord - compared with increases elsewhere.

For most involved in the general practice of acupuncture the field of research remains so narrow that it has little bearing on their own perception of personal clinical efficacy. Acupuncturists claiming to work with traditional models tend to treat a wide range of symptoms and expect a long term effect. The economic gains associated with development of new herbal products divert resources into drug trials and investment into acupuncture research declined substantially after 1990s.

Nevertheless, acupuncture treatment of musculo-skeletal pain and headache remains a significant area of research with encouraging research results emerging in the treatment of lower back pain, nausea and equivocal results for migraine.

http://www.ex.ac.uk/FACT/

Acupuncture & Risk

Rampes & James’ 1995 review of thirty years of case reports show 216 serious complications including several cases of pneumothorax and 1 death (when the acupuncture was self-administered) but recent
reports in September 2003 Journal of BMJ 323 suggest very minimal risk, lessening with increasing professional standards.

Chinese Herbal Medicine.

A there have been a number of serious adverse reactions in Europe mostly involving damage to liver and cardiac function. Just because medicines are “natural” does not make them safe, and concern has been raised again recently about the interaction of complementary with prescription drugs.

There is a general recognition of the idea that drugs, whether from the biomedical pharmaceutical or herbal trade should be quality controlled. But one of the problems is that the process of standardization will tend to be motivated by multinational companies and research institutes who will then move in on developing and marketing the product.

As we saw in Lecture 7, Chinese herbal prescriptions rely on the interaction for a cocktail of ingredients prescribed to meet a particular individuals needs, which makes testing for the efficacy of single active ingredients problematic.

This raises the further question of when does a traditional medicine lose its status and become biomedicine?

Again in lecture 7 we discussed the development of the traditionally used herb qinghao, artemesin, as an anti-malarial agent. The Wellcome Trust team based in Bangkok in 1979 was studying severe malaria in eastern Thailand when they chanced upon a study on qinghao in a Chinese Medical Journal.

The Wellcome Trust team were delayed ten years by Western health officials who wanted to produce their own version of the drug. Faced with an alarming decline in the effectiveness of mefloquine among refugee populations on the Thai Burmese border, the same researchers turned to the artemisinin compounds in combination with the failing drug. The ‘two-punch’ combination of drugs worked very well. Before these combination drugs were used in the camps, there was, on average, one case of malaria per person per year. Now this is down to one in ten per year and there are no signs of resistance from the parasite; indeed, the parasites isolated today are more sensitive than they were seven years ago.
With the backing of a US$4.7 million grant from the Bill and Melinda Gates Foundation, the Communicable Disease Control Department of the Thai Ministry of Public Health and the Faculty of Tropical Medicine, Mahidol University, are now extending this new control strategy throughout Tak province in north-western Thailand.

The anti-malarial will be jointly developed by South Korea’s Shin Poong Pharmaceuticals, the WHO’s Tropical Diseases Research Program and the Swiss-based Medicines for Malaria venture. Phase one clinical studies of the new drug were due to begin in the second quarter of 2003.

Professionalisation

The recent House of Lords Report on grading of alternative medicines placed ‘medical’ acupuncture in category 1 as opposed to Chinese medicine which was category 3. They made this decision in part on the basis of the availability of research on the validity and efficacy of alternative therapies. It was evidently felt that the research base relating to acupuncture used outside of the traditional context was more adequate than for some other therapies, including Chinese pharmacology.

The current debate about research perspectives in Chinese medicine is motivated by political, social and economic issues. In the absence of adequately constructed experiments, attempts to evaluate acupuncture, or to establish a biomedical/physiological explanation for its efficacy are largely anecdotal. By 2000 current attempts at evaluation have made faltering progress in framing the issues of efficacy.

Problems encountered can be classified as belonging to a number of categories including the theoretical issues of control, the single or double-blind trial, ethical problems experienced by acupuncturists in providing placebo acupuncture, standardisation of treatment by individual or by the tradition (s) of acupuncture. Distortion of information by the bias of researcher/patient is a common occurrence. It is also not possible to remove the results of any one trial from the context of its funding. The need to write research proposals to suit the board which will ratify them will inevitably reflect in the way the hypothesis is framed, which in turn influences researcher bias and the patients expectation.

Quality control in teaching is clearly very important, but runs against the historic plurality in traditional medicines. At present anyone in the UK can set themselves up as an acupuncturist. As referred to above
at the end of our outline on the transmission of Asian Medicine, there are now University taught courses on Chinese Medicine but it is still a fact that practitioners frequently do not agree on the individual elements of diagnosis.

Furthermore individual styles of practice and levels of individual competence are often ignored by traditional medicine professionals who wish to represent a normative view of their work, present a standardization of teaching and assessment, and to reproduce techniques within controlled situations.

What is the purpose of evaluation?

To ensure safety in practice.
To promote standardisation of training and treatments.
To assess mass provision of effective elements/practices.
To provide legitimation of individual practices.
To establish acceptable scientific explanations for efficacy
To transform models of evaluation, developing different and more appropriate methods of evaluation.

How do we establish the value of a medicine?

The duty of care in the NHS is to provide value for money but the reliance on double blind random control trials is not unproblematic; trials are expensive, time consuming and unrealistic to expect that every combination of drugs or complementary techniques can be tested.

Placebo

Many will argue that anything other than the needle, the informed choice of points, and the techniques of stimulation, are incidental features of the therapeutic encounter, and that the effect of the incidental elements must needs be psychologically mediated. But the notion of psychological mediation is also culture specific. Outside of the field of psychology where do we set the boundaries of the mind in the realms of human interaction? Can we not consider and evaluate the success of different forms of
traditional medical practice on their own terms, whether those terms are framed with reference to historical experience or through a closer comparison of the intention of the practitioner with a patient centred examination of treatment satisfaction.

Much progress has been made by psychologists in explaining the complex phenomena known as placebo. Many variables have been tested in attempts to characterize the typical placebo responders, but neither sociodemographic characteristics or intelligence and psychological profiling has yielded conclusive evidence. While Lu and Needham were wont to dismiss the placebo effect in the same terms as susceptibility to hypnosis, a number of different elements now add new dimensions to that analysis. Patient gratitude to the therapist, coupled with an eagerness to respond to the therapist expectation is thought to have significant effect. Where the practitioner demonstrates greater interest or confidence in the therapy, is of a higher status or uses higher technology intervention, the therapy gives a demonstrably better effect. The more radical the procedure, the greater the effect. Adherence to treatment procedure has been shown to be a significant indicator of effect. Remarkably, in one study, risk of death from myocardial infarction was greater in patients who took less than 75% of their prescribed medication whether the medication was a beta blocker or a placebo.

The importance of understanding a specific client or practitioner group is critical to the success of evaluation. There is apparently no evidence of an identifiable group equivalent to those that might be susceptible to hypnosis? On the contrary, a survey of people in Britain shows that those who chose to visit complementary therapists tend to be 67% female, of I and II social class and demonstrated better biological knowledge and a relatively greater conscious of health, environmental and dietary issues. Acupuncture patients in one survey demonstrated relatively higher degrees of practitioner loyalty and placed more importance on a healthy state of mind. Perhaps as a corollary to these findings acupuncture dealt with more psychologically based patients than did equivalent local GP practitioners - and this is an area of significant growth in current research into efficacy.

On the question of controlled trials we can develop our analysis from two directions. Firstly if it is valid to try to define the elements of acupuncture therapy that link to a desired therapeutic outcome, then it is theoretically possible to design trials that isolate and evaluate those elements. Secondly we must consider whether that assumption is valid, either in theory or practice.
Those involved in designing acupuncture trials still debate whether single or double blind trials are appropriate. Recently it has also been deemed necessary to establish a no treatment control, such as a wait list group to eliminate spontaneous symptom fluctuation and remission. In Complementary Medicine: A Research Perspective, Furnham and Vincent point out that double blind trials are not appropriate to any skilled intervention. They cite surgery as a parallel; at some point during the clinical encounter the practitioner, if they are a skilled professional, will become aware that they are giving a sham treatment. If they do not, then their skill must be called into question as well as their ability to participate properly in the trial i.e. either it is not truly blind or the practitioner is insufficiently trained to create the conditions necessary to simulate the treatment. Such conditions are bound to result in inadequate information.

Methods of control used to theoretically isolate the elements of true acupuncture, all discussed in Celestial Lancets, continue to include mock TENS, a form of transcutaneous nerve stimulation administered without the usual electrical current. Minimal acupuncture, where the patient is needled very superficially at sites where no classical acupoints exist, is a favoured option. The latter seems to mimic the conditions of acupuncture most effectively while isolating the specific choice of needling and acupuncture points for the real treatment. However superficial needling only gives information about effective sites of needling and does not exclude the important and pervasive ah shi "ah that's the place" techniques when a needle is inserted into the locus of pain. Nor does it account for Japanese styles of acupuncture which require minimal stimulation and sometimes no insertion at all.

Undoubtedly there is value in continuing the search for repeatable acupuncture prescriptions, regardless of context. More standardised acupuncture treatments will be linked with specific effects and consequently made amenable to hospital practice. The treatment of addiction with ear acupuncture is one relatively modern innovation where large numbers of patients are treated regularly by a relatively unskilled nursing staff. Machines will inevitably substitute for some of these treatments. Evidence linking acupuncture treatment on the anterior forearm (xinbao 心包 ) with the symptomatic relief of nausea has spawned a range of armbands that assist in travel sickness. But an accreditation of only those elements of acupuncture and moxibustion that are consistent with realities defined under the conditions and confines of biomedical trial will certainly do permanent damage to the conduct of the profession.
Adapted Studies

One study of depression undertaken in an Arizona hospital does at least attempt a proper definition of its form of acupuncture. The model introduces the idea of limited flexibility in treatment through the identification of a number of syndromes, commonly identified in standardised Chinese Medicine, as most common in depression. They then randomly allocate patients to a group receiving specific treatment for their depression or, alternatively, another valid treatment directed towards another perceived pattern of disharmony in their health. This protocol, which allows for differential diagnosis within a limited, and well defined choice of treatment options, represents one step towards clarifying conditions of trial by describing the therapy that is being tested.

Levelling the Playing Field.

We must also bear in mind the context that the current risk in Chinese Medicine is a drop in the ocean when compared to the problems of adverse events related to UK hospital treatment. If we are to believe the figures in BMJ2001: 322, surveying avoidable adverse events related to hospital treatment, a staggering 10% of medical and nursing records patients experienced adverse events - 1% of which with permanent impairment or death ensuing.

We should not take it as canonical that the double-blind clinical trial is an adequate standard for producing high quality information about what works and is of value for public health. Many drugs and techniques are unproven to deliver what they claim to, but are still meted out in common GP practice. That is not to say that they are ineffective, but that they are unproven.

To put the enterprise into perspective we should consider that rigorous controlled trials of biomedical interventions are not necessarily standard. The work of Professor David Eddy (summarised in R Smith BMJ 303 (6806), 155 – 6 ) suggests that only 15% of biomedical interventions are supported by solid scientific evidence and only 1% of articles in medical journals, despite their bias, stand up to scrutiny - many treatments have never been assessed at all. A double-blind controlled trial for by-pass surgery
proved the surgery ineffective, yet it remains a popular form of treatment for arteriosclerosis. The weakness and inconsistency of scientific evidence for many clinical interventions made by GPs fosters diversity and individuality in practice. But at this current juncture to reduce choice to treatments of proven effect would be inconsistent with mainstream biomedical practice and of dubious ethical standing in any health care system.

Readings


www.who.int/medicines/organisation/trm/wpe4.jpg

http://www.bbc.co.uk/radio4/science/other_medicine.shtml

House of Lords Report on Complementary Medicine:
http://www.parliament.the-stationery-office.co.uk/pa/ld199900/ldselect/ldsctech/123/12301.htm