The Incorporation of a Complementary Therapy by Australian General Practitioners: The Case of Acupuncture

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Complementary therapies may be rejected by doctors as quackery or incorporated as part of their practice, although such incorporation may be limited. In Australia acupuncture has been incorporated as a normal part of general practice, although it is not accepted as an orthodox technique. This incorporation is demonstrated through analysis of national data on acupuncture usage and through analysis of two surveys of general practitioners undertaken independently in the states of Tasmania and Victoria, Australia. Further, it is argued, from examination of interview and focus group responses, that experienced doctors turn to acupuncture to deal with patients who do not respond to orthodox therapies. This move is possible because the valuing of clinical judgement allows practitioners to suspend their scientific judgement of the therapy although they are uneasy about doing so.

Faced with patients using therapies that doctors are not taught in medical school, doctors have several options available to them. They can dismiss the therapeutic practices as quackery and exclude them from consideration. Alternatively they can adopt the practices themselves and incorporate them in their clinical practice. The adoption of the practices may involve reformulating them or renaming them so that they can be seen as medical rather than non-medical practices (Easthope, 1993). A prime example of this process can be observed historically in the renaming of mesmerism as hypnosis (Parssinen, 1979). Doctors can also accept such therapies if they are limited to particular maladies or particular parts of the body. Good examples of this are the historical limitation of dentistry to the mouth and, more recently, chiropractic's limitation to musculo-skeletal complaints (Baer, 1996), and the limitation of the claims of homoeopathy from a total medical system to a therapy that is useful for certain conditions such as migraine (Cant & Sharma, 1995).

In this article we look at acupuncture, a technique where renaming did not occur, and examine empirically whether the technique now constitutes a normal, if not yet orthodox, medical practice in Australia. We use the term normal practice to refer to the use of a therapeutic technique by orthodox doctors as a routine part of their clinical practice. Such usage may be direct, in that doctors may themselves utilise the technique, or it may be indirect through referral. In this article we are concerned solely with the direct usage of a technique. We use the term orthodox technique to refer to a therapeutic practice that is taught as a standard part of medical undergraduate or postgraduate training. Thus all orthodox techniques are normal techniques but not all normal techniques are orthodox.

Acupuncture intruded into the consciousness of Western orthodox medicine in 1972, although a form of it called needling had previously been popular in the USA in the nineteenth century (Englebracht, 1993). During President Richard Nixon's historic visit to China one of his entourage received acupuncture. This was widely reported and alerted many Western doctors to acupuncture, especially in the USA (Dimond, 1972) where doctors sought to limit its practice to only those with orthodox medical training (Wolpe, 1985), a move that was not successful (Baer, Jen, Tanassi, Tsia, & Wahbeh, 1998).

Since that date doctors throughout the world have increasingly used acupuncture. A summary of all the research on orthodox doctors' usage of alternative therapies, conducted by Astin and his colleagues (Astin, Marie, Pelletier, Hansen, & Haskell, 1998) shows that acupuncture usage now ranges from less than 10% of doctors in the United Kingdom through 20% in Sweden and New Zealand to over 50% in the USA.

In light of the widespread interest in acupuncture among physicians in the USA the National Institutes of Health (NIH) convened a conference of medical experts who produced a consensus document in 1998 (NIH, 1998) in which they suggested that acupuncture was efficacious for postoperative pain and nausea, and was useful as an adjunct or alternative treatment as part of a total management program for addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome and asthma. The (Australian) National Health and Medical Research Council following the NIH report recently recommended acupuncture for pain relief for headaches and postoperative pain (NHMRC, 1999).

Both the American and Australian medical recognition of acupuncture are selective. They recognise it primarily for its analgesic effects and they explain its effectiveness in terms of physiological processes. In so doing they limit it to a technical, therapeutic procedure independent of its origins in traditional Chinese medicine (Saks, 1994). The adoption of acupuncture consequently does not cause any challenge to, or reappraisal of, the fundamental assumptions of the biomedical paradigm that sees disease

as a malfunction of the body's biological mechanism (Gordon, 1988).

Methods

To ascertain if acupuncture is now a normal part of medical practice in Australia we examine four data sets. The first set is an analysis, carried out by the authors in 1998, of all claims for acupuncture submitted to the Health Insurance Commission in Australia since government funding was provided for the therapy. This is used to demonstrate the extent of acupuncture usage by general practitioners in Australia and its pattern of use over time.

To elicit doctors' perceptions and evaluations of acupuncture as a therapy we draw upon evidence from surveys undertaken in two Australian states. These constitute the second and third data sets. The first is a survey of all GPs in the state of Tasmania conducted by the authors of this article in 1997. All 473 identifiable GPs in Tasmania were surveyed using a self-completed, posted structured questionnaire. A total of 290 practitioners completed the questionnaire; a response rate of 62%. Respondents did not differ from the total population of GPs by sex or age nor did they differ by location or size of the practice in which they worked. This source is supplemented by results from a contemporaneous study undertaken in the state of Victoria of a random sample of 800 GPs which achieved a 64% response rate (Pirotta, Cohen, Kotsirilos & Farish, 2000). The Victorian researchers reported that their sample was representative of Australian GPs by sex, age and practice location.

To explore further general practitioners' understanding and evaluation of acupuncture a further set of data, in this case qualitative data, was elicited through interviews with five Tasmanian general practitioners who use acupuncture and two focus groups conducted in Tasmania (one of eight general practitioners, with five acupuncture users and one of nine general practitioners with five users).

Results

The extent of acupuncture usage

Some Australian doctors adopted acupuncture as a therapy in the 1970s and in 1984 it was funded through the government Health Insurance Commission. It was placed on the Medicare schedule as item 980 in 1984 and later rescheduled as item 173 in 1991.

Acupuncture is not well remunerated. In 1997-8, at the time of the surveys, interviews and focus groups, it attracted a fee of only $18.45 compared with the $21 paid for a standard 5-20 minute short consultation. However, insurance companies associated with the Motor Vehicle Board or the Workers' Compensation Scheme pay higher fees. Payments for acupuncture were also provided by one private health insurer as early as 1975, with ten companies now offering this therapy (Doran, 1999).

Estimates of the use of acupuncture through Health Insurance Commission records therefore almost certainly underestimate its usage by doctors. Nonetheless such records do provide accessible and reliable time series data on acupuncture claims. We therefore turned to them to see how far acupuncture was now a normal part of medical practice in Australia (Figure 1)

The fact that acupuncture usage has now stabilised at approximately 0.5% of all Medicare claims over the past five years suggests that it is now a normal part of medical practice.

The assessment of acupuncture as a therapy

In both the Tasmanian and the Victorian studies doctors were asked to assess the value of various complementary therapies. In Tasmania, doctors were asked to rate according to safety and therapeutic value. In Victoria the questions referred to a therapy's capacity to harm and its effectiveness. In both states acupuncture was clearly considered the safest and most therapeutically valuable therapy of a list of complementary therapies (Table 1).

Figure 1: Acupuncture as a proportion of all services

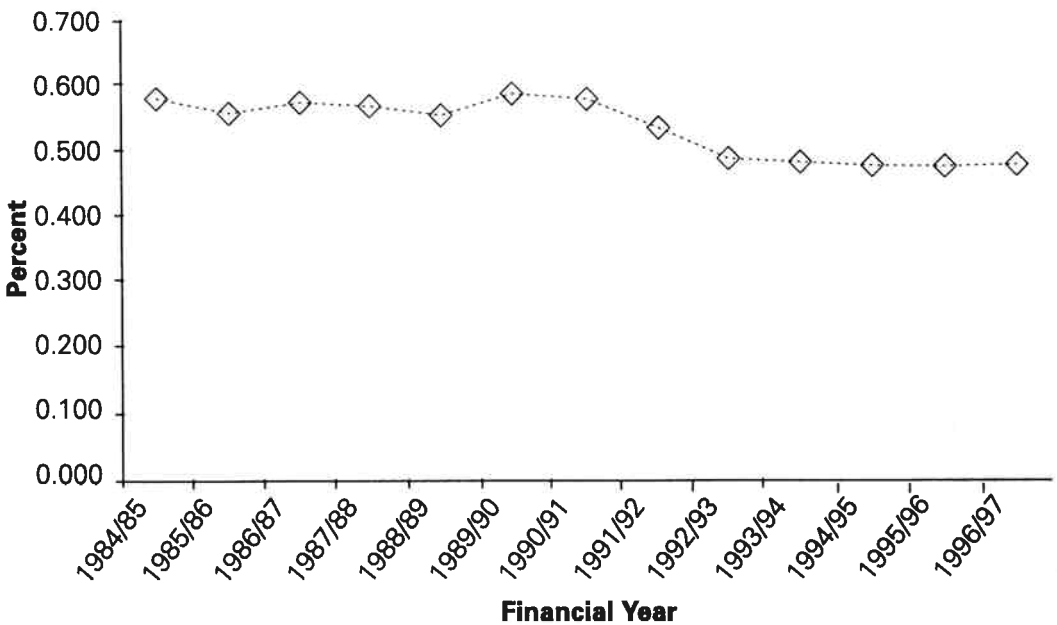

Table 1: Judgement of therapeutic value and safety of complementary therapies (per cent)

	Tasmania					Victoria
	GP & CT	Only CT	Only GP	No Referral	All	
Therapeutic Value						
Acupuncture	94	97	92	88	93	88
Massage	96	93	93	86	93	-
Hypnosis	95	97	89	80	91	78
Chiropractic	90	77	82	70	83	81
Feldenkrais	78	67	59	35	64	-
Osteopathy	78	54	43	37	60	39
Naturopathy	45	38	28	29	37	33
Safety						
Acupuncture	93	94	87	83	90	82
Massage	95	91	88	84	91	-
Hypnosis	72	77	62	56	67	63
Feldenkrais	74	57	62	52	65	
Chiropractic	48	50	26	34	41	17
Osteopathy	63	48	31	24	48	29
Naturopathy	44	41	31	33	39	34

Notes: Tasmanian responses to the following questions: 'In general, what do you believe to be the therapeutic value of the following therapies?' (Immense value + Some value) and 'In general, how safe do you believe the following complementary therapies to be?' (Very safe + Quite Safe)(n=290). Victorian responses for therapies that were moderately + highly effective, or seldom harmful (n=800). Tasmanian responses presented by type of referral (to GPs and complementary therapists, to complementary therapists only, to GPs only, no referral made). Victorian data are not broken down into type of referral.

Sources: Tasmanian General Practitioner Survey and Pirotta et al. 2000, p. 7, Table 1.

Justifications for using acupuncture

In the light of the results from the three data sets examined so far it is clear that acupuncture is a normal part of medical practice in Australia. However, it is not perceived as an orthodox therapy. Respondents in both Tasmania and Victoria did not challenge the listing of acupuncture as one complementary therapy among a list of such therapies and answered questions about it as a complementary therapy. Although a normal practice, it is not an orthodox practice; general practitioners do not use acupuncture as they use antibiotics. It is not part of the orthodox canon. As one general practitioner expressed it in a focus group:

> *There are some big meta-analyses of acupuncture with some of them coming up with the conclusion that acupuncture works and some of them coming up with the conclusion that acupuncture doesn't work, but you have to go looking for it...you are not going to get it in conventional medical literature. You are not going to get it in Harrison's. You are not going to get it in the conventional textbooks of surgery... .There just aren't a lot of references around... . I certainly couldn't find anything about it in the* [medical] *books I had at home.*

The incorporation of acupuncture is thus an uneasy incorporation; one that has to be justified by doctors using it, both to themselves and to their fellow doctors. That justification is achieved by two moves: a counter to the argument that acupuncture is non-scientific and, most importantly, an assertion of the primacy of clinical practice.

Science and acupuncture

Doctors using acupuncture are aware that the philosophy underlying acupuncture is non-scientific.

> *...because of this link with Chinese traditional medicine, which most people who have been trained scientifically find difficult to grapple with, it tends to be judged on the explanation that is given for it rather than on what has actually happened* (Interview Doctor B).

To deal with this criticism they mount several counter arguments. One route they take is to reformulate a possible scientific explanation:

> *We've had to actually think about it ourselves and try to come up with some sort of sensible explanation for what we're seeing rather than just taking the traditional Chinese explanation as being the truth... Acupuncture in certain individuals has a clear cut physiological effect... .You apply a selective stimulus to the nervous system which changes underlying patterns of activity... . Now I don't know about Yin and Yang. I don't think particularly about meridians. Most of the traditional Chinese stuff makes my head spin* (Interview Doctor B).

> *I'm happy with acupuncture because it fulfils, although it doesn't have all the scientific validity I'd like, there is more and more information coming through in terms of the endorphin effect and other sort of pathways that are stimulated by it* (Interview Doctor A).

> *One of the things is that the stimulation of points on the body can cause the brain and spinal cord to release certain very active chemicals, which are very much like the opiates we were using and that is how the endorphins were discovered, in research, in China* (Focus Group).

> *Physics has been neglected in medicine I think. Everything is chemistry and we are electrical beings and that [is] what acupuncture taps into: it's bioelectric*

medicine. By putting a needle in, making a hole in the skin, it drops the voltage and gets the current flowing and that's what you tap into (Interview Doctor C).

All of this Yin and Yang and so on is probably a lot of twaddle but there is no doubt whatever there is something about it that actually works, and some of it can in fact be explained by endorphins and on a scientific basis...and there has certainly been scientific experimental evidence to show that the use of acupuncture does cause definite physical changes within the body of the person[1] (Focus Group).

Another route is to question the scientific validity of much of medical practice:

it would be nice to have more [scientific backing] but then we've been using anaesthesia for many years without knowing exactly how it works (Interview Doctor A).

Perhaps more extreme, this can be a challenge to the notion of science held by medicine:

I don't use anything that I don't feel has some scientific basis for [it]. And it's not the medical scientific basis. They have a very narrow band of what they call a scientific basis... basically they say for something to work you have to have double blind crossover trials. Now I don't think that is always good for the patient (Interview Doctor C).

Now acupuncture has been going for 3000 years. Anyone Chinese who has had a full course of [training as an] acupuncture doctor, he's done it for four years. They bring him in and they have this figure and there's a whole lot of acupuncture points, and this is filled with wax in the hole[s]. Now he has to know exactly where they are, but not only that, he has to know exactly what the traditional use of it is for disease. Now that means for over 3000 years there have been trillions of similar observations and we have the nerve to say that is not science...the .... pressure is this double blind crossover trial and the mentality, which now says that statistics is a science. Now this is quite wrong. Statistics is a branch, a weapon of science... it is a wrong statement because it doesn't take in a situation where there are a lot of polysymptomatic multifactorial situations and we are going to have to get a new idea of what science is about (Interview Doctor D).

Clinical practice and acupuncture

Clinical practice is central to medicine. Clinical skill is seen as a professional attribute derived from clinical experience and in any argument between doctors, clinical experience counts for more than book knowledge (Light, 1979). In any diagnosis and treatment process the variability in the clinical experience of the individual doctor and the variability of the individual patient means that the outcome is always indeterminate. The institutions of professional medicine assert that clinical practice is an art and consequently it cannot be reduced to a set of technical procedures. If it could be so reduced doctors would no longer be professionals but technicians (Atkinson, Reid, & Sheldrake, 1977; Turner 1995).

The national population data show acupuncture users are more likely to be experienced doctors in the age range of 35-54 years (Easthope, Beilby, Gill, & Tranter, 1998), suggesting that doctors who use acupuncture are more likely to be experienced clinicians. The interview and focus group data also support this interpretation, as those doctors who use acupuncture assert they do so as experienced professionals looking for treatment for patients who have not responded to orthodox treatment:

I'd reached a stage in my career where...you can see what works and what doesn't work. I'm at a stage, I suppose where you have sufficient confidence in your own experience and knowledge to be able to make decisions...I came to acupuncture about 8 or 9 years ago and I have been using it most days since then and I suppose I spent the first six months shaking my head saying this shouldn't happen but it is happening (Interview Doctor B).

I saw the sort of thing I felt I couldn't treat very well...one of the big areas was musculo-skeletal things and your options were drugs and bed rest. And with bed rest a recent trial has shown that anything over three days bed rest for back pain is counter productive. That scotches that one...And the drugs were really anti-inflammatories... . [They] work OK in some people but long term you've got the substantial risk of ulcers and bleeding. I figured what I had on offer wasn't much good and that I'd look at a few alternatives I could use (Interview Doctor A).

The space provided by the fact that clinical practice is seen as an art not a science (Blaxter, 1978) allows doctors room to manoeuvre:

Medicine is an art and a science put together, that's the joy of medicine, a combination of the two and therefore that is the joy of acupuncture...you have got to make a Western style diagnosis and then you have a choice of how you want to treat that particular problem. Do you want to give a Panadol or do you want to treat using acupuncture? The armament [sic] of the way you treat patients is so broadened[2] (Focus Group).

The stress on the individual in clinical practice also provides room for acupuncture (and other complementary therapies) to be introduced:

I think one of the important principles that has tended to be lost in these days of double blind trials where drug companies are trying to prove that most people will get better if they take their drug, is the fact of the enormous variability of how we are inside, how we vary (Interview Doctor B).

Most important, clinical judgement is focused on clinical efficacy and clinical efficacy takes primacy over science:

For the first six months I took the approach where I offered it as a last resort... . It wasn't a research situation so I couldn't do it double blind. But I did keep figures for the first year...The way I kept figures was that I got the person to self-rate... and at the end the results were so impressive. I might have had 30% excellent and 40% moderate and 20% fair and 10%

failure which in medical terms was quite phenomenal...I said well OK it's not scientific, it's only anecdotal, but in my experience I'm happy with that and the patients were happy with it... .In the end it's whether a patient feels they have been helped and that's not a scientific criteria [sic] *but it's not a bad clinical one* (Interview Doctor A).

Conclusion

Both the national evidence and the evidence from the state surveys of general practitioners demonstrate that acupuncture is now an accepted therapy among most general practitioners in Australia. Although only 15% of general practitioners actually practice the therapy themselves most respondents in the state surveys considered it to be both effective and unlikely to be harmful.

Doctors who have adopted acupuncture as part of their practice, from the interview and focus group evidence, appear to have done so to increase the treatment options available to them, especially where other, more conventional treatment has proven ineffective. They feel empowered to use acupuncture, despite the fact that its use has not been validated by a double blind crossover trial. That empowerment comes primarily from their judgement as clinicians. They tried it and, in their clinical judgement, it worked. Its use is justified both in these terms and because clinical practice deals with varied individuals. To supplement their clinical judgement they refer to the fact that much medical practice has not been validated by double blind trials, that there is evidence of physiological change related to acupuncture, and some evidence of its effectiveness for certain conditions. Some challenge the scientific criteria used by medicine and suggest that medical science today is, in fact, far from scientific. However, the root justification for their use of acupuncture is personal clinical judgement.

Our interview and focus group data suggest strongly that clinical judgement is based on clinical experience. This suggestion receives further support from our Tasmanian survey data. When we asked GPs on what basis they made their judgements of (any) complementary therapies, they chose two answers: clinical experience and professional training, with those doctors using complementary therapies more than three times more likely to choose those answers than those who did not use such therapies.[3]

The part patients, as consumers of health care, play in making that clinical judgement can be important. As doctor A said "in the end it's whether a patient feels they have been helped and that's not a scientific criteria [sic] but it's not a bad clinical one." Further, analysis of the Tasmanian survey, reported elsewhere (Easthope, Tranter, & Gill, 2000a), found one of the key influences on doctors' positive attitudes toward complementary therapies in general was patient endorsement of their therapeutic value.

Whatever the part patients play, it is clear that clinical experience is vital in judging complementary therapies and it is on the basis of clinical experience that many GPs in Australia have chosen to use acupuncture (Easthope et al., 1998) or to refer patients for it (Easthope, Tranter, & Gill, 2000b). The result is that the provision of acupuncture by individual general practitioners in Australia is now incorporated into medical practice as a normal if not orthodox therapy.

Notes

1. A similar statement was made by one of Cant and Sharma's (1996, p. 583) homeopathic practitioners who said "we skip over the vital force and try to avoid the Organon...we have to interpret homeopathy according to our modern understandings" (1996, p. 583).
2. Similar statements were made by homeopaths interviewed by Cant and Sharma (1996, pp. 584 & 585): "Homeopathy is both a science and an art" and "homeopathy is another tool in the bag".
3. Odds ratio for clinical experience is 3.60 (significant at 5% level) and for professional training is 3.43 (significant at 1% level).

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