

# Characteristics of Victorian general practitioners who practise complementary therapies

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**BACKGROUND** To compare the characteristics of Victorian general practitioners who practise and do not practise complementary therapies.

**METHOD** A self administered postal survey sent to 800 Victorian GPs.

**RESULTS** The response rate was 64%. There were no statistically significant differences between complementary therapy practitioners and nonpractitioners in the number of patients seen per week, urban versus rural location, solo versus group practice or Fellowship of the Royal Australian College of General Practitioners. In some complementary therapies, practising GPs tended to be male, full time and older.

**DISCUSSION** Victorian GPs who practise complementary therapies are on the whole not from the fringes of the medical community. The reasons why GPs include complementary therapies in their practice cannot be answered by this study

There is increasing interest in the past two decades about the use of complementary therapies by general practitioners. We have previously shown that nearly 20% of GPs practise one of a range of complementary therapies, 8% used two, 6% three and 3% between four and 11.<sup>1</sup>

Many GPs practise complementary therapies (Table 1).<sup>2-18</sup> In the UK the number of GPs practising, and the type of complementary therapies used, has been fairly constant over 15 years. The number of GPs practising complementary therapies is markedly more in Germany and the Netherlands than in other countries. It is more popular in Australasia than in the UK. The popularity of therapies varies markedly between countries. For example, 15% of Australian GPs practise

acupuncture,<sup>12</sup> whereas only approximately 5% of UK GPs do so.

Some of these studies compared the characteristics of those who practise complementary therapies with those who do not. In the UK,<sup>3</sup> Canada<sup>8,9</sup> and the Netherlands,<sup>16</sup> the tendency is for GPs using complementary therapies to be male, younger, in solo practice and to be foreign born or medically qualified overseas. Verhoef and Sutherland suggested that perhaps solo doctors are more 'individualistic' than those in group practice, and less subjected to peer review.<sup>9</sup>

Younger solo UK male GPs are more interested in training in therapies,<sup>3</sup> although no age association was found for practising, they may have been more exposed to education about complementary therapies in their training. We

attempted to compare the characteristics of GPs who practise complementary therapies with those who do not.

## Methods

The Health Insurance Commission supplied a random sample of 800 Victorian GPs, who had each seen at least 1500 patients in 1996. A new survey was designed to investigate GPs' interactions with acupuncture, aromatherapy, chiropractic, herbal medicine, homoeopathy, hypnosis, meditation, naturopathy, osteopathy, reflexology, spiritual healing, (eg. Reiki) and vitamin and mineral therapy. These modalities were chosen after discussion with opinion maker GPs working in the field and active in complementary therapy circles in Victoria. The survey questions were refined after a

**Table 1. Studies of GPs practising complementary therapies worldwide**

| Author                        | Year published | Country | Sample size                                     | Response rate % | % Practise           | Characteristics of practitioners of complementary therapies (CTs)                           | Types of therapies practised  |
|-------------------------------|----------------|---------|---|-----------------|----------------------|---|---|
| Wharton et al <sup>2</sup>    | 1986           | UK      | 200 – random sample in Avon                     | 75              | N/A                  |   | Spinal manipulation 23%<br>Spiritual healing 7%<br>Hypnosis 5%<br>Homoeopathy 5%<br>Acupuncture 3%<br>Herbal medicine <1%                     |
| Anderson et al <sup>3</sup>   | 1987           | UK      | 274 – all GPs in Oxfordshire                    | 81              | 16                   | Practitioners more likely to be male, solo. No age association                              | Manipulation 4.7%<br>Hypnosis 3.3%<br>Acupuncture 2.2%<br>Psychotherapy/homoeopathy/meditation ~1% each                                       |
| Perkin et al <sup>4</sup>     | 1994           | UK      | 100 – random sample of GPs                      | 87              | 20                   |   | Homoeopathy 9%<br>Acupuncture 8%  |
| White et al <sup>5</sup>      | 1997           | UK      | 972 – all GPs in Devon & Cornwall               | 47              | 16                   |   | Homoeopathy 5.9%<br>Acupuncture 4.3%<br>Manipulation 2.8%   |
| Perry et al <sup>6</sup>      | 2000           | UK      | 252 Liverpool GPs                               | 52              | 13% in the last week |   | In the last week:<br>Homoeopathy 6%<br>Acupuncture 3%<br>Chiropractic/herbalism/hypnotherapy/aromatherapy each 1%                             |
| Thomas et al <sup>7</sup>     | 2001           | UK      | 1226 English GP partnerships                    | 79              | 21% of partnerships  |   | Offered by practices:<br>Acupuncture 12.5%<br>Homoeopathy 6.7%<br>Hypnotherapy 5.5%<br>Osteopathy/chiropractic 2.0%<br>Medical herbalism 1.8% |
| Goldszmidt et al <sup>8</sup> | 1995           | Canada  | 200 – random sample of GPs in Quebec            | 73              | 13                   | Practitioners more likely to have been born outside of Canada                               | No breakdown by therapy, but most popular in training was acupuncture (6.6%)  |
| Verhoef et al <sup>9</sup>    | 1995           | Canada  | 384 – random sample of GPs in Ontario & Alberta | 52              | 16                   | Practitioners statistically more likely to be male, younger, solo and to refer to other CTs | Commonest hypnosis and acupuncture – no figures   |
| Hadley et al <sup>10</sup>    | 1988           | NZ      | 226 – all GPs in Wellington                     | 77              | 27                   | No difference by gender   | Acupuncture 10%<br>Chiropractic 6.4%<br>Hypnosis 3.5%<br>Spiritual healing 3.5%<br>Osteopathy/naturopathy/homoeopathy all 2.3%                |

Table 1. Studies of GPs practising complementary therapies worldwide continued from page 1134

| Author                       | Year published | Country     | Sample size   | Response rate % | % Practise                                    | Characteristics of practitioners of complementary therapies (CTs)                                       | Types of therapies practised  |
|------------------------------|----------------|-------------|---|-----------------|---|---|---|
| Marshall et al <sup>11</sup> | 1990           | NZ          | 370 – random sample of GPs in Auckland              | 67              | 30  | No difference by age or gender  | Acupuncture 21%<br>Osteopathy 6.8%<br>Homoeopathy 3.6%<br>Naturopathy 2.8%<br>Herbal medicine 1.6%  |
| Easthope et al <sup>12</sup> | 1998           | Australia   | All nonspecialists Health Insurance Commission data | N/A             | 15  | More likely to be male, aged 35-54, and to have non-Australian primary qualification                    | **Acupuncture only  |
| Hall et al <sup>13</sup>     | 2000           | Australia   | 400 at random from AMA Perth database               | 75              | 38  | Those who had trained: male and over 45 years   | Acupuncture 35%<br>Spinal manipulation <1%<br>Hypnosis <<1%   |
| Himmel et al <sup>14</sup>   | 1993           | Germany     | 71 – all GPs in Kassel                              | 56              | 95  |   | Herbal medicine 77.5%<br>Neural therapy 65%<br>Homoeopathy 45%<br>Chiropractic 20%<br>Acupuncture 15%   |
| Munstedt et al <sup>15</sup> | 2000           | Germany     | 310 GPs and 1810 oncologists                        | 81% (GPs)       | 73% for cancer patients (GPs) GPs>oncologists | Combined sample: older (>40), male, GPs>oncologists   | Combined sample for cancer patients: Homoeopathy 25%<br>Megavitamins 24%  |
| Visser et al <sup>16</sup>   | 1990           | Netherlands | 600 random GPs                                      | 60              | 47  | Younger, know more about alternative medicine, have more positive attitudes toward alternative medicine | Homoeopathy 40%<br>Manipulative medicine 9%<br>Acupuncture 4%<br>Naturopathy 4%   |
| Schachter et al <sup>1</sup> | 1993           | Israel      | 100 first to pass exams in GP                       | 89              | 13  | N/A   | N/A   |
| Berman et al <sup>18</sup>   | 1995           | USA         | 295   | 61              | N/A   | N/A   | Massage therapy 35%<br>Hypnotherapy/prayer each 31%<br>Chiropractic 27%<br>Acupuncture/acupressure 14%<br>Megavitamins 14%<br>Herbal/electromagnetic each 7%<br>Homoeopathy 5%<br>Native American medicine 4% |

N/A = Not available

**Table 2. Demographic characteristics of GPs who practise complementary therapies**

| Therapy                        | Percentage of GPs who practise complementary therapies |              |   |              |
|--------------------------------|--|--------------|---|--------------|
|                                | Gender   | Significance | Full or part time                                   | Significance |
|                                | N (% of GPs)   | (P)          | N (% of GPs)  | (P)          |
| Acupuncture                    | Male = 57/272 (21)<br>Female = 10/116 (9)              | <0.01        | Full time = 75/383 (20)<br>Part time = 8/105 (8)    | <0.01        |
| Meditation                     | Male = 34/272 (13)<br>Female = 13/116 (11)             | 0.07         | Full time = 54/383 (14)<br>Part time = 13/105 (12)  | 0.65         |
| Hypnosis                       | Male = 26/272 (10)<br>Female = 6/116 (5)               | 0.15         | Full time = 28/383 (7)<br>Part time = 10/105 (10)   | 0.45         |
| Vitamin and mineral therapy    | Male = 28/272 (10)<br>Female = 12/116 (10)             | 0.99         | Full time = 45/383 (12)<br>Part time = 10/105 (10)  | 0.52         |
| Chiropractic or osteopathy     | Male = 26/272 (10)<br>Female = 4/116 (3)               | 0.04         | Full time = 28/383 (8)<br>Part time = 8/105 (8)     | 0.99         |
| Herbal medicine or naturopathy | Male = 34/272 (13)<br>Female = 13/116 (11)             | 0.72         | Full time = 51/383 (13)<br>Part time = 11/105 (10)  | 0.44         |
| Any therapy                    | Male = 104/272 (38)<br>Female = 27/116 (23)            | <0.01        | Full time = 144/383 (38)<br>Part time = 27/105 (26) | 0.024        |

focus group with GPs and pilot testing. The study received ethics approval from both the University of Melbourne and Monash University.

The survey was mailed to the sample with a reply paid envelope. Nonresponders were sent a reminder postcard and a follow up survey if necessary. Exclusion criteria were doctors who had left their clinic with no forwarding address, taken extended leave, were seriously ill, had moved overseas, retired or died. Multiple logistic regression analyses were undertaken.

## Results

Thirty-six subjects were excluded from the denominator, according to the exclusion criteria. Questionnaires were returned by 488 GPs (response rate 64%). The sample was representative of Australian GPs in all important characteristics, except that those seeing more than 200 patients per week were under represented in the survey group. There was no significant difference in age or gender between responders and nonresponders.<sup>19,20</sup>

The results of herbal medicine and naturopathy, chiropractic and osteopathy have been grouped because of small numbers (Table 2, 3).

We compared GPs who practised complementary therapies with those who did not. There were no significant differences in the following characteristics: number of patients seen per week, urban versus rural location, solo versus group practice, or Fellowship of the Royal Australian College of General Practitioners. There were significant differences in gender and full time versus part time status (Table 2). There was also a trend for practitioners of chiropractic/osteopathy to be older ( $P<0.05$ ).

A step-wise regression analysis was also performed examining age, gender and location of practice (urban versus rural). Numbers were too small to compare solo versus group GPs. Only therapies which at least 10% of the practitioners practised (acupuncture, meditation, hypnosis, and vitamin and mineral therapy, and practitioners of any of the total list of therapies) were analysed as low numbers render multi-

variable techniques unstable. After adjusting for age and location, women were less likely to practise either acupuncture (OR: 0.37, CI: 0.18–0.77) or any of the grouped complementary therapies (OR: 0.48, CI: 0.29–0.79). There was no significant difference in age, gender or location of practice for practitioners of meditation or vitamin and mineral therapy.

General practitioners using any of these therapies were significantly more likely to view education about complementary therapies in undergraduate curricula as important.

Participants were asked whether Medicare rebates should be available for complementary therapy, assuming it was appropriate for a GP to practise it. There was no significant difference between practitioners of acupuncture, hypnosis and chiropractic, and nonpractitioners. Practitioners of all other therapies were significantly more likely than nonpractitioners to agree that Medicare rebates should be available for their therapy.

Practitioners and nonpractitioners of

**Table 3. Positive exposures to complementary therapies practitioners compared with nonpractitioners**

| Therapy                           | Percentage of GPs exposed positively or not by various influences, by whether they practise complementary therapies (P) or not (NP) |                 |       |                |                           |       |                |                 |  |                |                |       |   |                |       |       |  |  |  |
|-----------------------------------|---|-----------------|-------|----------------|---------------------------|-------|----------------|-----------------|--|----------------|----------------|-------|---|----------------|-------|-------|--|--|--|
|                                   | Media<br>N (% of GPs)   |                 |       |                | Anecdotes<br>N (% of GPs) |       |                |                 | Colleagues<br>who practise<br>N (% of GPs) |                |                |       | Personal<br>treatment by a<br>medically trained<br>complementary<br>therapist<br>N (% of GPs) |                |       |       | Personal<br>treatment by a<br>nonmedically trained<br>complementary<br>therapist<br>N (% of GPs) |  |  |
|                                   | P   | NP              | (P)   | (NP)           | P                         | NP    | (P)            | (NP)            | P  | NP             | (P)            | (NP)  | P   | NP             | (P)   | (NP)  |  |  |  |
| Acupuncture                       | 26/83<br>(31)   | 86/405<br>(21)  | 0.05  | 43/83<br>(52)  | 186/405<br>(46)           | 0.33  | 44/83<br>(53)  | 166/405<br>(41) | 0.04                                       | 24/83<br>(29)  | 44/405<br>(11) | <0.01 | 21/83<br>(25)   | 49/405<br>(12) | <0.01 | <0.01 |  |  |  |
| Meditation                        | 19/67<br>(28)   | 93/421<br>(22)  | 0.26  | 43/67<br>(64)  | 186/421<br>(44)           | <0.01 | 44/67<br>(66)  | 166/421<br>(39) | <0.01                                      | 18/67<br>(27)  | 50/421<br>(12) | <0.01 | 22/67<br>(33)   | 48/421<br>(11) | <0.01 | <0.01 |  |  |  |
| Hypnosis                          | 11/38<br>(29)   | 101/450<br>(22) | 0.36  | 24/38<br>(63)  | 205/450<br>(46)           | 0.04  | 27/38<br>(71)  | 183/450<br>(41) | <0.01                                      | 8/38<br>(21)   | 60/450<br>(13) | 0.19  | 13/38<br>(34)   | 57/450<br>(13) | <0.01 | <0.01 |  |  |  |
| Vitamin and<br>mineral therapy    | 22/55<br>(40)   | 90/433<br>(21)  | <0.01 | 35/55<br>(64)  | 194/433<br>(45)           | <0.01 | 32/55<br>(58)  | 178/433<br>(41) | 0.01                                       | 17/55<br>(31)  | 51/433<br>(12) | <0.01 | 20/55<br>(36)   | 50/433<br>(12) | <0.01 | <0.01 |  |  |  |
| Chiropractic or<br>osteopathy     | 7/30<br>(23)  | 105/458<br>(23) | 0.96  | 16/30<br>(53)  | 213/458<br>(47)           | 0.2   | 18/30<br>(60)  | 192/458<br>(42) | <0.01                                      | 12/30<br>(40)  | 56/458<br>(12) | <0.01 | 12/30<br>(40)   | 58/458<br>(13) | <0.01 | <0.01 |  |  |  |
| Herbal medicine<br>or naturopathy | 10/25<br>(40)   | 102/463<br>(22) | <0.01 | 18/25<br>(72)  | 211/463<br>(46)           | 0.015 | 17/25<br>(68)  | 193/463<br>(42) | <0.01                                      | 13/25<br>(52)  | 55/463<br>(12) | <0.01 | 15/25<br>(60)   | 55/463<br>(12) | <0.01 | <0.01 |  |  |  |
| Any therapy                       | 48/171<br>(28)  | 64/317<br>(20)  | 0.05  | 91/171<br>(53) | 138/317<br>(44)           | 0.05  | 93/171<br>(54) | 117/317<br>(37) | <0.01                                      | 40/171<br>(23) | 28/317<br>(9)  | <0.01 | 41/171<br>(24)  | 29/317<br>(9)  | <0.01 | <0.01 |  |  |  |

complementary therapies were compared by their positive, neutral and negative exposures to complementary therapies through the media, anecdotes from patients, family or friends, colleagues who practise, or through their own personal treatment by a medically trained or non-medical therapist (Table 3).

## Discussion

Victorian GPs who practise complementary therapies seem to have much in common with nonpractitioners. As in several of the international studies, there was some male predominance. Victorian practitioners of any of the grouped complementary therapies and of acupuncture alone were more likely to be full time males, and practitioners of 'physical therapies' were more likely to be older men, confirming earlier Australian data.<sup>12</sup> It is interesting to speculate on this. Perhaps physical therapies such as chiropractic and osteopathy require the physical strength of male doctors, and if complementary therapies require more time for consultations, it may be more difficult for part timers.<sup>21</sup>

It is hardly surprising that users of these therapies were more likely to agree that education about them should be included in undergraduate medical curricula. The lack of difference between practitioners and nonpractitioners regarding more accepted therapies such as acupuncture, hypnosis and chiropractic attracting Medicare payments suggests acceptance among nonpractising GPs. Indeed the provision of a Medicare rebate for the practise of acupuncture has probably contributed to its popularity among Australian GPs compared to other Western countries.<sup>12</sup>

General practitioners who practise these therapies are not from the fringes of the medical community but are part of its mainstream. Why GPs decide to become involved in these nonorthodox and largely unscientific therapies cannot



be answered from these data. The place of evidence based medicine (EBM) in the decision to practise these therapies has been little investigated. Some Scottish GPs regarded the practise of EBM as a direct threat to their clinical autonomy, which was countered by the incorporation of complementary therapies into their practice.<sup>22</sup>

Now many GPs practise many complementary therapies, there is an urgent need to undertake the necessary trials to inform us of any value they offer.

### Acknowledgments

Thanks to Jane Gunn and Ngaire Kerse for advice, to Eleni Sita and Sue Vallance for research assistance, and the following who provided research funds: Dr I Brighthope, Blackmores Ltd, Aveda, Nutrition Care Pharmaceuticals and the Australian Integrative Medicine Association.

Conflict of interest: none declared.

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### Implications of this study for general practice

- Complementary therapies are practised by GPs in many Western countries.
- Australian GPs who practise these therapies are more similar than dissimilar to their nonpractising colleagues.
- The popularity of these therapies among both GPs and patients necessitates further research into their effectiveness to inform decision making.

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