

# Complementary medicine and general practice in an urban setting: a decade on

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**Aim:** To conduct a follow-up survey ascertaining changes in usage, referral rate, beliefs and attitudes towards complementary and alternative medicine (CAM) during the last decade. **Background:** In many countries, CAM use is reported to be substantial and increasing. **Methods:** A questionnaire was posted to all GPs registered with the Liverpool Primary Care Trust. Respondents were asked whether they treat, refer, endorse or discuss eight common CAM therapies and about their views on National Health Service (NHS) funding, effectiveness, CAM training needs and theoretical validity of each therapy. Comparisons were made between these results and those collected in 1999. **Findings:** The response rate was low (32%) compared with the 1999 survey (52%). The main findings were similar to the most popular therapies still being acupuncture, hypnotherapy and chiropractic and the least being aromatherapy, reflexology and medical herbalism. GPs felt most comfortable with acupuncture, with greater belief in its theoretical validity, a greater desire for training and a greater support for acupuncture to receive NHS funding than for the other CAM therapies under question. Opinions about homeopathy had become less supportive. Overall, GPs were less likely to endorse CAMs than previously shown (38% versus 19%).

**Key words:** attitudes; complementary medicine; general practitioners; survey

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## Background

In many countries, complementary and alternative medicine (CAM) use is reported to be substantial and increasing (Xue *et al.*, 2007; Barnes *et al.*, 2008). The reasons for CAM's popularity seem complex and reflect patients' concerns about the iatrogenic effects of medical technologies (Lupton, 1994), and the belief that treatments considered 'natural' are implicitly safe (Ernst, 2006). In the United Kingdom, use of practitioner-provided CAMs and over-the-counter CAM therapies is substantial, even among those taking prescription drugs (Hunt *et al.*, 2010). A UK wide survey in 1995, conducted

on GP usage of CAM therapies, found that almost 40% of all general practices offered some form of access to CAMs for their National Health Service (NHS) patients, with the NHS paying for 70% of the treatment (Thomas *et al.*, 2001). In 2001, this had risen to one of two practices in England offering their patients some access to CAMs (Thomas *et al.*, 2003). The change was because of increased provision in-house, as the proportion of practices making NHS referrals remained unchanged. The amount the NHS paid for services dropped to around 60%.

As many CAM treatments remain available through the NHS, ([http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_082579.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_082579.pdf), 2009) reliable, nationally representative and up-to-date population CAM usage data are relevant for

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policymakers and for helping guide-funding decisions in general practice. Such data were recently obtained as part of the 2005 Health Survey for England (Department of Health, 2006), which is the largest survey of CAM use in England to date. Findings indicate that the lifetime and 12-month prevalence figures of CAM use in England are 44% and 26%, respectively. These data serve as a valuable reminder to medical practitioners to ask patients about CAM use and that this information should be routinely collected to facilitate prioritisation of the research agenda in CAM (Hunt *et al.*, 2010). Our survey is the first to investigate changes over a 10-year period. Its aim was to determine how GP usage, referral rates and beliefs in CAM have changed during the last decade and what in-house provisions are in place to meet the patient demand for CAM therapies.

## Method

A postal questionnaire was adapted from the one used in 1999 (Perry and Dowrick, 2000) with the inclusion of two additional questions (whether they ask about patients' personal use of CAM as part of routine case-taking and whether they use any CAM on themselves). The original questionnaire was based on those previously used by Wharton and Lewith (1986) and White *et al.* (1997). It was sent to all GPs registered with the Liverpool Primary Care Trust in January 2010. Electronic reminders were sent at three weeks and a further postal drop three months later. Responses were entered and analysed using SPSS.

## Results

Questionnaires were posted to 242 GPs of which 78 returned the form (32%), whereas the response rate to the 1999 survey was (131/252) 52%. The response rate was slightly higher among female GPs (36% versus 29%), if taken as a proportion of the Liverpool GP population. There was no age difference of responders; 19/48 (40%) were younger doctors (<40 years) and 33/83 (40%) were older doctors (>50 years old).

### The use of complementary therapy

Eight GPs (four practices) had a non-medical CAM practitioner on site. Nineteen per cent (15/78)

of respondents reported regularly using some form of CAM in practice, most commonly acupuncture (14%), homeopathy (4%) and hypnotherapy (4%). Other therapies mentioned included spinal manipulation and spiritual healing. In 1999, 18% of responders reported regularly using some form of CAM, most commonly homeopathy (Table 1).

During the previous week, 56.5% of responders had treated, referred or endorsed a complementary therapy for at least one patient in 1999, compared with 59% in 2010. The most common therapies GPs used to treat with in 1999 were homeopathy and acupuncture and for referrals were homeopathy, acupuncture, chiropractic and osteopathy. In 2010, the therapy most GPs actually treated with was acupuncture, followed by hypnotherapy. Homeopathy was no longer the most popular treatment option. Referrals were predominately for acupuncture, chiropractic and homeopathy, although there was a considerable reduction in the number of referrals for homeopathy. In both surveys, many patients were referred to aromatherapy or it was endorsed or discussed during consultation. Reflexology and medical herbalism were the least popular therapies to treat with or refer to in both 1999 and 2010.

The 2010 previous week's involvement with a CAM therapy, taken as a whole, is represented in Figure 1.

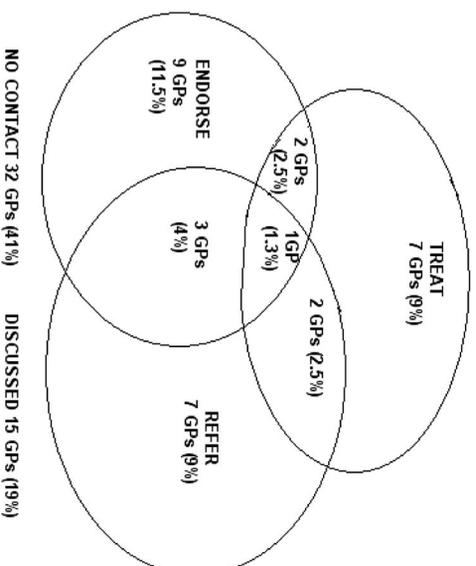
Generally speaking, the 2010 results are similar to those of 1999. A similar percentage of GPs treated in the previous week (13% in 1999 compared with 15% in 2010). However, more referrals and endorsements were made in 1999; 31% of GPs made a referral compared with 17% in 2010 and 38% endorsed a CAM compared with 19% in 2010. An additional column was added to look at GPs' discussion of CAM with patients: 19% of GPs had discussed a CAM therapy. A similar number of GPs had had no contact with CAM at all (43.5% versus 41%). Only 36% of responders reported that they regularly asked about CAM usage as a routine part of their case taking. This was an additional question to the 2010 survey, and therefore no comparison can be made.

### Opinions about CAM

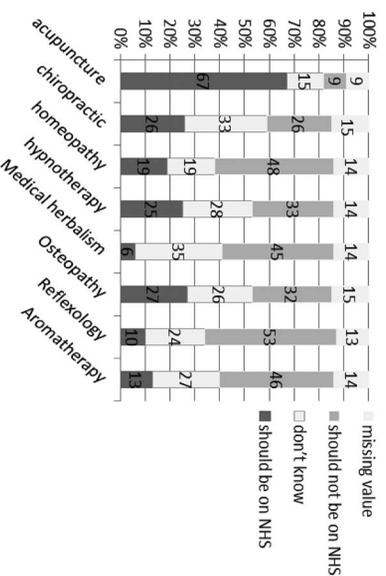
Sixty-seven per cent of GP respondents thought that acupuncture should be available on the NHS; this therapy was also favoured in the previous

**Table 1** A summary of any GP connection with each therapy (whether to treat, recommend, endorse or discuss) in the week before either survey

|                   | Treated<br>GPs who treated |                    |         |                    | Referred<br>GPs who referred |                    |         |                    | Endorsed<br>GPs who endorsed |                    |          |                    | Discussed<br>GPs who discussed |                    |
|-------------------|----------------------------|--------------------|---------|--------------------|------------------------------|--------------------|---------|--------------------|------------------------------|--------------------|----------|--------------------|--------------------------------|--------------------|
|                   | 1999                       |                    | 2010    |                    | 1999                         |                    | 2010    |                    | 1999                         |                    | 2010     |                    | 2010                           |                    |
|                   | n (%)                      | Number of patients | n (%)   | Number of patients | n (%)                        | Number of patients | n (%)   | Number of patients | n (%)                        | Number of patients | n (%)    | Number of patients | n (%)                          | Number of patients |
| Acupuncture       | 4 (3)                      | 9                  | 8 (0)   | 42                 | 9 (7)                        | 9                  | 4 (5)   | 4                  | 21 (16)                      | 27                 | 9 (11.5) | 16                 | 10 (13)                        | 28                 |
| Chiropractic      | 1 (0.8)                    | 1                  | 0 (0)   | 0                  | 9 (7)                        | 9                  | 3 (4)   | 4                  | 15 (11)                      | 16                 | 6 (7.7)  | 7                  | 4 (5)                          | 6                  |
| Homeopathy        | 8 (6)                      | 24                 | 1 (1.2) | 8                  | 23 (18)                      | 28                 | 3 (4)   | 3                  | 9 (7)                        | 10                 | 1 (1.2)  | 1                  | 0 (0)                          | 0                  |
| Hypnotherapy      | 1 (0.8)                    | 2                  | 2 (2.5) | 9                  | 4 (3)                        | 4                  | 1 (1.2) | 2                  | 4 (3)                        | 4                  | 0 (0)    | 0                  | 0 (0)                          | 0                  |
| Medical herbalism | 1 (0.8)                    | 1                  | 0 (0)   | 0                  | 0 (0)                        | 0                  | 2 (2.5) | 5                  | 6 (5)                        | 11                 | 2 (2.5)  | 5                  | 4 (5)                          | 11                 |
| Osteopathy        | 0 (0)                      | 0                  | 0 (0)   | 0                  | 9 (7)                        | 8                  | 0 (0)   | 0                  | 23 (18)                      | 26                 | 3 (4)    | 3                  | 5 (6.4)                        | 6                  |
| Reflexology       | 0 (0)                      | 0                  | 0 (0)   | 0                  | 0 (0)                        | 0                  | 1 (1.2) | 1                  | 2 (1.5)                      | 2                  | 0 (0)    | 0                  | 2 (2.5)                        | 4                  |
| Aromatherapy      | 1 (0.8)                    | 6                  | 1 (1.2) | 8                  | 2 (1.5)                      | 2                  | 1 (1.2) | 8                  | 11 (8)                       | 17                 | 2 (2.5)  | 16                 | 2 (2.5)                        | 16                 |



**Figure 1** Venn diagram to illustrate GP involvement with complementary medicine, the previous week (2010).



**Figure 2** Bar chart to illustrate the response of GPs as to whether CAMs should be provided by the NHS in 2010.

survey (at 66%). Less than 20% thought that reflexology, medical herbalism and aromatherapy should be provided through NHS funds. Both homeopathy and osteopathy seem to have fallen out of favour in the last 10 years, with homeopathy falling from 49% to below 20% and osteopathy from 50% to below 30% (Figure 2).

**Effectiveness of CAM**

Acupuncture was considered to be the most effective therapy, which is similar to the 1999 results (mean 60%) (Table 2).

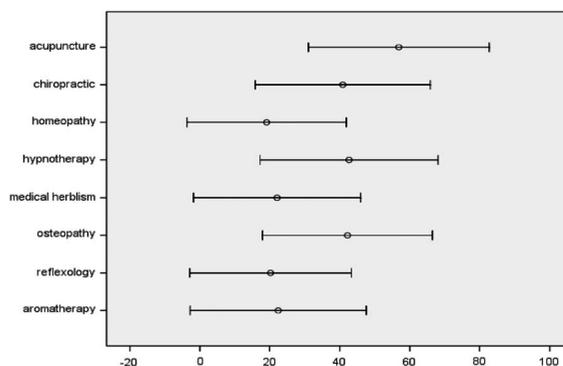
**Table 2** Summary of means and SD of effectiveness ratings for each therapy (2010)

|                   | <i>n</i> | Missing | Mean | SD   |
|-------------------|----------|---------|------|------|
| Acupuncture       | 64       | 14      | 60.5 | 24.7 |
| Chiropractic      | 54       | 24      | 44.4 | 27.0 |
| Homeopathy        | 54       | 24      | 21.9 | 26.1 |
| Hypnotherapy      | 53       | 25      | 44.6 | 25.4 |
| Medical herbalism | 46       | 32      | 21.4 | 23.4 |
| Osteopathy        | 54       | 24      | 45.9 | 25.1 |
| Reflexology       | 52       | 26      | 20.9 | 22.7 |
| Aromatherapy      | 52       | 26      | 22.6 | 24.7 |

Chiropractic, hypnotherapy and osteopathy followed at a mean of ~40% effective. Homeopathy, medical herbalism, reflexology and aromatherapy were considered the least effective (around a mean of 20%). Opinions about the effectiveness of homeopathy have changed the most in the last 10 years, as it was previously considered to be moderately effective (mean of almost 50% down to 22%). The error bars for all therapies have little variation in size, implying similar levels of variation in GP perceptions of effectiveness of each therapy (Figure 3). Forty-two per cent of responders reported that their patients had experienced benefit from their treatment in the past three months, particularly from acupuncture and chiropractic, figures that are considerably less than in 1999 (62%). There was an increase in adverse events reporting, and 30/77 (39%) reported that their patients had *ever* suffered adverse events compared with 21% previously. The most frequent adverse event was increased pain from chiropractic manipulation. Pneumothorax from acupuncture and one death resulting from herbal treatment for an advanced case of colitis were also mentioned.

### Knowledge and training in CAM

GPs were most confident in discussing acupuncture with their patients. Confidence in this particular therapy has increased from over 30% in 1999 to 50% in 2010. There was also an increase in confidence in discussing chiropractic (18–28%). Medical herbalism is the therapy they feel the least confident discussing, as was the case in 1999. Thirty-five per cent of the responding GPs had received training in one or more CAM. This was more than in the year 1999 (21%).

**Figure 3** Error plot to illustrate the mean percentage and SD of how effective GPs rated each therapy (2010).

The three main therapies in which GPs had received training were acupuncture, homeopathy and hypnotherapy, the same three as in 1999. Only 31% of respondents expressed an interest in further training in a CAM therapy, which is a drop from last time the survey was conducted (49%). The most popular therapy to receive training in was acupuncture. Only 39% had ever discussed any of the CAM therapies with a CAM practitioner, a drop from 46%, with the majority discussing with an acupuncturist.

There was little change in beliefs in the theoretical validity of each therapy; in fact, respondents were even less convinced about this than they were in 1999. Acupuncture was considered the most valid (50.7% of responders), followed by hypnotherapy (30.6%) and osteopathy (28.2%). Homeopathy, aromatherapy and reflexology had very little support for their theoretical validity, which was a similar trend in 1999.

### Discussion

As in our previous survey, the most popular therapies were acupuncture, hypnotherapy and chiropractic, and the least being aromatherapy, reflexology and medical herbalism.

The disappointing response rate (32%) suggests a reduction in GPs' willingness to complete questionnaires of this nature. Possible contributing factors were the GPs' completion of Quality and Outcomes Framework during the same time period and general GP 'questionnaire fatigue'.

As in 1999, marginally more women responded than men, if taken as a proportion of the population. Interestingly, this time, there was no difference in the age of responders, whereas last time responders were more likely to be younger (under 40 years). As with all surveys with a low response rate, our study is open to selection bias. If we assume, for instance, that those GPs who have a positive attitude towards CAM were more likely to respond than those holding neutral or negative views, the true picture might look quite different. Lack of response to surveys is a major problem, and future investigations should find ways of solving it, for example, by offering incentives. The apparent reduction in the proportion of GPs endorsing CAM (overall about 35% versus 19%) is striking. This may be because of an increased scepticism towards CAM by the medical profession (Singh and Ernst, 2008) or to a greater preoccupation by GPs with conventional medicine as a result of financial pressure.

Homeopathy, in particular, seems to have fallen out of favour. It is possible that the closure of the Liverpool Homeopathic Hospital (now just a department in a GP surgery) or the mostly negative emerging evidence (Editorial, 2005) has led to this change. Qualitative interviews would help determine the reasons.

Acupuncture seems to be the therapy that GPs felt most comfortable with, were most likely to want further training in and were most supportive for it to receive NHS funding. Despite little clinical evidence to support its effectiveness in conditions other than pain (Derry *et al.*, 2006; Ernst, 2006) or nausea (Ezzo *et al.*, 2006), GPs have seemingly incorporated this therapy into normal practice. This could be because of the fact that new theories about acupuncture's mode of action and its effects on the brain have emerged (Zhao, 2008; Goldman *et al.*, 2010).

Thirty-six per cent of responders reported regularly asking patients about CAM usage. This is an important question for GPs to ask for assessing safety, as some CAM therapies can interact with conventional medication, for example, St. John's Wort lowers the plasma level of a wide range of prescription drugs (Mills *et al.*, 2004). Patients should feel able to tell their GPs whether they are using other methods of healthcare but may feel uncomfortable to do so (Winslow and Shapiro, 2002). Qualitative research into GP communication

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with patients (Peters *et al.*, 2009) have identified that feeling one's individual experience has been understood, (Thom and Campbell, 1997) and a sense that GPs provide a safe place to feel listened to (Buszewicz *et al.*, 2006), are important aspects of the consultation and may encourage patients to confide that they are using alternative methods of healthcare.

Only 4/40 (10%) of GP practices had a CAM therapist on site, which contrasts to almost 40% of all practices offering some form of access to CAM therapy for their NHS patients. In 1999, we found that the GPs appeared to tolerate high levels of clinical uncertainty, endorsing a wide range of therapies, despite little knowledge of their content or conviction of their validity. This time, GPs were more likely to refer whether they had a belief in the theoretical validity of a therapy.

Our survey has several important limitations; the low response rate and the small sample size limit the generalisability of our findings. Our results cannot be extrapolated to other regions. Our data describe only to specific points in time (1999 and 2010), which might differ from the current (2013) situation. Crucially, our survey instrument, even though used repeatedly, (Wharton and Lewith, 1986; White *et al.*, 1997; Perry and Dowrick, 2000) has never been validated. Thus, there is uncertainty about reproducibility or sensitivity.

In conclusion, GP attitudes towards CAM have altered a little. A reduction in GP endorsement of CAM and a decrease in GPs' faith in homeopathy seem the most remarkable of the findings.

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## Conflicts of interest

There is no conflict of interest to declare.

## References

- Barnes, P.M, Bloom, B. and Nahin, R.L. 2008: Complementary and alternative medicine use among adults and children: United States. 2007. *National Health Statistics Report* 10, 1–23.

- Buszewicz, M., Pistrang, N., Barker, C., Cape, J. and Martin, J.** 2006: Patients' experiences of GP consultations for psychological problems: a qualitative study. *British Journal of General Practice* 56, 496–503.
- Department of Health.** 2006: *Health survey for England: the health of older people 2005*. London: HMSO.
- Derry, C.J., Derry, S., McQuay, H.J. and Moore, R.A.** 2006: Systematic review of systematic reviews of acupuncture published 1996–2005. *Clinical Medicine* 6, 3–6.
- Editorial.** 2005: The end of homeopathy. *Lancet* 366, 690.
- Ernst, E.** 2006: Acupuncture – a critical analysis. *Journal of Internal Medicine* 259, 125–37.
- Ezzo, J., Streitberger, K. and Schneider, A.** 2006: Cochrane systematic reviews examine P6 acupuncture-point stimulation for nausea and vomiting. *Alternative Complementary Medicine* 12, 489–95.
- Goldman, N., Chen, M., Fujita, T., Xu, Q., Peng, W., Liu, W., Jensen, T.K., Pei, Y., Wang, F., Han, X., Chen, J.-F., Schnerman, J., Takano, T., Bekar, I., Tieu, K. and Nedergaard, M.** 2010: Adenosine A1 receptors mediate local anti-nociceptive effects of acupuncture. *Nature Neuroscience* 13, 883–88.
- Hunt, K., Coelho, H., Wider, B., Perry, R., Hung, S.K., Terry, R. and Ernst, E.** 2010: Complementary and alternative medicine use in England: results from a national survey. *International Journal of Clinical Practice* 64, 1496–1502.
- Lupton, D.** 1994: *Medicine as culture*. London: Sage.
- Mills, E., Montori, V.M., Wu, P., Gallicano, K., Clarke, M. and Guvatt, G.** 2004: Interaction of St John's wort with conventional drugs: systematic review of clinical trials. *British Medical Journal* 329, 27–30.
- Perry, R. and Dowrick, C.** 2000: Complementary medicine and general practice: an urban perspective. *Complementary Therapies in Medicine* 8, 71–75.
- Peters, S., Rogers, A., Salmon, P., Gask, L., Dowrick, C., Towey, M., Clifford, R. and Morriss, R.** 2009: What do patients choose to tell their doctors? Qualitative analysis of potential barriers to reattributing medically unexplained symptoms. *Journal of Internal Medicine* 24, 443–49.
- Singh, S. and Ernst, E.** 2008: *Trick or treatment? Alternative medicine on trial*. London: Transworld Publishers.
- Thom, D.H. and Campbell, B.** 1997: Patient–physician trust: an exploratory study. *Journal of Family Practice* 44, 169–76.
- Thomas, K., Nicholl, J. and Fall, M.** 2001: Access to complementary medicine via general practice. *British Journal of General Practice* 51, 25–30.
- Thomas, K., Coleman, P. and Nicholl, J.** 2003: Trends in access to complimentary or alternative medicines via primary care in England 1995–2001. Results from a follow-up national survey. *Family Practice* 20, 575–77.
- Wharton, R. and Lewith, G.** 1986: Complementary medicine and the general practitioner. *British Medical Journal* 292, 1498–500.
- White, E., Resch, K. and Ernst, E.** 1997: Complementary medicine: use and attitudes among GPs. *Family Practice* 14, 302–06.
- Winslow, L.C. and Shapiro, H.** 2002: Physicians want education about complementary and alternative medicine to enhance communication with their patients. *Archives of Internal Medicine* 162, 1176–181.
- Xue, C.C., Zhang, A.L., Lin, V., Da Costa, C. and Story, D.F.** 2007: Complementary and alternative medicine use in Australia: a national population-based survey. *Journal of Alternative and Complementary Medicine* 13, 643–50.
- Zhao, Z.Q.** 2008: Neural mechanism underlying acupuncture analgesia. *Progress in Neurobiology* 85, 355–75.