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Providing Complementary and Alternative Medicine in primary care: the primary care workers' perspective

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Summary *Background*: The use of Complementary and Alternative Medicine (CAM) in primary care is growing, but still not widespread. Little is known about how CAM can/should be integrated into mainstream care. *Objectives*: To assess primary care health professionals' perceptions of need and of some ways to integrate CAM in primary care. *Method*: Questionnaire survey of primary health care workers in Northwest London. General Practitioners (GPs) were targeted in a postal survey, other members of the primary care team, such as district and practice nurses, were targeted via colleagues. The questionnaire assessed health care professionals' perspective on complementary medicine, referrals, ways to integrate complementary medicine into primary care and interest in research on CAM. *Results*: Responses were obtained from 149 GPs (40% response rate after one reminder) and 24 nurses and 32 other primary care team members. One hundred and seventy-one (83%) respondents had previously referred (or influenced referral) for CAM treatments, the main reasons cited were: patients request (68%), conventional treatments failed (58%) and evidence (36%) (more than one reason could be given). Acupuncture and homoeopathy were the therapies for which patients were most frequently referred, followed by manual therapies. There was a significant interest in more training/information on CAM (66%). Only 12 respondents (6%) were against any integration of CAM in mainstream primary care. Most respondents felt that CAM therapies should be provided by doctors (66%) or other health professionals trained in CAM (82%). Twenty-six percent of respondents agreed with provision of CAM by non-state-registered practitioners. It was felt that the integration of CAM could lead to cost savings (70%), particularly in conditions involving pain, but also cost increases (55%) particularly in 'poorly defined conditions'. Fifty-six percent of respondents would consider participating in studies investigating CAM. The greatest interest was in acupuncture (41% of those who expressed an interest in research), homoeopathy (30%) and therapeutic massage/aromatherapy (26%). *Conclusions*: There is considerable interest in CAM among primary care professionals, and many are already referring or suggesting referral. Such referrals are driven mainly by patient demand and by dissatisfaction with the results of conventional medicine. Most of our respondents were in favour of integrating at least some types of CAM in

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mainstream primary care. There is an urgent need to further educate/inform primary care health professionals about CAM.

Introduction

There is increasing evidence in favour of complementary medicine: bibliometric studies indicate a steady growth in the volume of published evidence on Complementary and Alternative Medicine (CAM).[1,2] Despite widespread CAM use by the public,[3] treatment options are not widely available in the NHS. The use of CAM in primary care is widespread, but little is known about the scale and scope of its use. The only national survey on the use of CAM in general practice took place in 1992, but did not obtain information on activity within non-fundholding practices[4] and was therefore not representative. A recently published survey of English general practices[5] suggested that 35–43% of General Practitioner (GP) partnerships provided access to some form of CAM for their NHS patients.

Many CAM modalities are generally most appropriate either in the early stages of disease or chronic disease, the areas most provided for in primary care. Because primary care is the largest single domain of medical provision, investigation of attitudes to CAM in primary care is of particular interest. Little is known about how CAM should be provided in primary care. Luff and Thomas[6] explored different models of CAM provision in primary care, for instance, CAM practitioners in individual general practices, or in larger CAM clinics on a more 'regional' basis. This research was conducted when GP fundholding was at its height, and the abolition of GP fundholding has changed the landscape. Also, there is insufficient information about health professionals' perception of the value of different CAM therapies.

The Royal London Homoeopathic Hospital (RLHH) is an NHS provider of a range of complementary therapies. It merged with Parkside Health, an NHS Community Trust in West and Northwest London, in April 1999 (the RLHH has subsequently merged with University College London NHS Trust in 2002). In order to optimise community provision of CAM, we assessed the perceived need and some ways to integrate and investigate different types of CAM within the Parkside Health catchment area.

Methods

We undertook a questionnaire survey of primary health care professionals in the Parkside Health catchment area.

The professionals targeted were GPs, practice nurses, district nurses, health visitors as well as some psychologists and physiotherapists.

All 370 GPs practising in the Parkside Health catchment area were surveyed by mail. The majority of GPs were from the Brent Health Authority area ($N = 289$), others were from Barnet (30); Ealing Hammersmith and Hounslow (23); Hillingdon (18); Kensington, Chelsea and Westminster (4); Camden and Islington (6) Health Authority areas. Non-responders were sent a single reminder letter after 3 weeks. In addition, 50 questionnaires were supplied to each of two Parkside regional managers for further distribution to primary care team staff, mostly health visitors, health care assistants and specialist nurses. Finally, questionnaires were sent to the Chairs of Primary Care Groups in the above-mentioned areas, requesting further distribution to other members of the PCG.

The questionnaire comprised of four sections. The first section focussed on the health care professionals' attitudes to complementary medicine, which included questions about the types of complementary medicine and about referrals: we asked GPs whether they had previously referred for CAM treatments, and if so why, and to which type(s) of CAM. Nurses and other primary care professionals were asked whether they had influenced referral (rather than actually referred). The second section asked about possible models for integration of complementary medicine in primary care, including questions on the best location for complementary services, on providers and on the possible advantages or disadvantages of integrating complementary medicine in the primary care setting. The third section focussed on research interests/experience and addressed which types of complementary medicine for which conditions are most promising. In the final section, some demographical data were obtained.

Complete double data entry (in Microsoft Access) was undertaken using automated consistency and logical checks. Statistical analyses primarily involved descriptive statistics and used SPSS for Windows (Version 9.0).

Results

The study took place in September–October 1999. Reminder letters to the GPs were sent in the last

Table 1 Demographic and some other characteristics respondents.

Characteristics	Number	Percentage[a]
Sex (male/female)	74/128	37/63
Age (25-44/45-64/65+)	106/89/6	53/44/3
Profession (GP/district nurse/practice nurse/other)	149/5/19/32	73/2/9/16
Place of employment (GP practice/health centre[b]/other)	166/31/6	82/15/3
Formerly referred/influenced referral for CAM treatment (yes/no)	171/33	84/16

[a] Percentages were rounded to the nearest number.
[b] Health centres provide services funded/organised directly by local health authorities.

week of September and the first week of October. Responses were obtained from 149 GPs (40% response rate) as well as from 24 nurses and 32 other primary care team members. Demographic and other baseline data on the respondents are summarised in Table 1.

Of the GP sub-population, 74 respondents were females and 72 males (in three gender was missing). Almost all non-GP primary care professionals were female (54 females, 2 males).

Referral patterns

One hundred and seventy-one respondents had previously referred, or influenced referral for one or more forms of CAM (Table 1). The main reasons are given in Fig. 1. It was possible to indicate more than one reason, so the figure primarily provides information on the relative frequency of different reasons (height of bars).

Patients themselves are the most important 'driver' for referrals, followed by the perceived failure of conventional medicine. Intrinsic qualities of CAM, such as evidence that it works and relative safety, seemed to be less important influences on referral patterns.

The different CAM treatments for which referrals were made are given in Fig. 2. As in Fig. 1, it was possible to indicate more than one option.

Acupuncture, homoeopathy and manual therapies were by far most common treatments for which patients were referred. Fig. 3 depicts health professionals' opinion of which groups of conditions are most likely to benefit from referral to CAM.

Musculoskeletal conditions, headache and other chronic pain conditions are most commonly believed to benefit from CAM. This is followed by a cluster, including skin conditions, chronic fatigue syndrome, allergic conditions and 'poorly defined' conditions. At the other end of the spectrum, for instance, only four respondents felt that patients with dementia are likely to benefit from CAM.

Integrating CAM provision in primary care

Eighty-three (44%) respondents indicated they would prefer the provision of a limited range of CAM modalities 'on-site' by a CAM practitioner at the practice/health centre. Ninety-two respondents (49%) preferred a wider range of therapies 'off-site' at a separate (local) clinic serving a number of practices. Twelve respondents (6%) were not in favour of integrating any CAM provision in primary care. Views on who should provide integrated CAM services (doctors, other state-registered health professionals, or non-state-registered CAM practitioners) are summarised in Fig. 4.

Fig. 4 indicates a preference amongst the respondents for CAM to be provided by doctors or other state-registered health care professionals (physiotherapists, nurses, etc.) with additional qualification(s) in CAM. One hundred and seventy (88%) respondents felt CAM services should be provided on a sessional basis, rather than on the basis of a CAM practitioner being available all the time. One hundred and sixty-two (79%) respondents felt there were potential benefits to the integration of CAM. The main reasons cited were the ability to offer a wider range of therapies, increased patient choice and increased patient satisfaction. Fifty-seven (35%) of those who felt there were potential benefits of integrating CAM, also felt that there were potential disadvantages to integration of CAM. In total, 75 respondents (37% of total sample) felt there were potential disadvantages of integration but only 23 (11% of total sample) felt there were no potential advantages. The main reasons cited by those who saw potential disadvantages were a lack of evidence of efficacy and/or effectiveness, possible overuse of services due to high demand and drain on already limited financial resources.

Many respondents (136; 70% of all respondents) were of the opinion that integration of CAM in primary care has the potential to generate cost savings. Fifty-two of these respondents (38%) felt that

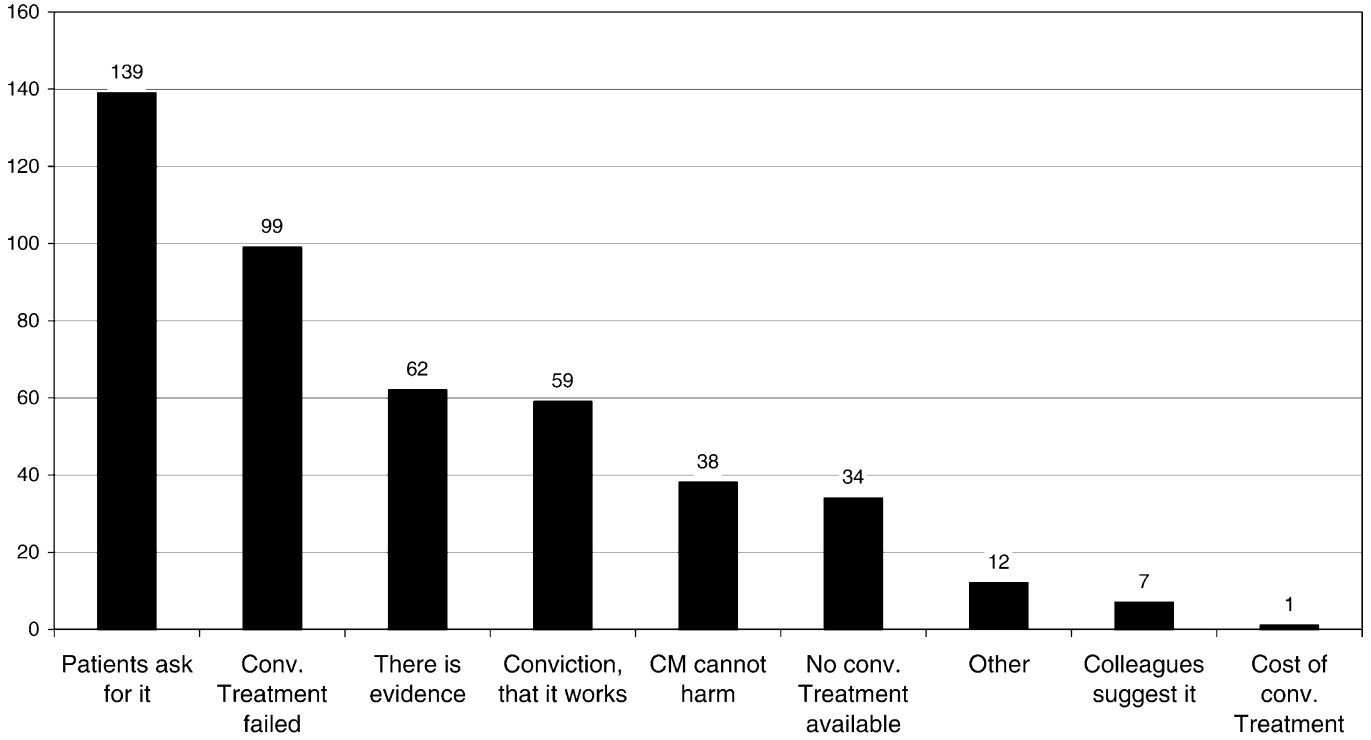

Figure 1 Reasons for referring patients to CAM, in order of importance (more than one reason could be indicated). Values are numbers, out of 171 respondents who refer to CAM.

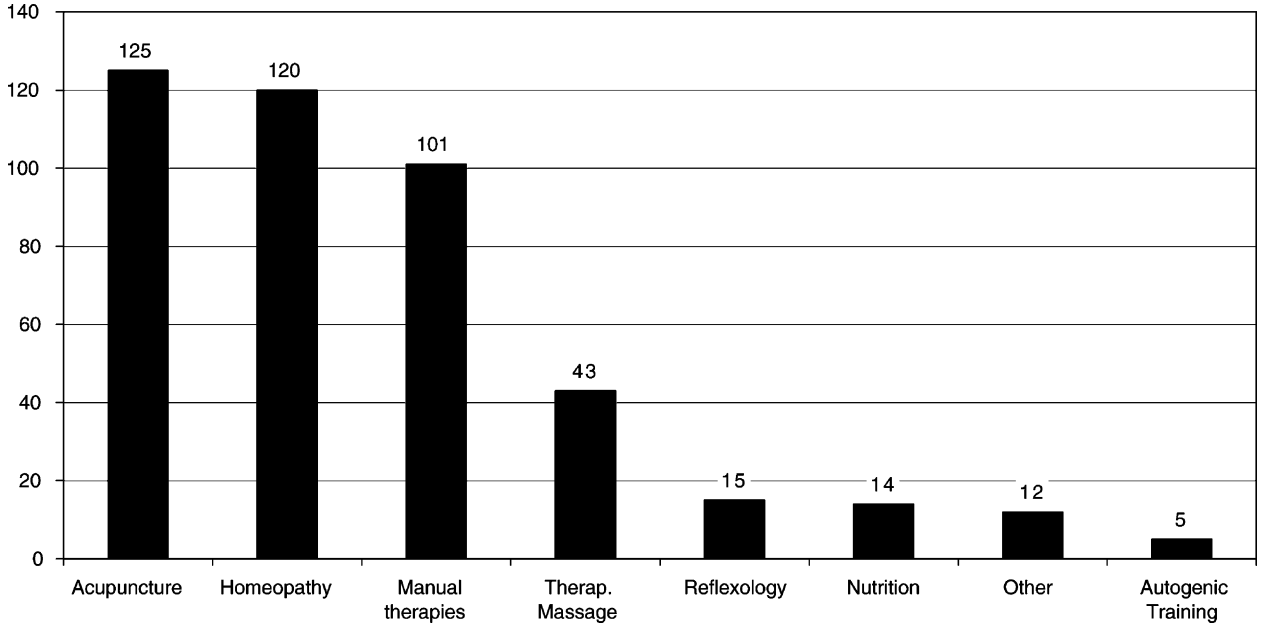

Figure 2 CAM modalities referred to, sorted by frequency. Numbers of respondents (out of 171) who refer to various CAM modalities.

integrating CAM could also lead to cost increases. One hundred and two respondents (70% of all respondents) felt that integrating CAM could lead to cost increases, half of these (50; 49%) felt there were only potential cost increases, without savings.

Respondents were asked to specify their perceptions regarding potential cost savings and/or increases by type of CAM therapy and by type of condition. These results are depicted in Figs. 5 and 6. Note that respondents were free to indicate any number of CAM therapies and conditions. Each bar represents the number of respondents who ticked that therapy or condition. For the total group of respondents, the height of the bars is therefore an indication of the relative importance of a CAM therapy or condition compared to others.

Fig. 5 suggests that the potential cost savings/increases ratio is considered to be most favourable for acupuncture, manual therapies, homoeopathy, relaxation, therapeutic massage (in that order) and, to a lesser degree, hypnotherapy. The ratio is neutral to unfavourable for respectively reflexology, herbal medicine, nutrition and healing (in that order). Fig. 6 suggests that the potential cost savings/increases ratio is by far most favourable for conditions associated with or characterised by pain, followed at some distance by skin conditions, allergic conditions and chronic fatigue syndrome. The ratio is least favourable for dementia, neurodisability (long-term disability due to neurological disease, including cerebral palsy, stroke, various neurodegenerative conditions, etc.), respiratory diseases, substance abuse/dependence and behavioural problems.

One hundred and thirty-two respondents (66%) were interested in receiving further training/information about CAM.

Research interest and experience

Fifty-four percent of respondents were interested in research in general. The most popular research areas were respectively musculoskeletal, cardiovascular and dermatological disorders. The highest levels of interest were for acupuncture, homoeopathy and therapeutic massage/aromatherapy. Relatively low levels of interest were expressed for respectively healing, nutrition and hypnotherapy. Sixty-five respondents (32%) had practical experience with research and 116 respondents (57%) indicated possible problems or constraints associated with CAM research. The most frequently quoted constraints were lack of time, lack of resources and methodological problems related to the conduct of randomised-controlled trials, such as: difficulties with standardising CAM treatments, difficulties with blinding (for instance, in manual therapies), difficulties with appropriately quantifying the effects of CAM treatments.

Subgroup analyses

Some subgroup analyses were conducted to further explore the data. Differences in perceptions

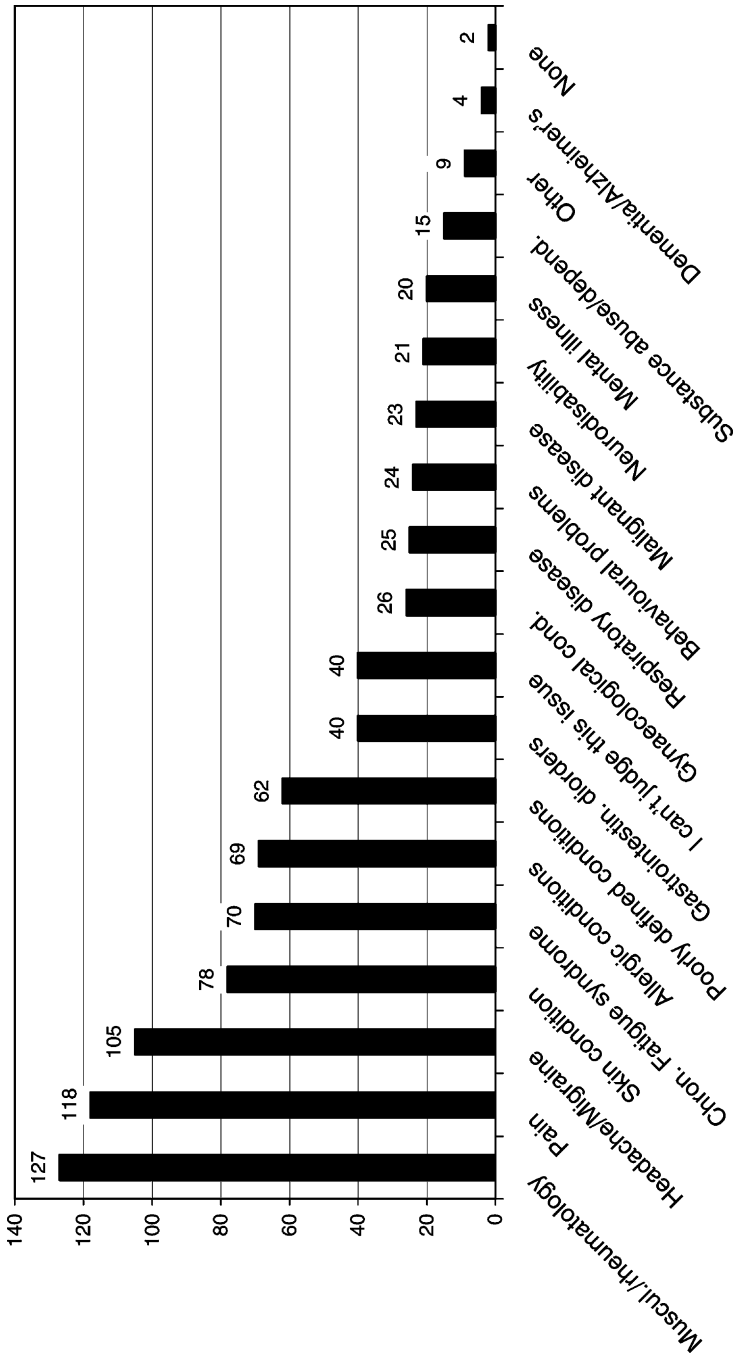

Figure 3 Numbers of respondents (out of 171) who believe different conditions are most likely to benefit from referral to CAM.

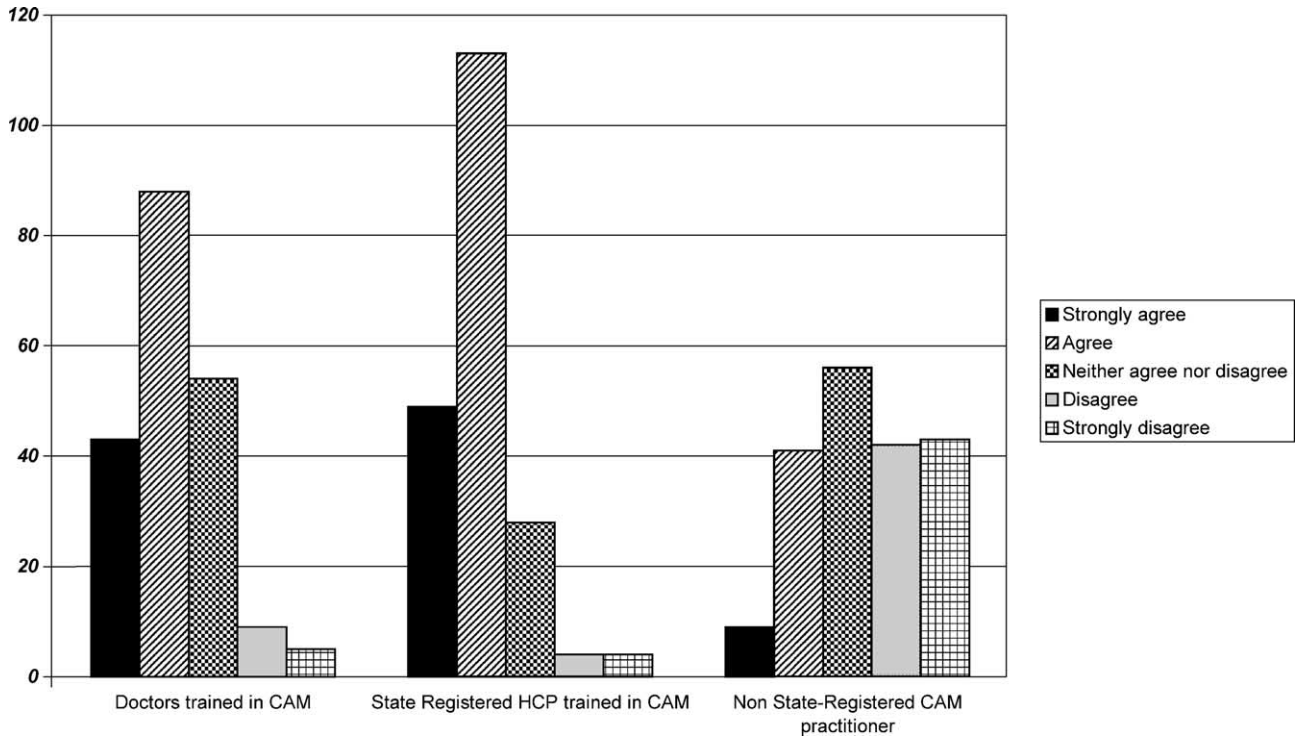

Figure 4 Respondent's attitudes to who should provide CAM services (vertical axis = numbers).

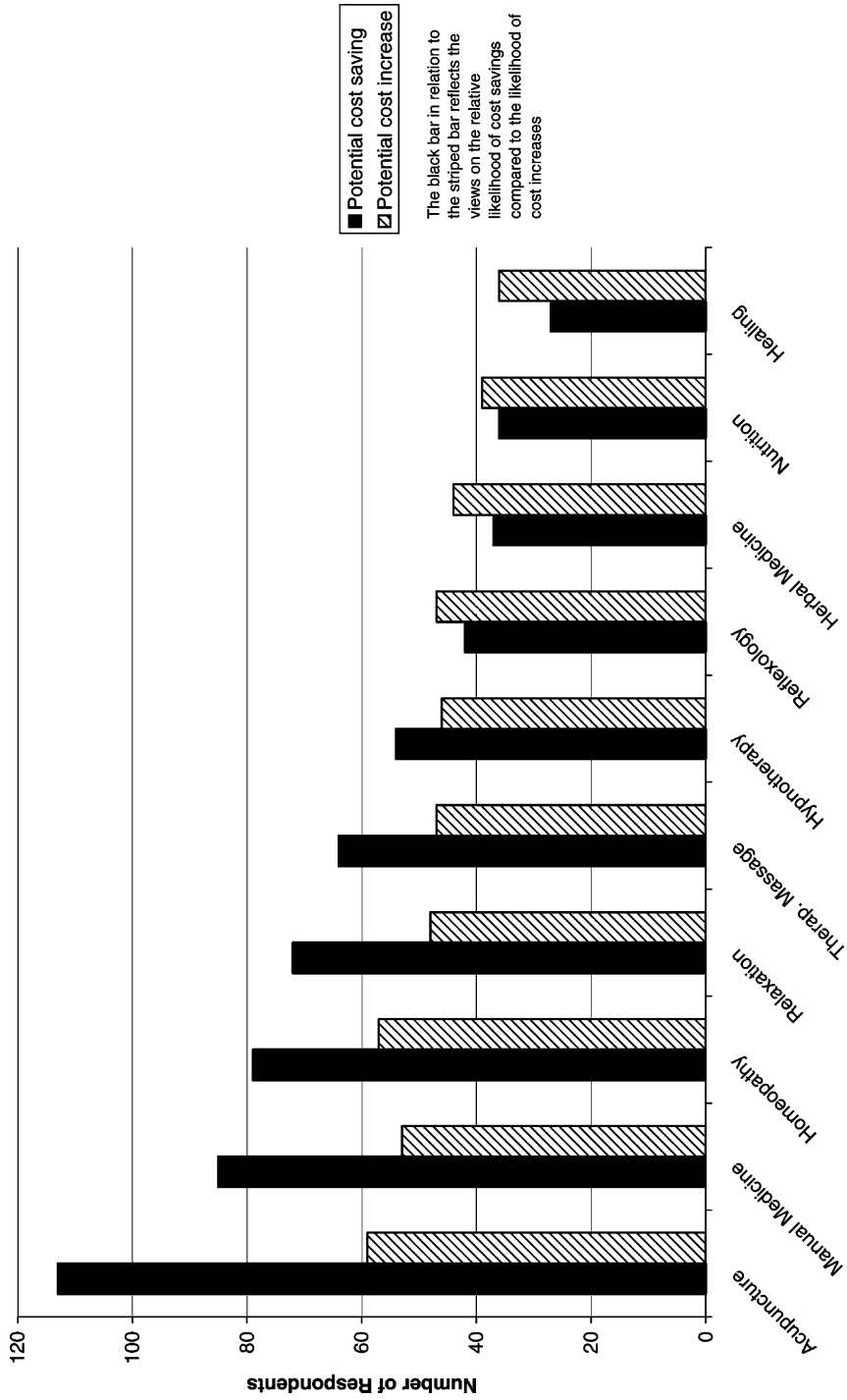

Figure 5 Perceptions of potential cost savings and/or increases associated with integrating CAM modalities in primary care.

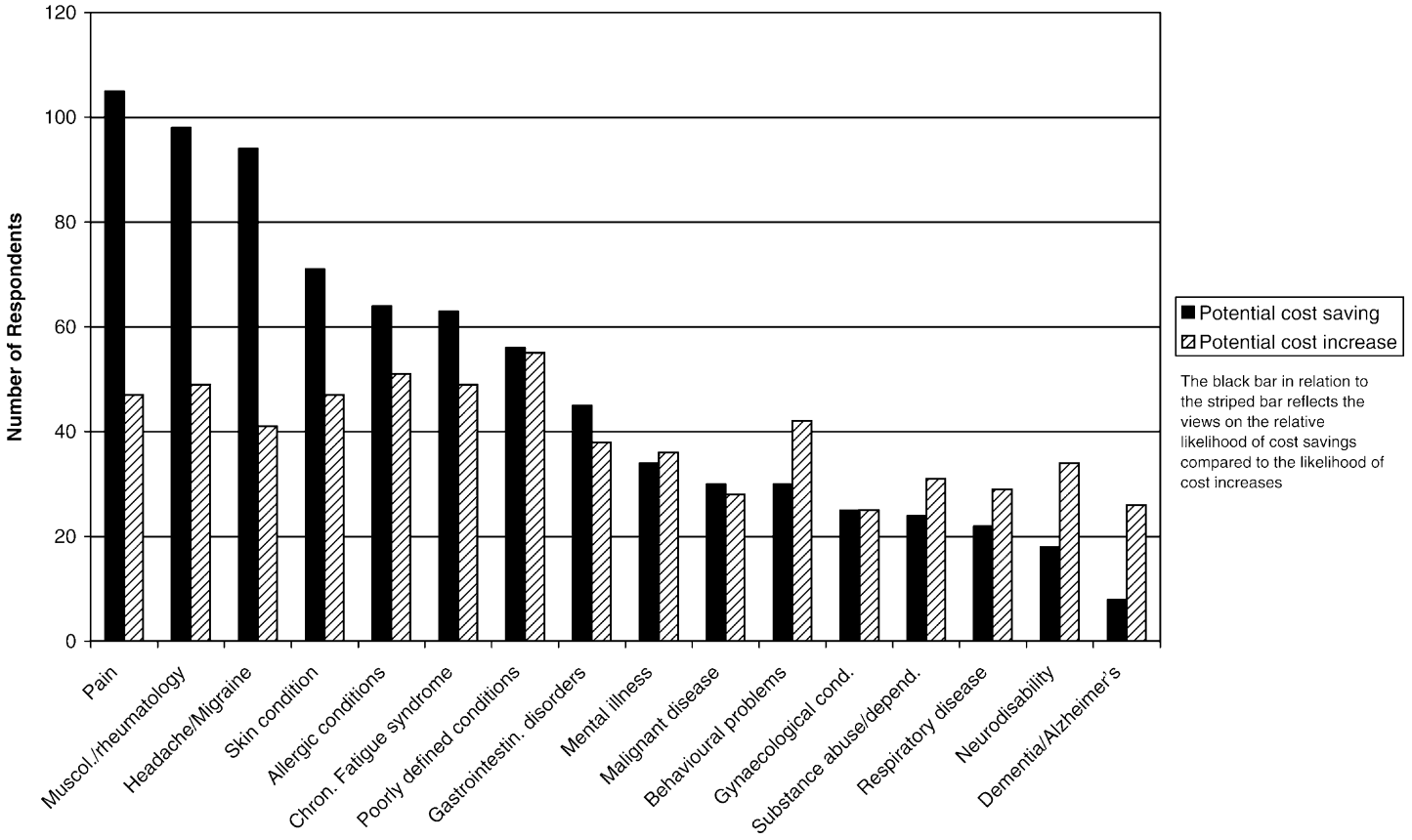

Figure 6 Perceptions of potential cost savings and/or increases associated with integrating CAM modalities for different conditions.

between type of professional (GP or non-GP) gender, and age group were explored. Non-GP primary care professionals were more convinced of the effectiveness of CAM than their GP colleagues, tending to refer (or influence referral) more because they were 'convinced that CAM works' (60% of non-GPs versus 28% of GPs) and/or 'there is evidence' (57% non-GPs versus 31% GPs). GPs tended to refer more for acupuncture (79% of GPs versus 51% of non-GPs) whereas non-GPs tended to refer (or influence referral) much more for therapeutic massage and/or aromatherapy (60% of non-GPs versus 16% of GPs). Non-GPs were more convinced of the potential benefits of integrating CAM (96% versus 79%), and that integration could lead to cost savings (non-GPs 85% savings; 37% cost increases versus GPs 64% savings; 62% cost increases).

Almost all non-GPs were female, analyses for female non-GPs are therefore essentially identical to the non-GP category above. The gender subgroup analyses below compared male with female GPs. More female GPs referred for CAM because they felt there 'there is evidence' than male GPs (35% of female GPs versus 26% of male GPs) and because they were 'convinced that it works' (32% of females versus 24% of males). More females referred for homoeopathy than males (78% of females versus 65% of males).

A similar (high) percentage of both female and male GPs felt that CAM could contribute to the treatment of patients (98% of females, 95% of males). Female GPs were more positive about the scale of benefit than male GPs (females 51% 'can definitely contribute', 47% 'may contribute'; males 31% 'can definitely contribute, 64% 'may contribute'). Formulated in reverse, this indicates a slightly more 'reserved' attitude in male GPs.

'Older' (45 or over) GPs tended to refer more because they felt 'there is evidence', this trend was particularly evident for female GPs (32% of males 45 years or over versus 50% of females 45 years or over). 'Patients asked for it' was a more common reason for referral in older male GPs (94%, versus 80% in GPs $<$45 years) and, curiously, younger female GPs (97% versus 81% in GPs 45 years or over). Older male GPs tended to refer more commonly to acupuncture (87% versus 70% in male GPs $<$45 years) and homoeopathy (74% versus 53% in male GPs $<$45 years). No such age trends were present for female GPs.

Discussion

A 40% response rate by GPs to a questionnaire survey is not optimal. A higher response rate might have been obtained by sending more than one reminder letter. Therefore, respondent bias (i.e. respondents having a more positive attitude towards CAM) may well have occurred. Our results are based on an 'urban' GP population. The attitudes of GPs in other areas towards CAM may be different. Also, 51% of GP responders in our sample is female, which is higher compared to the 36% (in 2001) of females in the English GP population.[7] In the light of the gender subgroup analyses reported above, this could have contributed to respondent bias.

Due to the method of sampling, it was not possible reliably to determine a response rate for the 'other' (non-GP) primary care professionals. Care should therefore be taken in generalising data from the sub-population of other primary care professionals.

The interpretation of Figs. 3 and 6 requires further discussion. Only four respondents felt that patients with dementia are likely to benefit from CAM. The item dementia was included as a test of respondents' awareness of the evidence because the efficacy of the herb *Ginkgo biloba* ('maidenhair tree') in dementia is well supported by evidence,[8,9] as early as 1992 positive review articles were available.[10] The fact that dementia/Alzheimer's disease was only mentioned rarely does not, in our view, imply that data derived from primary care workers are not reliable, but that very few respondents were aware of the existing evidence on *Ginkgo biloba*. This may be explained by the absence of a strong tradition of herbal medicine in the UK medical profession in contrast with continental Europe. In general, developing evidence-based herbal medicine appears to be an important area, neglected in the UK. Further dissemination of existing evidence, research and training of health care professionals is urgently required.

Regarding the possible role of CAM in particular conditions, GPs referral decisions are likely to be guided by what they do know, but also by 'effectiveness gaps' (clinical areas in which GPs lack effective treatments) of conventional medicine. A subsequent, semi-qualitative study of a sample of these GPs confirmed that such effectiveness gaps are common and that there is evidence in favour of CAM modalities in a number of these effectiveness gaps.[11] The research priorities for CAM in a primary care led NHS should be based on GP's views, existing evidence and also the 'consumers' (=patients') views.[12,13]

The attitude of the conventional medical professional community towards CAM is changing. For instance, the 1993 BMA report on complementary therapies[14] was much more positive about the possible integration of some types of CAM than its very critical predecessor published only 7 years earlier.[15]

This study confirms that the trend towards more positive attitudes is present in primary care workers. The finding that only 6% of respondents were against any type of integration of CAM in primary care was surprising. Although this should not be misinterpreted as 94% being in favour of integrating CAM in primary care, it does confirm that only a small minority feels that CAM has no role to play in general practice. This could possibly reflect the 'pragmatic' (rather than 'academic') attitude of many primary care workers: working in 'the front line' of medicine may make them more aware of the limitations of conventional medicine and more receptive to patients' needs and preferences.

GPs were evenly divided on preference for an 'on-site' or 'off-site' model for CAM provision. Advantages and disadvantages of both models of provision are extensively discussed by Luff et al.[6] They conclude that there was a wide diversity in services, mainly dependent on local circumstances, in particular the level of GP involvement and commitment. Pietroni[16] proposed a model of a multi-professional practice that would allow both GPs' and CAM practitioners to be more integrative in providing treatments for their patients. Based on this study and the existing literature, no single optimal model of integrated CAM provision seems to emerge. In practice, local circumstances will often determine the chosen approach. If there is a strong personal commitment to CAM by the practice, the local provision of CAM services might be feasible and preferable. However, this 'ad hoc' type of development will result in a diversity of services. If there is no specific personal commitment towards CAM, the 'off-site' provision of CAM services is likely to be preferable. The advantages of off-site models are a more 'stable' provision of CAM services, less dependent on the preferences of individual GPs. In addition, a broader range of CAM services is likely to be possible due to a larger 'patient base'. In our view, guidelines/recommendations should prioritise the 'off-site' provision of CAM because it will facilitate a more stable and broader provision of CAM services. However, this should not preclude the 'on-site' provision of either private or NHS funded CAM services if individual circumstances permit. These issues will need to be explicitly addressed by Primary Care Trusts. Better dissemination of existing evidence as well as further research into the cost-effectiveness of CAM therapies is required to facilitate the further integration of evidence-based CAM in mainstream medicine.

References

1. Barnes J, Abbot N, Harkness E, Ernst E. Articles on complementary medicine in the mainstream medical literature. *Arch Intern Med* 1999;**159**:1721—5.
2. Vickers AJ. Bibliometric analysis of randomised trials in complementary medicine. *Complement Ther Med* 1998;**6**:185—9.
3. Thomas K, Nicholl JP, Coleman P. Use and expenditure on complementary medicine in England: a population based survey. *Complement Ther Med* 2001;**9**:2—11.
4. Cameron-Blackie G. *Complementary therapies in the NHS*. Birmingham: National Association of Health Authorities and Trusts; 1993.
5. Thomas KJ, Nicholl JP, Fall M. Access to complementary medicine via general practice. *Br J Gen Pract* 2001;**51**:25—30.
6. Luff D, Thomas K. Models of complementary therapy provision in primary care. Report. University of Sheffield: Medical Care Research Unit; 1999. 191 p.
7. Department of Health. Statistics for General Medical Practitioners in England: 1991–2001. *Stat Bull*. www.doh.gov.uk/public/sb0203.htm.
8. Le Bars PL, Katz MM, Berman N, Turan M, Freedman AM, Schatzberg AF. A placebo-controlled, double blind, randomized trial of an extract of *Ginkgo biloba* for dementia. *JAMA* 1997;**278**:1327—32.
9. Oken BS, Storzbach DM, Kaye JA. The efficacy of *Ginkgo biloba* on cognitive function in Alzheimer's disease. *Arch Neurol* 1998;**55**:1409—15.
10. Kleijnen J, Knipschild P. *Ginkgo biloba* for cerebral insufficiency. *Br J Clin Pharmacol* 1992;**34**:352—8.
11. Fisher P, van Haselen R, Hardy K, Berkovitz S, McCarney R. Effectiveness gaps in general practice: the potential of complementary medicine (submitted for publication).
12. Tallon D, Chard J, Dieppe P. Relation between agendas of the research community and the research consumer. *Lancet* 2000;**355**:2037—40.
13. Hanley B, Truesdale A, King A, Elbourne D, Chalmers I. Involving consumers in designing, conducting and interpreting randomised controlled trials: questionnaire survey. *BMJ* 2001;**322**:519—23.
14. BMA. *Complementary medicine*. London: BMA; 1993.
15. BMA. *Alternative therapies*. London: BMA; 1986.
16. Pietroni PC. Beyond the boundaries: relationship between general practice and complementary medicine. *BMJ* 1992;**305**:564—6.