

# Which complementary and alternative therapies benefit which conditions? A survey of the opinions of 223 professional organizations

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**SUMMARY.** With the increasing demand and usage of complementary/alternative medicine (CAM) by the general public, it is vital that healthcare professionals can make informed decisions when advising or referring their patients who wish to use CAM. Therefore they might benefit from advice by CAM-providers as to which treatment can be recommended for which condition. **Aim:** The primary aim of this survey was to determine which complementary therapies are believed by their respective representing professional organizations to be suited for which medical conditions. **Method:** 223 questionnaires were sent out to CAM organizations representing a single CAM therapy. The respondents were asked to list the 15 conditions they felt benefited most from their CAM therapy, the 15 most important contra-indications, the typical costs of initial and any subsequent treatments and the average length of training required to become a fully qualified practitioner. The conditions and contra-indications quoted by responding CAM organizations were recorded and the top five of each were determined. Treatment costs and hours of training were expressed as ranges. **Results:** Of the 223 questionnaires sent out, 66 were completed and returned. Taking undelivered questionnaires into account, the response rate was 34%. Two or more responses were received from CAM organizations representing twelve therapies: aromatherapy, Bach flower remedies, Bowen technique, chiropractic, homoeopathy, hypnotherapy, magnet therapy, massage, nutrition, reflexology, Reiki and yoga. The top seven common conditions deemed to benefit by all twelve therapies, in order of frequency, were: stress/anxiety, headaches/migraine, back pain, respiratory problems (including asthma), insomnia, cardiovascular problems and musculoskeletal problems. Aromatherapy, Bach flower remedies, hypnotherapy, massage, nutrition, reflexology, Reiki and yoga were all recommended as suitable treatments for stress/anxiety. Aromatherapy, Bowen technique, chiropractic, hypnotherapy, massage, nutrition, reflexology, Reiki and yoga were all recommended for headache/migraine. Bowen technique, chiropractic, magnet therapy, massage, reflexology and yoga were recommended for back pain. None of the therapies cost more than £60 for an initial consultation and treatment. No obvious correlation between length of training and treatment cost was apparent. **Conclusion:** The recommendations by CAM organizations responding to this survey may provide guidance to health care professionals wishing to advise or refer patients interested in using CAM. © 2001 Harcourt Publishers Ltd

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## INTRODUCTION

Complementary/alternative medicine (CAM) is commonly used in many countries including the UK,<sup>1</sup> Germany,<sup>2,3</sup> USA<sup>4,5</sup> and Australia.<sup>6</sup> The incidence of CAM use by defined patient populations, e.g. those suffering from rheumatic diseases,<sup>7</sup> acquired immunodeficiency syndrome (AIDS)<sup>8</sup> dermatological conditions<sup>9</sup> or cancer,<sup>10</sup> has been relatively well established. Consumer's demand has led to considerable support for CAM to be provided by national healthcare systems (e.g.<sup>11</sup>). In the UK, 64% of people seeking CAM consult their general practitioner or hospital specialist first,<sup>12</sup> and 24% concurrently receive orthodox care.<sup>13</sup> It is vital that primary care physicians and other health care professionals can make informed choices when referring patients on to CAM providers. Yet they often feel uncertain as to which patients might benefit from which treatments. Various solutions have been sought for this problem. In an integrated healthcare practice in Glastonbury, UK, for instance, each CAM practitioner supplied a list of conditions for which they considered their therapy to be particularly appropriate.<sup>14</sup> This was deemed necessary, at least initially, as neither the CAM practitioners nor the doctors were familiar with one another's work.

There is a lack of reliable data for informing physicians on which CAM therapies are best suited for which conditions. This investigation is an attempt to start filling this gap. Its primary aim is to determine which forms of CAM are believed to be suited for which conditions by their respective professional organizations.

## METHODS

Five hundred and twenty six addresses of CAM organizations had been generated by the Department of Complementary Medicine at Exeter University. It included 364 addresses of all UK CAM organizations generated by a systematic survey sponsored by the UK Department of Health<sup>15</sup>. Furthermore it included 162 addresses from outside the UK which were compiled over 7 years at our Department. To the best of our knowledge it represents the most comprehensive address list of CAM organizations collected to date. There was no restriction regarding the professional status of practitioners represented by the CAM organizations. Of the 526 addresses, 303 were excluded because they did not correspond to organizations representing single therapies. Thus 223 questionnaires were sent out.

The confidential questionnaire was purpose-designed and asked what CAM therapy the organization represented. Our aim was to target organizations that represented a single CAM therapy but those that covered more than one therapy were

asked to photocopy the form for each. The respondents were asked to list the top 15 conditions they felt benefited from their CAM therapy, the top 15 contra-indications, the typical costs of initial and any subsequent treatments and the average length of training (in hours) a fully qualified practitioner would require. Participants were asked to fill in as much of the form as they felt appropriate. A sample of the questionnaire is obtainable from the authors.

The questionnaires were sent out on 1st February 2000 and a reminder followed to non-respondents 1 month later. Responses were collected until the closing date of 30 April 2000. All information was entered into Excel spread sheets and presented by descriptive statistics.

Only data from therapies for which we received two or more questionnaire responses were used in the present analysis. We determined those indications which CAM organizations thought benefited most from CAM therapies. Therapies were grouped into physical therapies, mind/body therapies or complementary medicines. By counting how frequently conditions and contra-indications were quoted, the top five of each were determined for each therapy. Treatment costs and hours of training were expressed as ranges.

## RESULTS

Of the 223 questionnaires sent out, 66 were received from separate addresses. Several organizations sent back more than one completed questionnaire (obviously completed by different individuals within that organization): this is not included in the response rate although all the data were pooled and used for analysis of conditions treated/contraindications etc. Twenty-six questionnaires were returned unopened, four responded by stating they did not wish to participate and four wrote to say that the questionnaire was not suitable/applicable for their organization. Thus the response rate was 34%. The range of CAM organizations contacted is listed in Table 1.

There were two or more responses from twelve therapies: aromatherapy ( $n = 11$ ), Bach flower ( $n = 2$ ), Bowen technique ( $n = 2$ ), chiropractic ( $n = 2$ ), homoeopathy ( $n = 4$ ), hypnotherapy ( $n = 5$ ), magnet therapy ( $n = 2$ ), massage ( $n = 8$ ), nutrition ( $n = 3$ ) reflexology ( $n = 11$ ), Reiki ( $n = 2$ ) and yoga ( $n = 2$ ).

When the answers from all the questionnaires were pooled, the most common conditions deemed to benefit from CAM, in descending order of frequency, were: anxiety/stress, headaches/migraine, back pain, respiratory problems including asthma, insomnia, cardiovascular problems and musculoskeletal problems. Table 2 lists the 25 most frequently cited conditions and the therapies advocated for treating them.

**Table 1** List of therapies represented by complementary and alternative medicine organizations, responding to survey

Therapy	Questionnaires sent out	Response
Acupuncture/TCM	20	1
Alexander technique	3	1
Aromatherapy	20	10
Art Therapy	2	1
Ayurvedic medicine	2	1
Bach flower remedies	5	2
Biodanza	1	1
Bowen technique	3	2
Chiropractic	10	2
Counselling & Psychotherapy	2	1
Herbal medicine	7	1
Homoeopathy	23	4
Hypnotherapy	11	5
Kinesiology	4	1
Magnet therapy	2	2
Massage	18	7
Music therapy	1	1
Neural therapy	4	1
Neuro-Linguistic Programming (NLP)	1	1
Nutrition	4	3
Osteopathy	3	1
Polarity	1	1
Radionics	2	1
Rebirthing	1	1
Reflexology	8	8
Reiki	3	2
Spiritual healing	1	1
Tai Chi	1	1
Yoga	5	2

Other therapies represented by professional organizations which were contacted but did not respond:  
 Shamanic healing & counselling, Cranio sacral therapy, Ophthalmic Somatology, Dream analysis, Bioharmonics, Crystal therapy, Chelation therapy, Progressive relaxation, Colour therapy, Spa therapy, Temperature therapy, Oxygen therapy, Organ extract therapy.

The answers to the questions of which individual therapies are deemed to benefit which condition are summarized in Tables 3, 4 & 5. Of the therapies with just two responses, no consensus was found in terms of the conditions treated and contra-indications and the limitations of these data must be noted. None of the therapies cost more than £60 for an initial consultation and treatment (Tables 3–5). There was no clear correlation between the length of training and cost of treatment.

## DISCUSSION

The rapid increase in public demand for CAM means that communication and co-operation with orthodox health services is increasingly desirable<sup>16</sup>, especially considering that many patients use CAM concurrently with orthodox medicine<sup>17</sup>. Also, it is likely that the public will increasingly seek clarification on the limitations of the various CAM therapies. Indeed, a recent

report to the UK Department of Health recommended that a clearer articulation of competence and limitations to treatment by CAM practitioners may be a basis for improved liaison with other health services and may lead to wider acceptance of their contribution.<sup>18</sup> Such an approach may also help to promote public confidence in CAM and provide information to doctors for assessing therapies or advising patients who wish to use CAM. To the best of our knowledge, this is the first survey of CAM organizations asking for their views on treatment benefit, safety and cost. Its results may provide a useful guide to healthcare professionals: they give some indication as to which conditions are most commonly being treated by CAM providers and which treatments might be best for which conditions.

The most obvious limitation of this survey is its low response rate. The explanation for this is probably complex and certainly speculative. Many forms of CAM (e.g. homoeopathy, spiritual healing, Reiki) do not subscribe to the biomedical classification of diseases. Thus, these organizations would have had difficulties answering our questions, or felt they were not applicable. Similarly, some organizations representing the more established disciplines (e.g. chiropractic and osteopathy), may have considered their therapy to be mainstream rather than CAM. Other reasons may include a level of distrust and/or non co-operation with this type of survey which could be seen to define CAM usefulness solely in terms of conventional medical criteria. Furthermore, individualised approaches to treatment cannot be accurately reflected with this kind of survey, and CAM organizations may have felt that it could not fully represent what their therapy has to offer. Moreover the topic of our investigation may not have been thought of as important by some CAM organizations. Finally, writing to organizations is less likely to elicit a response than addressing individuals in person. Nevertheless, with 66 organizations replying, this is the largest survey of its kind and therefore a first step towards answering the questions we posed. Future surveys should perhaps not cover the entire scope of CAM, but focus on the most established complementary and alternative disciplines.<sup>19</sup>

It is widely accepted that CAM therapies can provide beneficial non-specific effects that are often associated with clinically relevant outcomes. But can they have specific effects beyond a placebo response? It is interesting to compare the results of our survey with the trial evidence regarding effectiveness for the three most frequently cited conditions found in this survey: stress/anxiety, headaches/migraine and back pain (Table 2). According to our results, aromatherapy, Bach flower remedies, hypnotherapy, massage, nutrition, reflexology, Reiki and yoga are all recommended for stress/anxiety (Table 2). There is supporting

Table 2 Top 25 most frequently cited conditions with the therapies advocated

Common conditions (in order of most frequently cited)	Therapy											
	Aromatherapy	Bach Flower	Bowen	Chiropractic	Homoeopathy	Hypnotherapy	Magnet therapy	Massage	Nutrition	Reflexology	Reiki	Yoga
Anxiety/stress	x					x		x		x	x	x
Headaches/migraine	x					x		x		x	x	x
Back pain		x	x	x				x		x		x
Respiratory problems incl. asthma	x		x	x	x		x	x		x		
Insomnia	x					x		x		x	x	x
Cardiovascular problems incl. high blood pressure and circulatory problems				x					x	x		x
Musculoskeletal problems	x		x	x				x		x	x	x
Menstrual/PMT					x			x		x		
Arthritis and Rheumatism	x				x		x	x		x		x
Depression	x				x			x		x		
Skin problems incl. exzema	x		x	x	x			x		x		
Chronic fatigue/ME	x		x	x	x			x		x		
General mental stress								x		x		
Neck/shoulder pain		x		x				x				
Phobias/nervous habits						x		x				
IBS			x	x				x		x		
Sports injuries			x	x				x		x		
Sinus condition	x									x		
Hormonal problems	x									x		
Lack of confidence												
Constipation	x									x		
Trauma-emotional & physical		x						x		x		
Multiple sclerosis	x							x		x		x
Cancer	x							x		x		
HIV/AIDS	x							x		x		

Only therapies for which 2 or more responses were received were included in the table.  
x = The therapy was recommended by at least one respondent.

Abbreviations:

IBS = Irritable Bowel Syndrome.

PMT = Premenstrual Tension.

HIV = Human Immunodeficiency Virus.

AIDS = Acquired Immunodeficiency Syndrome.

Table 3 Physical therapies

Therapy [No. of questionnaires]	Top 5 conditions treated	Top 5 contraindications	Treatment cost First* (£)	Subsequent (£)	Range of hours of training
Aromatherapy [11]	anxiety/stress musculoskeletal insomnia headaches/migraine hormonal problems	pregnancy recent surgery thrombosis fractures/wounds some medications	21–50	21–40	200–500
Reflexology [11]	headaches/migraine back pain musculoskeletal menstrual/PMT stress/mental	unstable pregnancy acute infections/fever deep vein thrombosis surgical/medical emergency veruccas/mycosis	11–30	11–30	100–500
Bowen technique [2]	no obvious trend, however, large number of musculoskeletal conditions quoted	no obvious trend, "no response to treatment" quoted twice	21–30	21–30	100–180
Massage [8]	stress & tension back pain headache & migraine neck/shoulder pain insomnia	contagious & infectious disease broken skin cancer exacerbation of chronic condition skin disease	11–50	11–50	100–1000
Chiropractic [2]	no obvious trend	no obvious trend	31–50	21–50	3000–5000

\*Consultation and treatment.

Table 4 Mind/body therapies

Therapy [No. of questionnaires]	Top 5 conditions treated	Top 5 contraindications	Treatment cost First* (£)	Subsequent (£)	Range of hours of training
Yoga [2]	no obvious trend	no obvious trend	5–40	5–20	500–5000
Hypnotherapy [5]	anxiety/stress phobias/nervous habits smoking lack of confidence depression	psychosis schizophrenia epilepsy some depressions influence of drugs/drink	31–50	31–50	300–1600
Reiki [2]	no obvious trend: pain, depression & stress quoted twice	no obvious trend, 1/2 respondees quoted "not applicable"	11–50	11–40	1000
Magnetic therapy [2]	no obvious trend: lower back pain cramps & aches quoted twice	no obvious trend, pace makers & pregnancy quoted twice	<10–40	<10–40	500

\*Consultation and treatment.

Table 5 Complementary medicines

Therapy [No. of questionnaires]	Top 5 conditions treated	Top 5 contraindications	Treatment cost First* (£)	Subsequent (£)	Range of hours of training
Bach flower [2]	no obvious trend	no obvious trend	<10–20	<10–20	12–100
Nutrition [3]	arthritis/rheumatism chronic fatigue/ME hypertension Candida ulcers	medical emergencies eating disorders chemotherapy antibiotic dependent steroid dependent	21–> 60	11–40	100–3000
Homoeopathy [4]	conditions that can be regulated by the organism's life force/treated constitutionally presenting symptom, e.g. eczema, arthritis, menstrual symptoms, attention deficit disorder treated by treating the person and not the condition	medical emergencies indication for surgery no response oral medications contraindicated pregnancy if remedy is inappropriate for this condition	31–> 60	10–50	500–3000

\*Consultation and treatment.

**Table 6 Summary of clinical evidence from controlled clinical trials for therapies recommended for stress/anxiety**

Therapy	Summary of published clinical evidence
Aromatherapy	A systematic review of aromatherapy <sup>20</sup> included six RCTs concerning the use of aromatherapy for anxiety and well-being. With one exception, they all suggest positive effects.
Bach flower remedies	Two controlled clinical trials exist testing the effectiveness of Bach flower remedies in the treatment of examination stress in university students. <sup>21,22</sup> Neither trial reported a significant specific effect of 'five flower remedies' on anxiety above placebo, although a non-specific beneficial effect for both treatment and placebo was observed. <sup>22</sup>
Hypnotherapy	Four controlled trials have found hypnotherapy to be beneficial for state anxiety, <sup>23-26</sup> although one crossover study produced a negative result. <sup>27</sup>
Massage	Six controlled trials <sup>28-33</sup> support beneficial effects of massage on anxiety.
Nutrition	A clinical trial showed that dietary supplements reduced anxiety, as measured in a quality of life scale, in dieting individuals when compared to placebo, <sup>34</sup> indicating possible benefits of nutrition for anxiety.
Reflexology	A single controlled trial showed that treatment with reflexology reduced anxiety in patients suffering from this condition. <sup>35</sup>
Yoga	Two clinical studies indicate a beneficial effect of yoga on stress management: a controlled trial showed beneficial effects of Sahaja yoga on stress management in patients with epilepsy, <sup>36</sup> while an uncontrolled study of one year's duration showed improvements in obsessive compulsive disorder in patients who practised yoga regularly. <sup>37</sup>

RCT = Randomized clinical trial

**Table 7 Summary of clinical evidence from controlled clinical trials for therapies recommended for headache/migraine**

Therapy	Summary of published clinical evidence
Aromatherapy	One RCT on the effectiveness of topically applied peppermint oil for headaches reported significant analgesic effects compared to placebo. <sup>38</sup>
Chiropractic	A recent systematic review suggests that spinal manipulation has a useful effect on tension, cervicogenic and post-traumatic headaches, with five of the six studies reporting benefit. <sup>39</sup> Two studies showed positive effects of spinal manipulation on migraine, <sup>40,41</sup> although another study found no positive benefits above a control treatment. <sup>42</sup>
Hypnotherapy	Self-hypnosis appears to be more effective than waiting list control in the treatment of headache, <sup>43</sup> although it is unclear whether it is superior to other forms of relaxation. Different combinations of therapies including hypnotherapy have been compared to various control interventions in several trials <sup>44,45</sup> with favourable results.
Massage	One RCT showed beneficial effects of massage on migraine headaches, <sup>46</sup> while an uncontrolled study showed improvements in chronic tension headache in patients treated with massage. <sup>47</sup>
Nutrition	Nutrition has been shown to be important in the treatment of migraine, as the incidence of migraine is affected by food allergy in both children <sup>48</sup> and adults. <sup>49</sup>
Reflexology	Two trials support the use of reflexology for headache. A large observational study found that 81% of patients with headache were helped or cured at 3-months follow-up <sup>50</sup> while a single RCT showed a positive non-significant trend in the same condition. <sup>51</sup>
Yoga	Yoga, in addition to standard medication, produced significant reduction in headache activity when compared to standard medication alone in an RCT of subjects with mixed migraine and tension headache. <sup>52</sup>

RCT = Randomized clinical trial

**Table 8 Summary of clinical evidence from controlled clinical trials for therapies recommended for back pain**

Therapy	Summary of published clinical evidence
Chiropractic	The evidence for chiropractic is generally positive although methodological flaws in most of the trials performed to date prevent definitive conclusions. <sup>53</sup>
Magnet therapy	A recent pilot study reported no benefits of the use of magnets in the treatment of chronic low back pain. <sup>54</sup>
Reflexology	There is no strong trial evidence in support of reflexology. <sup>55</sup>
Massage	While a review of clinical trials concluded that there is no strong trial evidence in support of massage therapy, <sup>56</sup> a recent positive RCT <sup>57</sup> supports the view that massage is beneficial for this condition.
Yoga	Data from clinical trials on yoga is promising, <sup>58</sup> but too scarce to allow any firm judgement.

RCT = Randomized clinical trial

clinical evidence, of varying methodological quality, for all these therapies with the exception of Reiki (Table 6). The second most frequently cited condition emerging from our survey was headache/migraine, with aromatherapy, Bowen technique, chiropractic, hypnotherapy, massage, nutrition, reflexology, Reiki and yoga recommended as suitable treatments (Table 2). With the exception of Bowen technique and Reiki, all appear to be supported by clinical evidence (Table 7). Back pain is the condition that brings patients most frequently to try CAM (3) and, according to the present findings, the following treatments are recommended as promising: Bowen technique, chiropractic, magnet therapy, massage, reflexology and yoga (Table 2). Clinical trials have investigated the effectiveness of all these therapies for back pain, with the exception of Bowen technique (Table 8). Hence it appears that, in general, the recommendations by CAM organizations are supported by trial evidence.

In conclusion, this survey yields potentially useful data regarding the applicability of CAM in clinical settings. As a first step in bringing reliable information about CAM to the attention of health care professionals, this survey's findings may provide some guidance to those physicians wishing to advise or refer patients interested in using CAM.

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