



The use of complementary and alternative medicine by patients attending a UK headache clinic

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KEYWORDS

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Summary

Objectives: This study was undertaken in order to determine the extent of the use of CAM in a UK headache clinic.

Design: Ninety-two patients attending a headache clinic were given a questionnaire containing questions regarding their headaches and their use of CAM for headaches.

Setting: Outpatient headache clinic, Birmingham, UK. Main outcome measures. The use of complementary and alternative therapies and predictive factors.

Results: 32% of respondents had used a median of 3 different CAM therapies for their headache. The commonest source of recommendation of CAM use was a friend or relative (72%) and the commonest reason given for using CAM was as a last resort after trying all conventional therapies offered (48%). CAM therapies were perceived as beneficial by 60% of CAM users and no users perceived the CAM therapy to worsen their headache. 42% of CAM users had not disclosed it to their doctor or nurse, 80% of these giving the reason that the doctor or nurse never asked, rather than fear of discouragement or lack of understanding. Individuals who were in employment were more likely to have used CAM than those who were not. Binary logistic regression revealed Headache Impact Test (HIT-6) score to be a significant predictor of CAM use (Odds Ratio = 1.38 [95% CI 1.05–1.81]).

Conclusions: As a matter of desperation, headache clinic patients try CAM therapies. Health care professionals involved in the management of headache should be aware of this. There is a need for evaluation of the benefits and safety of CAM therapies for headache.

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Introduction

Headaches are common and lead to significant morbidity and significant economic costs to society.^{1–9} Conventional

pharmacological treatment includes various options for managing different types of headache.¹⁰ In addition to conventional pharmacological treatments, headache sufferers may try complementary and alternative medicine (CAM) therapies.^{11–15}

Recent surveys in the UK estimate 1 year prevalence of CAM use in the adult population between 20% and 28%, with 47% having used CAM at least once in their lifetime.^{16,17} A number of studies have attempted to determine CAM use in various diseases and disorders such

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as cancer;^{18–20} cardiovascular disease;²¹ arthritis^{22–23} and infertility.²⁴

A survey of CAM providers in the UK revealed headaches as the second most frequently cited condition believed to benefit from CAM therapies.²⁵ Headache was amongst the top four complaints presenting to complementary medicine practitioners in a US study²⁶ and was one of the most frequently cited health problems treated with CAM therapies in a random selection of US citizens.²⁷ Studies of CAM use by patients attending Italian headache clinics^{11,12,14} show a range of 29–40% of patients had used CAM therapies. A recent Austrian and German study revealed use of CAM by 81.7% of patients attending a headache clinic.¹⁵ A US study showed 85% of patients attending a headache clinic had used CAM for their headache.¹³ To date, no similar published study has sought to determine the prevalence of CAM use in patients attending UK headache clinics. Assumptions could be made based on studies in other countries but a study of cancer patients across Europe found widely varying rates of CAM use in different countries (15–73%).¹⁸ In Italy, the European country for which most is known about CAM use by headache clinic patients,^{11,12,14} CAM was used by 73% of cancer patients in contrast to 29% of UK cancer patients.¹⁸

The aim of this study was to survey a sample of patients attending a UK headache clinic in order to determine what proportion had used CAM in an attempt to treat headache, their reasons for using CAM and to identify any predictors of CAM use.

Materials and methods

This cross-sectional study employed an anonymous self-administered 34-point questionnaire. The questionnaire, together with an information letter was given to patients attending the nurse run headache clinic at Sandwell and West Birmingham NHS trust, Birmingham, UK between 15 May and 12 June 2007. Patients were asked to complete the questionnaire before leaving the clinic. All consecutive patients attending the headache clinic were given a questionnaire, except those who the headache specialist nurse and the researcher agreed would not be able to complete a questionnaire or it was inappropriate to give one to.

The definition of CAM in this study was essentially respondent-defined. The information letter accompanying each questionnaire stated CAM to be "... medical interventions, not taught widely at UK medical schools or generally available at UK hospitals e.g. acupuncture, aromatherapy, reflexology." The questionnaire included a list of possible CAM treatments and respondents could add additional therapies at the end of the list.

Data were inputted into Excel, which was used to generate descriptive statistics and SPSS (version 11) to carry out further statistical analysis. Bivariate analysis using Chi-squared or Chi-squared test for trend was used to identify any significant relationships between CAM use and any independent variables. Binary logistic regression was performed in order to identify any significant predictors of CAM use.

Prior to commencing the study, approval was obtained from both the Sandwell and West Birmingham Hospitals NHS Trust Research and Development Department and Sandwell and West Birmingham Local Research Ethics Committee.

Results

Of the 109 patients attending the headache clinic during the study period, 17 patients were not given a questionnaire as they were deemed unable to complete it or it was inappropriate to give one to them. Of the 92 patients given a questionnaire, 88 were returned. Not all returned questionnaires were fully completed but only those in which CAM use was not disclosed were excluded from the final data set. This left a final dataset consisting of 84 questionnaires, which was used in subsequent analysis.

Demographics

Table 1 shows the sociodemographic characteristics of the respondents. The majority (69%) were female. The median age was 38 years (range 16–71). The highest educational level completed by 39% of respondents was Secondary School and by 38%, College. 47% were employed full-time and 18% stated their occupational status as looking after home/family. 45% stated their religion as Christian, 18% Muslim and 16% Sikh. The ethnicity of the respondents included 51% White British and 40% Asian or Asian British.

Details of respondents' headache

The characteristics of respondents' headaches are summarised in Table 2. Respondents had suffered with headache for a median duration of 5 years and had first presented to a doctor with their headaches a median of 4 years ago. The Headache Impact Test (HIT-6) score is a validated tool for assessing the severity and impact of headache on daily life and ranges from 36 to 78.²⁸ The median HIT-6 score of the respondents was 63 (range 42–78). 49% of respondents had made between 1 and 10 consultations to a doctor or nurse regarding their headache, 16% had made over 40. Over the previous 3 months, 31% had experienced a headache every day, 16% had experienced a headache less than 5 days a month on average. The majority of respondents took prescribed medication for their headache with 34% taking only prescribed medication and 33% taking both prescribed and over-the-counter medication.

Use of CAM

29 respondents (32%) had used CAM for headache and had used a median number of 3 different types of CAM therapy (range 1–14). 3 CAM users did not state their expenditure on CAM for headache. 1 CAM user had spent nothing, 14 (54%) had spent less than £100, 4 (15%) had spent £100–£250, 3 (12%) had spent £250–£500, 2 (8%) had spent £500–£1000 and 2 (8%) had spent more than £1000.

12 (46%) of respondents that had used CAM for headache had also used CAM for other conditions. 8 of these used CAM for headache following CAM use for other conditions. 2 had used CAM for headache before using it for other conditions and 1 stated that they had used it concurrently for headache and other conditions.

27 different categories of CAM therapy had been used for headache by the respondents. The numbers of respon-

Table 1 Sociodemographic characteristics of respondents.

Query	Median (range)
Age ^a (years)	38 (16–71)
	<i>n</i> (%)
Gender ^b	
Male	26 (31)
Female	57 (69)
Highest educational level completed ^c	
Primary school	1 (1)
Secondary school	31 (39)
College	30 (38)
University degree	17 (22)
Occupational status ^d	
Part-time	10 (12)
Full-time	39 (47)
Self-employed	4 (5)
Unemployed	3 (4)
Full-time student	4 (5)
Retired	5 (6)
Looking after home/family	15 (18)
Permanently sick/disabled	3 (4)
Religion ^e	
Christian	37 (45)
Hindu	4 (5)
Muslim	15 (18)
Sikh	13 (16)
Other	4 (5)
No religion	9 (11)
Ethnicity ^f	
White British	42 (51)
White Irish	1 (1)
White other	2 (2)
Mixed	1 (1)
Asian or Asian British: Indian	19 (23)
Asian or Asian British: Pakistani	9 (11)
Asian or Asian British: Bangladeshi	3 (4)
Asian or Asian British: other Asian	2 (2)
Black or black British	3 (4)

^a Not disclosed by 2 respondents.

^b Not disclosed by 1 respondent.

^c Not disclosed by 5 respondents.

^d Not disclosed by 1 respondent.

^e Not disclosed by 2 respondents.

^f Not disclosed by 2 respondents.

dents using each type of therapy are shown in Table 3. The most commonly used were massage therapy (15), acupuncture (13), herbal therapy (12), exercise (11) and vitamins/nutritional supplements (10).

Respondents' experience of CAM use for headache

Patients' experiences of using CAM for headache are shown in Table 4. If respondents had used more than one CAM therapy for headache, the remaining questions referred to the CAM therapy that they had used most often. 2/24 respon-

Table 2 Characteristics of respondent's headaches.

Query	Median (range)
Number of years suffered with headaches ^a	5 (0.3–54)
Years since first consulted doctor about headaches ^b	4 (0–41)
HIT-6 headache severity score	63 (42–78)
	<i>n</i> (%)
Number of consultations regarding headache ^c	
1–10	40 (49)
11–20	17 (21)
21–40	12 (15)
>40	13 (16)
Number of days per month with headache (averaged over last 3 months) ^d	
<5	13 (16)
5–10	13 (16)
11–14	10 (12)
15–20	10 (12)
>20	11 (13)
Every day	25 (31)
Take for headache ^e	
No medication	9 (11)
Only unprescribed over-the-counter medication	19 (23)
Prescribed and unprescribed medication	27 (33)
Only prescribed medication	28 (34)

^a Not stated by 2 respondents.

^b Not stated by 5 respondents.

^c Not stated by 2 respondents.

^d Not stated by 2 respondents.

^e Not stated by 1 respondent.

dents (8%) had received the therapy free of charge on the NHS. Most (13/23) respondents considered their use of the CAM therapy to be 'occasional'.

The most common source of recommendation of CAM use was a friend/relative (18/25 responses, 72%).

CAM therapies were most commonly used after (67%) seeking help from a doctor

The commonest reason for using CAM was as a last resort, after having tried all conventional therapies on offer (48% of responses).

CAM therapies were not perceived to have any detrimental effect on headache by those that used them, with 60% reporting a reduction or great reduction in headache frequency or intensity. This perceived effectiveness is reflected in satisfaction with the CAM therapy used, with 58% being satisfied or very satisfied.

58% of respondents had told their doctor or nurse of their use of CAM for their headache and of those that did not, 80% gave the reason as 'the doctor or nurse never asked'. Only 2/25 (8%) respondents admitted to stopping medication while using a CAM therapy.

Table 3 CAM therapies listed on questionnaire or added by respondents and the number of respondents using each therapy for headache.

Type of therapy	n (%)
Herbal therapy	12 (10)
Vitamins/nutritional supplements	10 (8)
Specific diet/detoxification/fasting	3 (3)
Chiropractic	4 (3)
Massage therapy	15 (12)
Alexander technique	1 (1)
Acupressure and Shiatzu	5 (4)
Acupuncture	13 (11)
Exercise	11 (9)
Osteopathy	3 (3)
Craniosacral therapy	1 (1)
Reflexology	3 (3)
Yoga	7 (6)
Homeopathy	4 (3)
Iridology	1 (1)
Oxygen/ozone therapy	1 (1)
Folk remedies	1 (1)
Colour therapy/dance therapy/music therapy	3 (3)
Aromatherapy	7 (6)
Hypnosis	3 (3)
Self help/support groups	1 (1)
Meditation	5 (4)
Reiki	3 (3)
Energy/spiritual healing	2 (2)
Paul McKenna relaxation tapes ^a	1 (1)
Cold ^a	1 (1)
Indian remedies ^a	1 (1)

^a Therapies not included in list on questionnaire but named by respondents.

Predictors of CAM use

Bivariate analysis was carried out in order to test whether either of the various patient and headache characteristics was more likely to be associated with use of CAM for headache. HIT-6 score, when categorised into 42–60 and 61–78 showed a significant positive relationship with CAM use ($p=0.011$). Occupational status, when further categorised into employed and not employment showed a significant relationship with CAM use, with those in employment more likely to have used CAM for their headache ($p=0.032$). Binary logistic regression using the Enter method, resulted in a significant model ($\chi^2 49.376$, $df 24$, $p=0.002$) which explained 82.9% of the variance in CAM use. HIT-6 score was the only variable found to be a significant predictor of CAM use (Odds Ratio = 1.376, 95% C.I. 1.050–1.805, $p=0.021$).

Discussion

This is the first study of CAM use by patients attending a UK headache clinic. The main finding is that around one third of patients attending a UK headache clinic include CAM in the management of their headaches. In line with previous studies of use of CAM for headache,^{11–15} massage, acupuncture,

Table 4 Respondents' experience of CAM use with regard to the CAM therapy they have used most often for their headache.

Query	n (%)
CAM therapy received free of charge on NHS? ^a	
Yes	2 (8)
No	22 (92)
Use of this therapy is ^b	
A one-off	5 (22)
Occasional	13 (57)
Regular	5 (22)
CAM recommended by ^c	
Doctor	4 (16)
Nurse	2 (8)
Friend/relative	18 (72)
Self-recommendation	1 (4)
Therapy used ^d	
Before seeking help from doctor	2 (8)
After seeking help from doctor	16 (67)
At the same time as seeking help from doctor	6 (25)
Why CAM was used ^e	
Believed it would effectively treat headache	6 (21)
Last resort—had tried all conventional therapies offered	14 (48)
Doctor recommended	4 (14)
Unhappy with conventional medical treatment	5 (17)
Satisfaction with therapy ^f	
Very satisfied	3 (12)
Satisfied	12 (46)
Neither satisfied nor dissatisfied	2 (8)
Dissatisfied	7 (27)
Very dissatisfied	2 (8)
How did the therapy affect your headache frequency and/or intensity ^g ?	
Greatly reduced	2 (8)
Reduced	13 (52)
Stayed the same	10 (40)
Increased	0
Greatly increased	0
Have you told your doctor or nurse that you use this therapy ^h ?	
Yes	15 (58)
No	11 (42)
If not, why not ⁱ ?	
The doctor/nurse never asked	8 (80)

Table 4 (Continued)

Query	n (%)
It was not important for the doctor/nurse to know	1 (10)
It was none of the doctor's/nurse's business	0
The doctor/nurse would not understand	1 (10)
The doctor/nurse would discourage its use	0
Did you stop any medication for your headache provided by your doctor while you tried this CAM therapy ^l ?	
Yes	2 (8)
No	20 (80)
Was not taking any	3 (12)

^a 5 respondents did not disclose.

^b 6 respondents did not disclose.

^c 5 respondents did not disclose, 1 respondent gave 2 answers.

^d 5 respondents did not disclose.

^e 4 respondents did not disclose, 4 gave 2 answers.

^f 3 respondents did not disclose.

^g 4 respondents did not disclose.

^h 3 respondents did not disclose.

ⁱ 1 respondent did not disclose.

^j 4 respondents did not disclose.

herbal therapy, exercise and vitamins/nutritional supplements were the most frequently named CAM therapies used. As was found in other studies of CAM use for headache^{12,13,15} and also CAM use in general,²⁹ the majority of CAM users used more than one different therapy.

In concordance with other studies of CAM use^{11,12,29,30} friends and relatives rather than healthcare professionals or any other source were the commonest sources of recommendation of CAM use. This might reflect scepticism within the healthcare profession about the efficacy of CAM. The commonest reason given for using CAM was that it was a last resort, after trying all conventional therapies offered. This is also reflected in the fact that 2/3 of cases of CAM use were after seeking help from a doctor. The current study showed a measure of the impact of headache on daily life, HIT-6 score, to be a significant predictor of CAM use. This is not surprising given that the major reason given for using CAM is as a last resort. The patients with a higher HIT-6 score might be those for whom conventional treatment is providing least benefit.

The response rate for the survey was good so responder bias is unlikely to have played a part in affecting the results. It should be remembered that the participants of the study were patients attending a headache clinic and so represent only the tip of a clinical iceberg. It is known from Canadian and US studies that between 31%³¹ and 36%³² of migraine sufferers and 55% of tension type headache sufferers³² have never sought medical attention for their headaches. Of those that do seek medical attention, the rate of neurology referrals for patients diagnosed with headache in general practice in the UK has been shown to be 2.1%.³³ As the commonest reason for using CAM in this study is as a

'last resort' then one might expect CAM use to be higher in this headache clinic population than in either those consulting their general practitioner or those self-managing their headaches.

When comparing the current study with other UK-based studies of CAM use, our figure of 32% headache clinic patients using CAM is very similar to a study of patients attending an Epilepsy clinic which showed 34% had used CAM, although the majority were not using CAM for their epilepsy but for general health purposes.³⁴ In contrast, a recent UK study of patients who had consulted primary care with chronic musculoskeletal pain, showed that 84% had used at least one CAM treatment for pain in the previous year.³⁰ Comparison with general UK population surveys which show 20–28% of respondents using CAM in the previous year and 47% in their lifetime^{16,35} suggests that in contrast to patients consulting with chronic musculoskeletal pain, patients attending headache clinic are no more likely to use CAM for their headache than the general population are to use CAM for any health-related issue. The rate of CAM use shown here is also similar to the 31%, 40% and 29% shown in Italian migraine, chronic tension type headache and cluster headache patients respectively,^{11,12,14} but is far from the 81–85% reported in Austrian and German¹⁵ and US¹³ headache clinic patients. This difference might reflect cultural issues such as how and by whom conventional and CAM therapies are provided.

This study does have obvious weaknesses, in particular a limited sample size which will limit its power. Patients attending a specialist headache clinic may be a special subset of headache sufferers, with particularly therapy resistant (including a large proportion of medication overuse headache) and disabling headaches and so the results of this study might not reflect headache sufferers as a whole. Any study of CAM use at a single clinic may be biased towards the opinion of the health care providers at that clinic towards CAM. The clinic at which this study was carried out has the philosophy of not generally volunteering information about CAMs but giving information on CAMs if the patient requests it. Although CAMs are not included in the clinic's traditional treatment protocols, referrals to pain control clinic for assessment are regularly made, where acupuncture is offered as one of the options.

Previous studies of headache clinic patients have shown a number of significant predictors of CAM use that were either variables that were not measured in this study – consulting a higher number of specialists, a co morbid psychiatric disorder, high income, headache misdiagnosed or not diagnosed at all and never having tried a preventative pharmacological treatment – or were not found to be significant predictors in our data – a higher number of visits to doctor regarding headache.^{12,13} When comparing our study with general population studies of CAM use there are significant predictors of CAM use that were not found in this study, such as non-manual social class,³² education^{29,32,36} income³² and age.^{15,30,36}

The order of CAM use following seeking help from a doctor was also seen in previous headache clinic studies (around 2/3 cases)^{11,12} and Thomas and Coleman's²⁹ study of CAM use in the general UK population (62% sought conventional treatment before CAM). The majority of respondents in the Italian headache clinic studies gave their reason for using

CAM as that it was ‘‘Potentially beneficial for headache’’. The similar response in this study was ‘‘believed it would effectively treat headache’’ and was selected by only 21% of respondents. The ‘last resort’ option was not available on the Italian questionnaires so whether the difference is a true reflection of differing patient’s reasons, or simply an artefact of the pro forma questionnaire survey approach with pre-written answers to choose from, is not clear. The ‘as a last resort’ reason for using CAM has been found in other studies of CAM use.^{37,38}

It is beyond the scope of this article to review the evidence for efficacy and safety of CAM therapies but the majority of CAM users in this study (60%) found their most frequently used CAM therapy to have a beneficial effect on their headache intensity and/or frequency. Exactly the same proportion of CAM users found their CAM therapy to be beneficial in von Peter and colleagues’ US study.¹³ Rossi and colleagues’ Italian headache clinic studies^{11,12} showed less self-perceived efficacy of CAM treatments (40–41%). This difference may be due to the efficacy of all used CAM therapies being recorded or the fact that these studies were of patients with either migraine or chronic tension-type headache rather than all patients attending headache clinic.

Regardless of whether CAM therapies are generally safe or effective, their use has the potential to be harmful if patients do not inform their doctors that they are using them or if they stop effective conventional therapies while using a CAM therapy. In the current study 42% of CAM users had not told either their doctor or the headache specialist nurse about their CAM use. Although this is a significant proportion, disclosure of CAM use was higher than in other studies, in which 61%,¹¹ 60%,¹² 62%,¹⁴ 52%³² and 75%³⁹ had not disclosed CAM use to their doctor. One might speculate that a more solidary relationship between a headache specialist nurse and patients than between a doctor and patients might result in greater disclosure of CAM use. In this study, of those that had not disclosed CAM use, by far the majority (80%) of them gave their reason for non-disclosure as ‘‘the dr/nurse never asked’’ rather than disapproval or failure to understand, whereas in Rossi et al.’ study of migraineurs,¹¹ although the commonest reason for non-disclosure was also ‘‘the doctor never asked’’, this was only 37% of responses, with 22% saying ‘‘it was none of the doctor’s business’’, 9% saying ‘‘the doctor would not understand’’ and 4% saying ‘‘the doctor would discourage CAM use’’. The concern that patients may stop taking conventional therapy while trying a CAM therapy was not highlighted by this study as, of the 22 respondents that were taking medication before they used a CAM therapy, only 2 (9%) admitted to stopping their medication.

In terms of future research, it would be interesting to carry out the current study again but with a larger sample size to see if further significant predictors of CAM use could be detected. In addition it would also be interesting to conduct a general population survey to see if rates of CAM use in treating headache are similar to those attending headache clinics.

CAM is a common method of treatment tried by patients attending headache clinic. CAM use is therefore something that health care professionals managing headache should be aware of and enquire about. Research to quantify the efficacy of CAM use for headache is needed.

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