Outcomes of traditional Chinese medicine (traditional acupuncture) treatment for people with long-term conditions

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ABSTRACT

A set of outcome questionnaires has been developed to measure the range of treatment effects of traditional acupuncture. In this descriptive outcome study we validated these questionnaires in a busy National Health Service funded acupuncture clinic serving communities of diverse socio-economic circumstances. Some of the questionnaires performed better than others in this setting but EQ-5D and MYMOP-qual both showed statistically and clinically significant improvement in physical and psychological health after six weeks and six months, in all categories of disease and degrees of chronicity. Both the written qualitative data and the Patient Enablement Instrument (PEI) demonstrated considerable patient enablement and, for some patients, the acquisition of new coping and self-care strategies. The questionnaires were feasible to administer, acceptable to patients and clinic staff, and provided robust and detailed quantitative and qualitative outcome data of use for service provision, future planning, and as a basis for further cost-effectiveness studies.

1. Introduction

People having acupuncture and Chinese medicine for long-term health problems experience a range of different effects.[1–3] A prerequisite for studying the effectiveness of such care is to develop outcome measures than encompass as many of these different effects as possible. Similar problems face researchers who wish to investigate other types of complementary therapies and the even more complex interventions of integrative care. For example, Verhoef and colleagues have carried out a programme of work to develop outcome measures for integrative care and have suggested that a combination of objective measures, self-report questionnaires and qualitative methods are required.[4,5] In this paper, we report on the most recent stage in a twelve year programme of work to develop outcome measures suitable for measuring the effects of traditional acupuncture in people with long-term health problems.

This research programme started with a series of interview and questionnaire studies which aimed to delineate and describe the whole range of effects that patients experienced, leading to a model in which treatment effects were encompassed by three categories:

changes in symptoms and medication; changes in changes in energy, strength and relaxation; and changes in self-concept (self-awareness, self-confidence and self-responsibility).[6] These and subsequent studies have also developed a set of outcome questionnaires that aim to detect and measure changes in all three categories. This work developed one new outcome questionnaire, Measure Yourself Medical Outcome Profile (MYMOP),[7,8] and explored the usefulness of other previously published and validated scales and how they would best function together as a set of questionnaires.[9,10] Much of this work has used qualitative methods and small study populations. It has particularly focused on validity, in respect of answering the questions 'Does this questionnaire measure what it claims to measure?'; 'Does it measure what is important to patients?'; and 'Does the whole set of questionnaires measure the whole range of what patients perceive as important?'. The work also started to investigate acceptability and responsiveness of the set of questionnaires in the qualitative study populations. A result of the work to date has been to assemble a set of five brief questionnaires which measure, to the best of our current ability, the whole range of outcomes experienced by people having traditional acupuncture for long-term health problems. This set is called 'A set of patient-centred outcome tools for acupuncture and Chinese medicine: SPOT-ACM'.[11]

This paper takes this body of work another step forward, by using the set of outcome questionnaires with a much larger and more diverse UK patient population. In this descriptive outcome

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study we used the set of questionnaires with all new patients at a busy National Health Service (NHS) funded clinic offering acupuncture and other Traditional Chinese Medicine (TCM) modalities to people with a wide range of long-term health problems. The study aims to determine the feasibility, acceptability, responsiveness to change, and interpretability of this set of questionnaires when they are used before and after treatment in this setting.

2. Method

We carried out an observational, 'before and after' outcome study with consecutive eligible patients who attended The Gateway Clinic during the 5 months from September 2005 to January 2006. Lambeth NHS Ethics committee approved the study.

2.1. Setting and treatment

The Gateway Clinic, now in its 19th year of operation, treats approximately 400 patients a week and is staffed by traditional acupuncture practitioners who are registered with the British Acupuncture Council. The clinic receives NHS referrals for a wide range of health problems from an expanding population of local General Practitioners (GPs) in Lambeth, South London – a district that includes many areas of socio-economic disadvantage.[12]

At the first appointment, which is 40 min long, a senior practitioner formulates a Chinese medical diagnosis and a written treatment plan. Subsequent sessions are about 30 min in length and treatment is provided by a team of practitioners working in a room with 9 couches. Consequently patients may be seen by several different practitioners. The treatment plan is based on TCM based whole body acupuncture (eliciting de qi) but may also include Chinese herbs, dietary therapy and attendance at group sessions of Chi Kung or yoga. In this study, each patient was offered 10 sessions of traditional acupuncture, at about weekly intervals.

2.2. Study sample, sample size and recruitment

The study sample consisted of all new patients who attended the Gateway Clinic for their first appointment on a Monday (a 'new appointment' day and a day when a researcher was available) for a health problem that had been present for more than six months. The only exclusion criteria were: under 18 years of age; insufficient cognitive and English language skills to give informed consent and respond to the written questionnaires; previous acupuncture treatment in the last six months. We aimed for a sample size of at least 100 patients, in order to provide diversity of patient characteristics and sufficient numbers for descriptive statistics of subgroups such as duration and type of health problem.

Information about the study was included with the normal 'acknowledgement of referral' letter to the patient and at the first appointment, if they were willing to participate, the researcher saw them in a side-room immediately before their acupuncture appointment. The researcher (an acupuncture practitioner) provided full information and answered questions, obtained signed consent, and administered the first set of questionnaires. He kept a log of any problems or reflections on the process to help in the assessment of feasibility. One of the questionnaires, MYMOP-qual, requires the patient to disclose their particular problem and how it affects them, so patients were given the opportunity to complete this with the practitioner who treated them if they preferred. Before the 7th treatment questionnaires were placed in an envelope in the patients notes and were completed by patients in the waiting room and handed back to the receptionist in the sealed envelope. Six month follow-up questionnaires were postal and one telephone reminder was provided to non-responders.

2.3. Questionnaires

The SPOT-ACM set of questionnaires, each of which is one side of A4, consists of:

1. The Well-Being Questionnaire (W-BQ12).[13,14] The W-B12 has 12 standard questions, each with four response options, covering the three dimensions of negative wellbeing (anxiety and depression); energy; and positive wellbeing. An overall wellbeing score and individual dimension scores are calculated.
2. Measure Yourself Medical Outcome Profile with extra qualitative question (MYMOP-qual).[7,8] MYMOP is an individualised questionnaire where the patient is asked to nominate the problem that they are coming for help with (Symptom 1 & 2) and one way in which it affects their daily living. The patient scores severity on a seven-point scale and also scores their general wellbeing. An overall MYMOP profile score and individual dimension scores are calculated. An additional open question collects written qualitative data: 'What has been most important for you? Reflecting on your visits to the acupuncturist, what were the most important aspects for you?'
3. EuroQol (EQ-5D).[15] The EQ-5D has five domains (physical, self-care, ability to perform usual activities, pain/discomfort, and anxiety/depression) and three levels of severity on each domain. Scoring generates a single health state profile and subsequently a single utility score. Patients also rate their own health on a visual analogue scale, ranging from 0 (worst imaginable health state) to 100 (best imaginable health state).
4. The Patient Enablement Index (PEI) was designed for use by general practitioners but has also been used for acupuncture and homeopathy consultations.[16–18] PEI is designed for patients to make a retrospective assessment of patient enablement and has six questions: able to cope with life; able to understand your illness, able to cope with your illness; able to keep yourself healthy; confident about your health; able to help yourself. Each question has four response options: much better/ better (questions 1–4) or more (questions 5–6)/same or less/not applicable.
5. The Medication Change Questionnaire (MCQ)[19] is a new data collection tool for collecting detailed information about all medication being taken and includes a 7-day diary for prospective recording of actual intake.

All of the questionnaires were administered according to their standard instructions. MYMOP-qual and MCQ are designed to be administered face- to-face on the first occasion and self-completed thereafter, and the other questionnaires are designed for self-completion on all occasions. The questionnaires were completed on three occasions: immediately before the first treatment, before the 7th treatment (approximately six weeks) and after six months.

2.4. Data analysis

The questionnaire data, including transcribed responses to the open MYMOP questions, was entered onto a spreadsheet by JU and scores were computed according to the individual questionnaire instructions. CP and JU carried out a descriptive statistical analysis of the questionnaire scores at each time-point and of the change in scores between time-points. Paired sample t-tests were used to compute 95% confidence intervals for changes in scores of MYMOP,

EuroQol and W-BQ12. The MYMOP Symptom 1 nominated by the patient was categorised using the International Classification of Primary Care (ICPC)[20] using the presenting problem level of the classification. The MYMOP questionnaire also provides categorical data on duration of main health problem.

Written qualitative responses to the open optional question on MYMOP were transcribed and analysed by a simple content analysis. A set of descriptive categories was developed by reading and re-reading the data, breaking the data down into short sections or 'meaning units' and developing a list of preliminary categories to encompass all the data. As each participant's data was subdivided and assigned to a category, new categories were developed or original categories were expanded or merged. The content of each category was then summarised, paying attention to any differences between the data from the two time periods. A quantitative count was also made of the number of participants that contributed responses to each category and the count displayed as pi-charts.

3. Results

3.1. Questionnaire response rates

Fig. 1 is a flow chart showing attrition and response rates. Response rates at 6 weeks were 116 (91% of those still attending for treatment and 55% of original sample). There was very little difference between the 6 week responders ($n = 116$) and non-responders ($n = 89$) for mean age (48;43 years) , sex (64%;68% female), duration of problem (47%;42% over 5 y) or baseline MYMOP profile score (4;4) The six month questionnaires were completed by 78 patients (38% of initial sample).

The Medication Change Questionnaire (MCQ) was only completed by 15% of participants at baseline and 6 weeks. On recruitment patients declined completion either because they were not taking any Western medication, or because they were on such a complex drug regime that the questionnaire was considered too onerous. In view of these very low response rates, the MCQ data is not reported on in this paper. The remainder of the findings, relating to t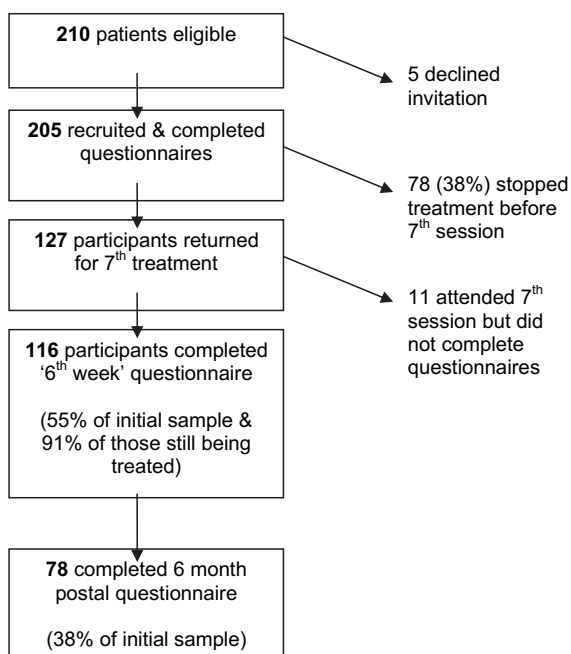he responsiveness and interpretability of the questionnaires, are presented for the 116 patients for whom paired questionnaires are available at baseline and 7th treatment (questionnaire responders) and, in less detail, for the 78 patients who provided 6 month data (6 month responders).

3.2. Baseline characteristics of the questionnaire responders

These baseline characteristics are shown in Table 1. They were men and women spanning a wide age range, the large majority of whom had long-term health problems – half having had their problem for over five years. The type of health problems being treated spanned ten of the ICPC categories, but nearly half of the patients presented with musculoskeletal problems.

3.3. Questionnaire Scores

The scores for the MYMOP, EuroQol and W-BQ12 questionnaires at all three time points are given in Table 2 and depicted graphically in Fig. 2. MYMOP and EuroQol show a statistically significant improvement in scores after six treatments. MYMOP scores improved after 6 treatments for all dimensions, with a mean (95% CI) change in the 7-point MYMOP profile score of 0.97 (0.74; 1.20). The EQ-5D utility score (range −0.59 to 1.0) improved by 0.18 (0.24; 0.13) and the EuroQol VAS score improved by 8.28 (11.59; 4.98). These improvements were maintained in the smaller sample at 6 months. The W-BQ12 scores showed much smaller changes with less consistency across dimensions. Total wellbeing score (range 0–36) showed a reduction in wellbeing of 1.59 (−2.62;−0.55) after six treatments and no statistical significant change at 6 months.

The Patient Enablement Index (PEI) score after six treatments ranged from 0–12 (higher is more enablement) with a mean (SD) of 4.57 (3.20) which is equivalent to a score of 38% (as it is usually expressed). After six months the PEI was 40% [4.76(3.25)].

3.4. Analysis of change according to duration of complaints and type of problem

The mean change in MYMOP profile score after six treatments varies very little according to the duration of the problem (Table 3) or the type of problem (Table 4). Changes in EQ5D and PEI are also stable across these subgroups.

3.5. Qualitative data from MYMOP

Of the 116 responders at 'after 6 treatments' 94 (81%) responded to the optional open question 'What has been most important for you? Reflecting on your visits to the acupuncturist, what were the most important aspects for you?' At six months 51(67%) responded.

Fig. 1. Flow chart of study.

Table 1
Baseline characteristics of the 'questionnaire responders' ($n = 116$).

Characteristics at baseline	Responders. $N = 116$
Mean age (range)	48 (23–87)
% Female	74 (64%)
Duration of health problem: 4–12 weeks	4 (4%)
3–12 months	21 (18%)
1–5 years	36 (31%)
Over 5 years	55 (47%)
Type of problem (ICPC category[a])	
Musculoskeletal	49 (42%)
Psychological	20 (17%)
General & fatigue	15 (13%)
Digestive	11 (10%)
Other	21 (18%)

[a] ICPC = International Classification for Primary Care.[20]

Table 2
The scores for the MYMOP, EuroQol and W-BQ12 questionnaires at all three time points. MYMOP scored 0–6 with lower scores = better health; W-BQ12 scored 0–12 on each dimension, 0–36 on total score with higher scores = more of each dimension or total wellbeing. EuroQol utility score ranges from −0.59 (worse than death) to 1.0 (best possible health state) and VAS score from 0 (worst imaginable health state) to 100 (best imaginable health state).

	Before treatment	Before 7th treatment	Change in score between baseline & 7th treatment		After six months.	Change in score between baseline & six months[a]	
	Mean (SD)	Mean (SD)	Mean (SD)	95% confidence interval	Mean (SD)	Mean (SD)	95% confidence interval
MYMOP		n = 114			n = 76		
Symptom 1	4.32(1.29)	3.31(1.33)	1.01(1.67)	0.70;1.32	2.95 (1.61)	1.45 (1.75)	1.05;1.85
Symptom 2	4.02 (1.30)	2.91 (1.48)	1.11 (1.74)	0.78;1.45	2.89 (1.49)	1.14 (1.68)	0.74;1.53
Activity	4.39 (1.35)	3.34 (1.39)	1.05 (1.67)	0.69;1.40	3.16 (1.85)	1.56 (2.11)	1.00;2.12
Wellbeing	3.45 (1.57)	2.87 (1.23)	0.58 (1.81)	0.24;0.93	2.84 (1.38)	0.74 (1.90)	0.30;1.19
MYMOP profile	4.0 (1.04)	3.03 (1.10)	0.97 (1.22)	0.74;1.20	2.95 (1.27)	1.16 (1.40)	0.84;1.48
W-BQ12		n = 111			n = 76		
Negative wellbeing	4.52 (3.14)	3.47 (2.49)	1.05 (2.19)	0.64; 1.47	3.66 (3.01)	1.10 (2.89)	0.35;1.67
Energy	4.85 (2.81)	5.41 (2.30)	−0.56(2.83)	−1.09;−0.03	5.18 (2.50)	−0.51(3.09)	−1.22;0.19
Positive wellbeing	6.31 (3.01)	6.18 (2.51)	0.13 (2.30)	−0.44;0.69	6.29 (2.98)	−0.42(3.29)	−1.17;0.33
Total Wellbeing score	18.52 (6.86)	20.11 (5.54)	−1.59(5.51)	−2.62;−0.55	19.63 (6.84)	−1.42(6.98)	−3.02;0.17
EuroQol		N = 116			N = 75		
EurQol-5D utility score	0.45 (0.35)	0.63 (0.26)	0.18 (0.31)	0.24;0.13	0.62 (0.26)	−0.18(0.34)	−0.25;−0.09
VAS score	53.98 (21.46)	62.27 (17.86)	8.28 (17.74)	11.59;4.98	65.09 (18.03)	−12.03	−16.48;−7.57

[a] the t-test for six months is performed on the 76 paired scores, consequently the mean at baseline for this test differs a little to that in the table (which is for the 116 pairs).

There were no major differences between the responses at the two timeframes, so the data will be described as a whole.

The responses varied in length from 1 to 150 words, but typically they were 10–30 words long. A minority of the responses expressed a single idea, such as 'No change with the flushes', but more often they combined a number of responses, such as 'Relaxation, emotional relief, energy.' About a third of the responses were longer and more complex, such as those in Table 5.

The final eleven categories and their relative frequency in the 'after six treatment' data are shown in Fig. 3. Their distribution at 6 months is very similar. Analysis of the data from the 'after 6 treatments' questionnaires resulted in 142 data segments (meaning units that could be assigned to a single category) from 94 responders. The 'after 6 month' questionnaires resulted in 106 data

segments from 51 responders. The categories with the most segments of data assigned to them were: Effect on symptoms; Relaxation & sleep; Wellbeing & general benefit; Practitioner listening & empathy; Coping & self-care; and Clinic atmosphere & organisation. Examples of data in each category are provided in Table 6.

Effect on symptoms was the biggest category (68 out of total 248 data segments: 27%) and included responses about hoped for improvements (less so after 6 months) as well as various degrees of improvement and a lack of improvement. *Relaxation & sleep* (14% of the total) responses described feeling more relaxed and an improvement in their sleep, which were often linked with each other and sometimes with improved wellbeing, improved mood or feeling more energised. *Wellbeing & general benefit* (10% of the
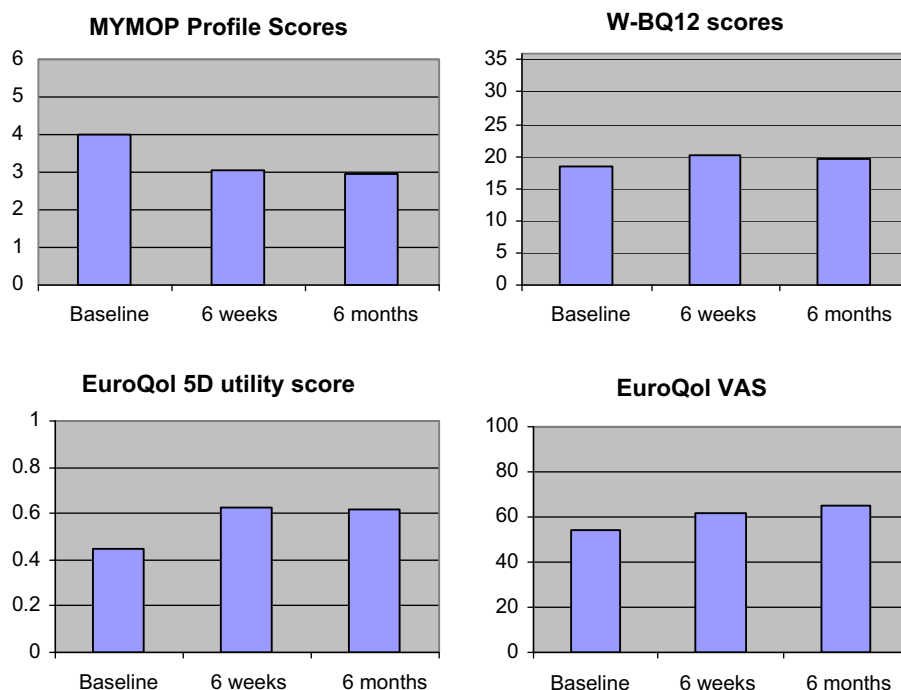
Fig. 2. Questionnaire scores at baseline, after six treatments and after six months (Better health depicted by lower scores in MYMOP and higher score in EuroQol and W-BQ12).

Table 3
Change in MYMOP profile score according to chronicity of problem.

Duration of problem	N (number in group)	Mean change MYMOP profile from baseline to after 6th treatment	95% Confidence Interval of the Difference
4–12 weeks.	4	0.86	−2.18;3.89
3–12 months.	20	0.92	0.43; 1.40
1–5 years	36	1.08	0.68;1.47
>5 years	54	0.93	0.57; 1.28

total) responses included simple naming of herbs or acupuncture as important or helpful and some more detailed descriptions of general positive effects. *Talking, listening, and practitioners' attention to them as an individual* (10% of the total) consisted of data that was rich in adjectives and concepts. A wide range of words were used to describe the practitioners including considerate, respectful, caring, kind, understanding, professional, helpful, reassuring, and supportive. Being listened to and acknowledged as an individual person was important, as was being given support and advice. *Coping better, self care including time to focus on myself* (10% of the total) included comments on valuing the time and opportunity to focus on oneself; learning new ways of coping with symptoms; and for a few people taking charge of their life in a major new way. *Clinic atmosphere & organization* (8% of the total) responses indicated that in addition to valuing their interactions with the acupuncture practitioners, positive aspects of the other staff at the clinic or the friendly atmosphere and organisation of the clinic were also important.

Negative effects. Only nine responses were coded as negative effects and all of these are provided in Table 7. They describe the disappointment of no or a short-lived benefit, a need for more treatment, fatigue after treatment, and a fear of needles.

4. Discussion

This study aimed to determine the feasibility, acceptability, responsiveness to change, and interpretability of this set of questionnaires when they are used before and after traditional acupuncture treatment in a busy NHS setting. The main limitations of the study were the lower than anticipated response rates, which were caused by 38% of patients dropping out of treatment before the 7th visit and a lack of intensive reminders for the six month questionnaires. Nevertheless at six weeks response rates were 91% of those attending and 57% of original sample and there were no significant differences between responders and non-responders. The pragmatic decision to recruit on one day of the week only, rather than or randomly, could be criticized but there is no obvious bias introduced in this way.

4.1. Feasibility and acceptability

With the exception of the MCQ, discussed in more detail below, the questionnaires proved both feasible (*are the questionnaires*

Table 4
Change in MYMOP profile score according to ICPC category of problem.

ICPC category of Symptom 1 on MYMOP(most common categories)	N (number in group)	Mean change MYMOP profile from baseline to after 6th treatment	95% Confidence Interval of the Difference
Musculoskeletal	49	1.01	0.65;1.38
Psychological	20	0.95	0.35; 1.54
General & fatigue	15	0.56	−0.02;1.14
Digestive	11	0.86	0.08;1.63

Table 5
Examples of longer complex responses to the questionnaire question: '*What has been most important to you?*'

" Regularity, kindness, super competence of practitioners which has led me to trust more than I have ever trusted any practitioner. Clear information, great listening, learning about the interconnectedness of all my symptoms for the first time. Being taken seriously, being treated with respect." (after 6 treatments)

"Know how, kindness, calling me for an appointment if a cancellation occurs. Broadness of questions before session starts to cover off additional upsets and ailments. I have had acupuncture before but not for chronic back pain, and have to say every time I have had a session it has virtually relieved painful symptoms and had a hugely calming effect. I will be sorry and bit worried when my sessions are over." (after 6 treatments)

"Advice from practitioners very good regarding diet and lifestyle. Holistic view. Social model approach to clinic. Treatments helped me to relax. Acupuncture also helped with other niggly symptoms. (after 6 months)

"Friendliness of staff, not feeling judged, increase in energy levels, feeling more relaxed, having time to myself away from usual stresses. Great improvement in health, no UTI's at all, and no need to take antibiotics, excellent service and great ethos." (after 6 months)

easy to administer and process?) and acceptable (*are the questionnaires acceptable to patients?*) in this setting although more intensive reminders would be required to improve on the 38% postal response rate at six months. Completion of the questionnaire set inclusive of the explanation and informed consent took approximately 10–12 min and a researcher working 9 hrs a week over five months successfully recruited 205 patients and entered and cleaned all the data. Analysis of the data required some academic input but was a straightforward process for a researcher who only has basic statistical skills. Only five patients that met the inclusion criterion declined to take part and 91% of the patients attending their 7th treatment completed and returned the questionnaires. The optional open question on MYMOP appeared popular with patients, with 91% (after 6 treatments) and 67% (after six months) providing a rich variety of written qualitative responses.

The Medication Change Questionnaire (MCQ) was the exception to this success, on grounds of both feasibility and acceptability. The majority of the study population rejected the MCQ as either irrelevant or too time-consuming. In his reflexive notes the researcher recorded that he '*may have unintentionally amplified reticence from this group of patients, after observing it in patients early in study, and then transferring this attitude onto subsequent patients*'. We suggest that a screening question is added at the beginning of the MCQ to allow those not taking any medication to say so and then do no more. Even so, it appears that collecting usable and detailed medication change data remains a time-consuming process that is difficult to integrate into routine data collection. Although difficult, researchers should keep working on this challenge, because it has been shown that reducing conventional medication is an important aim and outcome for some people using complementary therapies.[8]

4.2. Responsiveness

Responsiveness (*does the instrument collect changes over time that matter to patients*) was demonstrated for MYMOP, EuroQol and PEI questionnaires in this population, with mean change scores at both time intervals of both statistical and clinical significance. The role of W-BQ12 was less clear. In the rest of this section we will discuss only the 'after six treatments' data, as this had higher response rates.

The mean (95%CI) MYMOP profile change of 0.97 (0.74;1.20) can be compared with previous work with MYMOP[7,21] and other
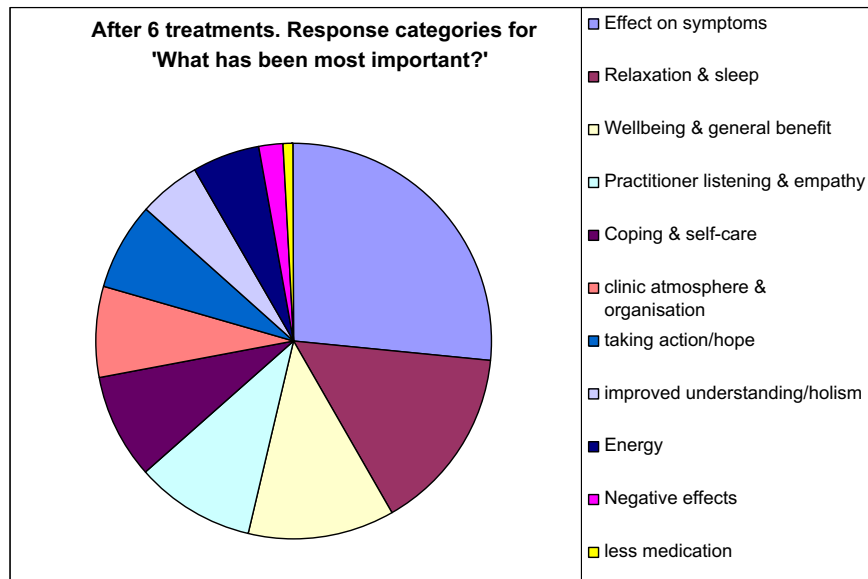
Fig. 3. Response categories for 'What has been most important?'

seven-point outcome scales that suggests that clinically important changes on such scales are represented by mean changes over 0.5 (small), over 1.0 (moderate) and over 1.5 (large).[22] The EQ-5D utility score improved by 0.18 (0.24;0.13) that, for a scale that has been criticized in the past for low responsiveness[23] is an unexpectedly large shift. This high responsiveness of EuroQol, which is largely about function, may be related to the predominance of musculoskeletal problems in our patient population. The patient enablement score of 38% was a little lower than the score of 45% found in a study of traditional acupuncture in private practice check[17] but was similar to the 39% found at the Glasgow Homeoepathic Hospital[24] and considerably higher than the 31% average in previous studies in conventional primary care.[25]

In contrast to these three measures, the W-BQ12 showed a very small decrease in wellbeing (increased negative wellbeing; decreased energy; no change in positive wellbeing) which is not likely to be clinically significant. The W-BQ12 has been extensively validated and used in evaluating diabetes care and in some other chronic conditions[13,14,26] but has not previously been used to evaluate traditional acupuncture. This lack of change in W-BQ12 may represent an actual lack of change in wellbeing or may represent a change that is not detected by this particular instrument. Although the MYMOP wellbeing change score was smaller than the profile score it was, at 0.58, likely to represent a clinically significant improvement in wellbeing. However, it is likely that MYMOP's very general question about wellbeing represents a different concept to that encapsulated by the W-BQ12 scale which specifically focuses on negative wellbeing (anxiety and depression) as well as energy and positive wellbeing.

Table 6
'What has been most important for you?' Examples of data segments in the main categories.

i) Effect on symptoms.
   "trying to sort my painful feet out"
   "Eczema has improved a lot, I am much happier."
   "acupuncture helped with back pain but only for 1 or 2 days"
ii) Relaxation & sleep.
   "Having a pin placed between eyes that made me feel relaxed, plus being more able to deal with my situation. The effect lasted 4–5 days"
   "Acupuncture helped my body to relax. I slept better without waking up during the night"
iii) Wellbeing and general benefit.
   "This has been the one thing in my life that has consistently brought relief. It has enabled me to connect to a sense of wellbeing, to remind me how it feels, although as yet I have been unable to maintain it."
   "Knowing that something natural and constructive could be done to improve my wellbeing"
iv) Talking, listening, and practitioners' attention to them as an individual.
   "As the pain shifts slightly, it's very useful, the treatment can be adjusted to fit"
   "Concern, attention and skill and knowledge of the therapists."
v) Coping better, self-care including time to focus on myself.
   "Making the time to relax, trying to learn to switch off"
   "feel more able to manage own health as I don't want to visit GP. Not visited GP for 5 months."
   "I also got good advice about breathing exercises. The practitioner's kindness and professionalism make visiting The Gateway a very positive experience which helps me take an interest in and take charge of my own health."
   "I am amazed at how much positive change has occurred in my life and although it could be said that I initiated it, or put into place these changes, I think the acupuncture was the underlying factor in helping me make these changes. Thank you."
vi) Clinic atmosphere & organisation.
   "friendliness of staff, not feeling judged, ….. excellent service and great ethos"
   "Flexibility of treatments to accommodate other minor ills."
VII) New, improved, or holistic understandings (often linked with self-care)
   "learning about the interconnectedness of all my symptoms for the first time"
   "Quiet time - realising the needs for balanced lifestyle for overall wellbeing."

Table 7
'What has been most important for you?' All the data segments that were categorised as 'negative effects'.

"some made me very fatigued afterwards and unable to operate at my usual level for days after."
"I will be sorry and bit worried when my sessions are over"
"How to overcome the [fear of] needles"
"my treatment helped for a while but then my pain returned"
"No change with the flushes"
"My chronic back pain as it was when my doctor referred me."
"Pain relief but unfortunately the pain was alleviated only for 2–3 h and the pain returned."
"all this is beneficial to me but wears off about 2–3 weeks after finishing my course at the clinic".

4.3. Interpretability

This combination of quantitative and qualitative questionnaire data has provided robust and detailed information which is useful for the Gateway clinic, for health service decision-makers and for researchers wishing to build the evidence base in this area. After the project ended, the clinic decided to continue collecting routine outcome data by using MYMOP-qual with all patients. Used in this observational study, the SPOT-ACM set of questionnaires demonstrated a statistically and clinically significant improvement of physical and psychological symptoms and quality of life for a diverse population of people with long-term conditions. This improvement was evident across different disease categories and for different levels of chronicity and was sustained for six months. The data also demonstrated considerable patient enablement and, for some patients, the acquisition of new coping and self-care strategies. Although the observational design can only prove association rather than certain cause and effect, the sustained improvement after 6 months is particularly encouraging in view of the fact that 47% of the patients had their conditions for over 5 years. It suggests that Traditional Chinese Medicine might provide an effective treatment strategy for complex long-term health problems within the NHS, and that further research is indicated. The multi-bed approach is likely to result in a relatively low cost service and this, coupled with the large change score on the EQ-5D utility measure, suggests that a cost-effectiveness study would be appropriate.

This study raised questions about the usefulness of including the W-BQ12 questionnaire in this population. The qualitative data suggests that the changes in self-concept, which were the target of the W-BQ12, were present but to a relatively small degree. This might be a function of the socioeconomically diverse population and/or of the preponderance of musculoskeletal problems. The hypothesis that it is a function of the 'multi-bed' clinic approach at the Gateway is somewhat disproved by the qualitative data which indicated that patients felt very supported, cared for and involved in personalised care. Future work could explore alternatives to the W-BQ12, such as The Positive States of Mind scale.

5. Conclusions

The combination of EQ-5D, MYMOP-qual and the PEI questionnaires were feasible to administer in an NHS multi-bed acupuncture clinic, were acceptable to patients and clinic staff, were sensitive to change, and provided robust and detailed quantitative and qualitative outcome data of use for service provision, future planning, and as a basis for further cost-effectiveness studies.

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