

# A descriptive outcome study of 291 acupuncture patients

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## Abstract

A prospective and descriptive study of acupuncture patients outcomes. It involved 13 acupuncture practices in South-west England, of which 12 were private practices and 1 was an NHS pain clinic. Over a year 291 patients were recruited to record their symptoms using the 'Measure Yourself Medical Outcome Profile' questionnaire. This was completed at the first and third visits, and by post 4 months after the first visit. In brief the results were :

- The majority of patients reported improvement at the third visit (69.4% improved) and at four months (51.5% improved).
- The main problem categories were musculoskeletal (38.5%), Neurological (13.8%), and Psychological (12.0%).
- The pattern of improvement for chronic and acute patients was similar.
- 61% of patients had a chronic condition.

## Introduction

The Acupuncture Research Resource Centre (ARRC) symposium in 1998 was the inspiration to form a local group of acupuncturists to undertake research. A theme repeated by several speakers and in discussions that day was the importance of acupuncturists initiating research for our own knowledge within the profession, and to be proactive in the presentation of acupuncture outside the profession. Rosemary Norton and Charlotte Paterson, travelling back to Taunton in the train, discussed what had been said that day. One of the issues raised was the difficulty for an individual acupuncturist to see enough patients to gather significant numbers in order to do research. The idea was formed to collect a group of acupuncturists together all doing the same research. Recruitment of acupuncturists was clearly the first step. The question 'Who is an acupuncturist?' needed consideration. Training can range from those who have successfully completed a three year training in the UK or China, to months

of training (usually in China) or even to those who are trained over several weekends.

It was decided to use members of the British Acupuncture Council (BAcC), as the training criteria used by BAcC for accepting members could be used as defining who is an acupuncturist.

A geographical area covering Devon, Somerset, Dorset and Bristol was chosen for ease of attending meetings. A letter was sent to all 126 BAcC members in that area outlining the proposed research and inviting them to a meeting. Seven acupuncturists attended the first meeting and more joined later. A total of 18 acupuncturists have been involved up to time of printing.

13 acupuncturists were involved in this study, 12 who worked as sole practitioners in private practice and 1 who worked in an NHS pain clinic. The acupuncturists recruited contributed for different lengths of time, varying from six weeks to twelve months. The group formed was named the South West Acupuncture Research Group.

**The aims of this group were:**

- to make research part of good acupuncture practice
- to increase our knowledge of research
- to collect data as a resource for ourselves or for further research
- to hold regular meetings to maintain interest and enthusiasm, and to standardise the research methods used within the group.

Working as a group had several advantages over an individual researcher working alone. For example, several acupuncturists could collect more data than a single practitioner and the mutual support of a group would encourage the perseverance to complete projects. Knowledge could be pooled and the members of the group would have the opportunity to work with an experienced researcher with an interest in complementary medicine, Dr. Charlotte Paterson. Warwick House, the research General Practice where Dr. Paterson and one of the acupuncturists work together, provided a base for the project.

**Study Aims**

The group's initial study, in attempting to tackle some of the issues brought up at the ARRC symposium, had two main aims. First, to describe the change in health as perceived by the patient, over a period of four months starting from their first treatment. Second, to build up a database of such outcome information on a large number of patients. Results for the first 291 patients are presented here, though there is now (June 2001) data on about 600 patients.

**Method****Outcome measure questionnaire**

The questionnaire used was 'Measure Yourself Medical Outcome Profile' (MYMOP). The MYMOP questionnaire was designed by Dr. Paterson. It has been used in several validation projects and pilot projects, one of which had included one of the acupuncturists in the group so there was familiarity in the practicalities of its use in an acupuncture consultation. MYMOP had already been used in several other studies (Ref. i-iv). This saved us the huge problem of designing our own questionnaire.

On the first occasion it is completed within the consultation and the patient chooses one or two symptoms and one activity of daily living which they have come for help with and which they consider the most important. The items must all relate, in the patient's opinion, to the same problem. These choices are written down in the patient's own words and the patient then scores them for severity over the last week on a seven point scale. A score is also allocated to 'well being' on a seven point scale. On follow-up questionnaires the wording of the previously chosen items is unchanged but there is an optional fifth item for a new symptom. The second symptom and the activity are optional.

Used in this way MYMOP produces a problem specific profile of four scores, one for each of the two symptoms, one for activity and one for well-being. The

data covering patient age, gender, duration of complaint and concerns about medication, as well as scoring the severity of the primary symptoms.

The graphs in this article compare the results between the patients' first and third visits to indicate early changes, and four month follow ups to show longer term changes.

**Recruitment of patients**

All new patients, including returning patients that had not been seen by a therapist for three months or longer, were asked if they wished to take part in the research. The therapists explained to the patients what would be involved, and an information sheet was given to each patient who signed a consent form if they wished to be in the research project.

Some patients were excluded from the project for the following reasons:

## research like this can help to educate the public and other health professionals on the wide scope of acupuncture

mean of these scores, the MYMOP profile score, can also be computed.

Patients were asked to complete the MYMOP form at the clinic on their first, second and third visits (or optionally they could take the form home on their second and third visits). They also received a MYMOP form through the post four months after their first visit. Other MYMOP forms were completed at the therapist's discretion to allow for flexibility in timing, e.g. between fast resolving acute problems and slower resolving chronic problems. Patients were treated as often and for as long as was clinically required; the only change to normal practice was filling out the MYMOP forms.

Using the MYMOP form we gathered

1. Those who had difficulty in understanding the numbers used for measuring outcome, e.g. young children.
2. Those patients coming for prevention of symptoms, where the initial score might be expected to show low or no symptoms, and even if they rose subsequently might still be an improvement for the patient compared to previous occurrences.
3. Infertility cases were also excluded, as the results of either pregnant or not pregnant were not suited to a measurement scaled 0 to 6.
4. In order to standardise the timing of the questionnaire, we used the first, second and third visit with a four month follow up. This made it inappropriate for problems of a periodic

visit and at the four month postal follow up (See Pies 03 and 04). The results at four months shows that the improvement was continued or maintained in the longer term. This may be due to a number of factors but acupuncture was the factor common to all. The improvements shown are especially interesting considering that most of the main presenting symptoms were long term. 106 (36.43%) of the patients had had their main symptom for 1 to 5 years, 75 (25.77%) for over five years.

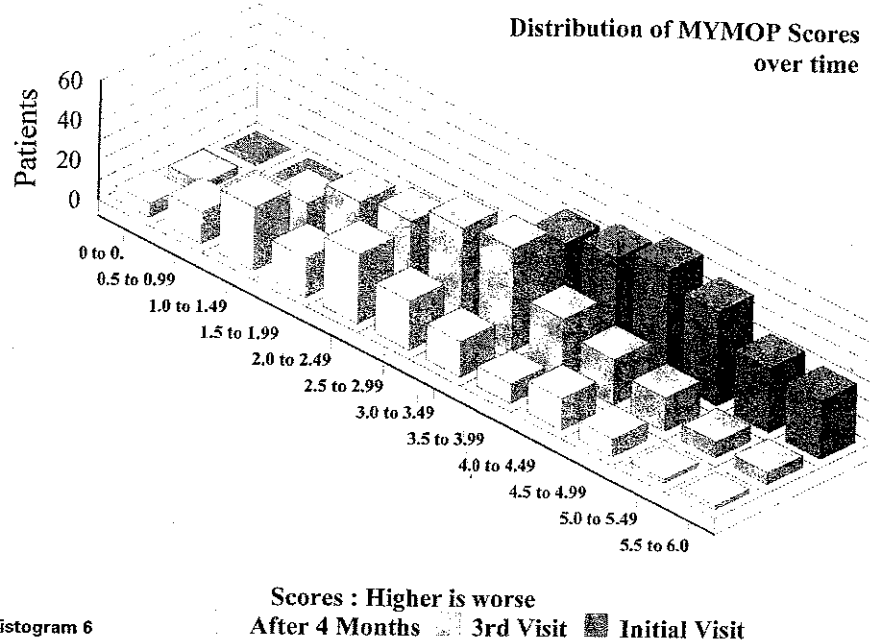
We looked to see if the response was different for the chronic (over one year) compared to the general. The trend was similar for both. The early improvement shown at the third visit was interesting, considering the duration of the complaint.

There was a wide range of conditions treated in this study. This prompted the reflection within the group that research like this can help to educate the public and other health professionals on the wide scope of acupuncture. It was also a reminder that there are more areas to research in acupuncture than the favourite subjects like nausea or headaches.

However, there were some categories that had surprisingly low numbers, e.g. digestion and urinary problems. The low numbers illustrate the problem of collecting significant amounts of data from acupuncturists working in general acupuncture practices. Even with 13 acupuncturists collecting data over 12 months we still only treated 4 urinary cases. Was this a chance statistic or are the public less aware that acupuncture can help such conditions? As a group we recognised that many patients had symptoms which fell under the more sparsely populated categories and which the patients themselves did not consider their primary reason for using acupuncture. Could another study follow up the beneficial side effects of acupuncture?

This project is still ongoing, continuing to build up the database. As the numbers increase we can study how different conditions respond to acupuncture in more depth.

Copies of the MYMOP questionnaire can be obtained from: Warwick House



Histogram 6

Medical Centre, Upper Holway Road, Taunton, TA1 2YJ. Telephone: 01823 282 147

### The Acupuncturists

A broad representation of acupuncturists, all members of the BAcC, took part in this study. They had been practising from 2 to 19 years, and qualified from five different colleges. A further eight acupuncturists expressed enough interest in the project to be sent MYMOP forms, but five of these did not complete the forms and 3 returned less than 3 completed forms. Undertaking research in a peer group has worked well for this

group and might be a way forward for acupuncture research in other parts of the country.

Group members/acupuncturists were Barbara Scott Alexander, Dwara Young, Fiona Bolden, Hugh Tripp, Jane Robinson, Jenny Dallas, Joseph Mo, Kim Maidment, Nick Johnson, Rosemary Norton, Russ Chapman, Sally Blades, and Stephanie Horton.

## References

- i) Paterson, Charlotte. 1996. 'Measuring outcomes in primary care: a patient generated measure, MYMOP, compared with the SF-36 health survey'. *British Medical Journal*, 312: 1016-20.
- ii) Paterson, Charlotte. 2000. 'In pursuit of patient-centred outcomes: a qualitative evaluation of the 'Measure Yourself Medical Outcome Profile''. *Journal of Health Services Research and Policy*, Vol. 5 No 1: 27-36.
- iii) Paterson, Charlotte. 1999. 'Like your bubble feels good: concepts of well-being'. Acupuncture Research Resource Centre Conference Paper.
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tant question still to be addressed in this area.

The error that we made was not fully piloting the question concerning medication, a problem that became obvious when trying to analyse the change in medication, and to which medication. This question has been improved and is an ongoing development of the project. We were able to note that reducing medication is important to patients. 18.90% of patients rated it 'A bit important' while 41.24% rated it 'Very important'. This was more significant than some of the acupuncturists in the group had realised.

For the four month follow up, 66%

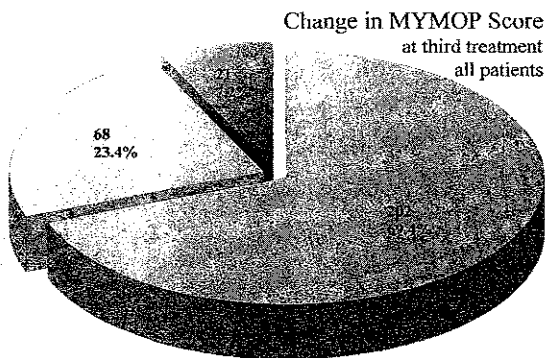
of patients replied. This was good for a postal questionnaire (15% to 30% is an average reply rate). Apart from forgetfulness, we wondered if the non responders showed a difference in improvement and that perhaps they did not reply if they did less well. Sending further follow ups was considered too intrusive, so we compared the change in MYMOP scores at the first and third visit for those who responded at four months and for those who did not. The trend for improvement was similar for both.

The MYMOP questionnaire was easy and quick to use in the clinic. MYMOP has also been shown to have significant correlation when compared with another

well being questionnaire SF 36 (Ref. i).

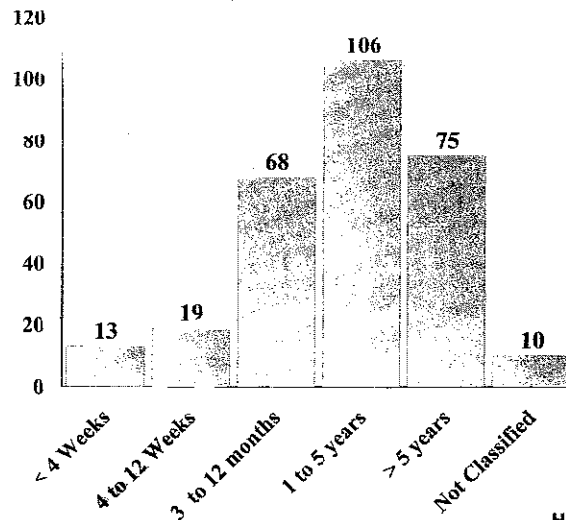
The first questionnaire was filled in with the practitioner present who explained the practicalities and discussed consent, except in the pain clinic where the receptionist did this. In order to reduce the practitioner influencing any outcome it was stressed to the patient that it was their own words and their own personal score. The four month follow up was by post and returned to Warwick House (the base for the study) rather than to individual acupuncturists to further reduce any practitioner influence.

The results show that most people showed an improvement at their third

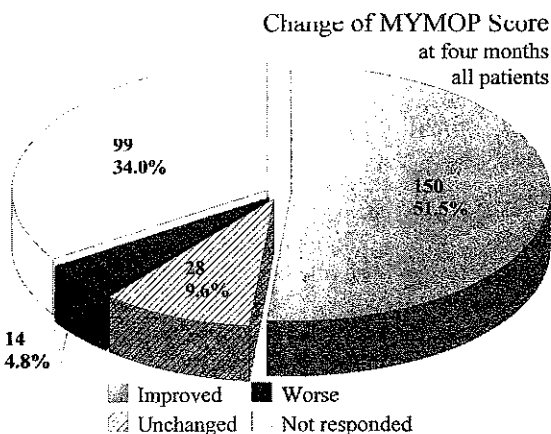


Pie chart 3 Improved Unchanged Worse

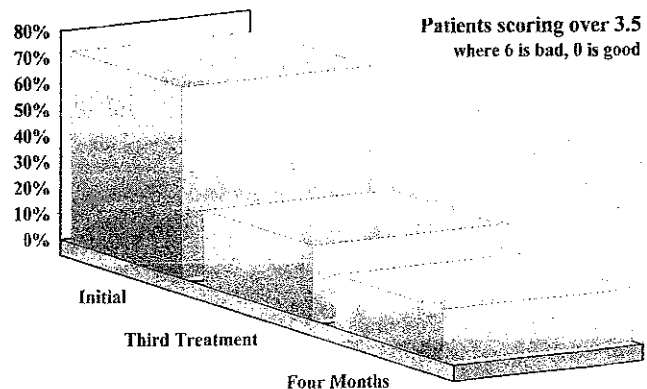
Patient distribution by length of complaint



Histogram 3



Pie chart 4

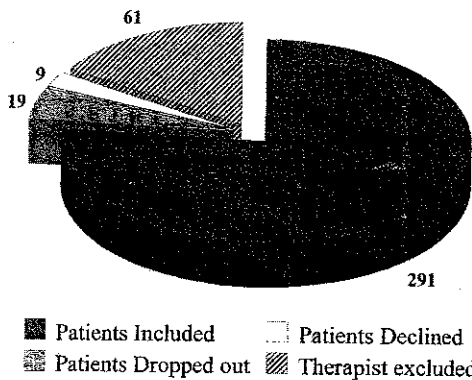


Histogram 5

Total Patients : 291		The higher the worse the symptoms		Negative change = improvement								
Code	Problem Categories (ICPC Codes)	Number of Patients	% of patients in category	Male	Female	Mean Age	Mean Initial MYMOP Score	(SD)	Mean Change at Treatment t 3 (SD)	Mean Change at 4 Months (SD)		
1	Musculoskeletal	112	38.49%	35	75	51.7	4.0	1.0	-1.14	1.19	-1.73	1.46
2	Respiratory	18	6.19%	7	10	44.2	3.9	1.1	-1.18	1.07	-1.42	1.60
3	Psychological	35	12.03%	9	26	46.0	4.1	1.1	-1.36	1.12	-1.59	0.91
4	Skin	9	3.09%	2	7	33.4	3.5	0.6	-1.10	0.63	-1.44	1.17
5	Digestive	18	6.19%	5	13	48.9	4.2	1.3	-1.60	1.11	-2.04	1.37
6	Ear	6	2.06%	3	3	51.8	3.2	0.6	-0.46	0.88	-1.43	0.55
7	Eye	3	1.03%	2	1	46.3	4.0	0.9	-1.17	1.56	-2.25	0.00
8	Circulatory	5	1.72%	3	2	51.4	4.3	1.3	-1.54	1.32	-1.58	0.42
9	Neurological	40	13.75%	10	30	45.4	4.1	0.9	-1.38	1.31	-1.65	1.41
10	Urinary	4	1.37%	1	3	52.0	4.3	0.6	-1.81	1.04	-1.13	0.63
11	Female genital	5	1.72%	0	5	41.4	3.3	1.2	-1.36	1.19	-1.59	1.46
12	Male genital	0	0.00%									
13	Blood forming	0	0.00%									
14	General	32	11.00%	4	28	45.0	4.4	0.9	-1.23	0.95	-2.09	1.53
15	Metabolic	1	0.34%	0	1	44.0	5.6	0.0	-5.35	0.00	-3.60	0.00
16	Social problem	0	0.00%									
17	Pregnancy	3	1.03%	0	3	39.3	3.1	1.4	-1.07	0.61	-1.25	1.75

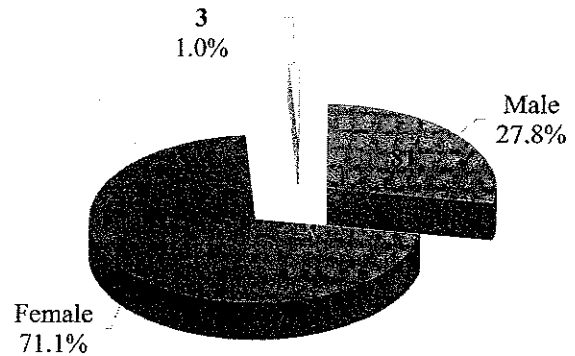
Table 1

Breakdown of all new patients seen  
Total: 380



Pie chart 1

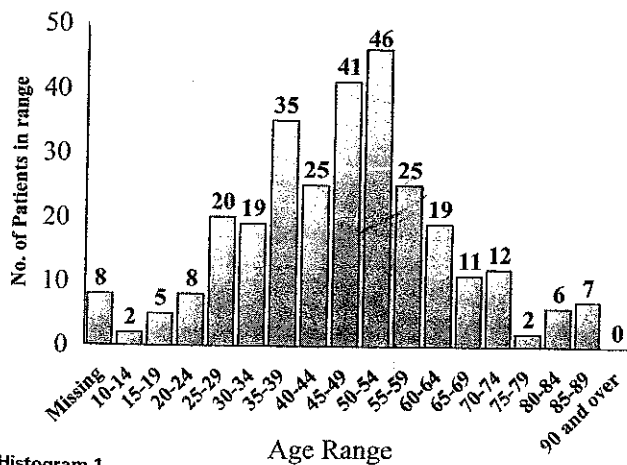
Not Recorded



Patient breakdown by sex  
Total: 291

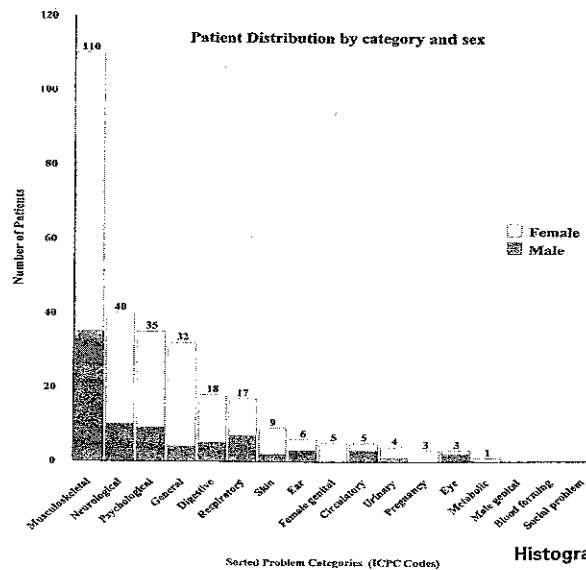
Pie chart 2

Age Distribution of Patients Participating in Study



Histogram 1

Patient Distribution by category and sex



Histogram 2

nature such as cluster migraines or dysmenorrhoea, where the problem needed to be viewed over a much longer time scale.

### General Patient Profile (See Table 01)

The group recruited 291 patients (See Pie 01) over the twelve months, from September 1998 to September 1999. Of these, 207 (71.13%) were female, 81 (27.84%) male (See Pie 02). The age range was from 13 to 88 years (mean of 47.9 and a mode of 52); this age range reflects the national distribution (See Histogram 01).

Patient complaints were categorised according to their first chosen symptom using the International Classification of Primary Care (ICPC) Codes as shown (See Histogram 02). There was a range of complaints though musculoskeletal was the main category with 112 (38.49%) of patients.

The duration of the patients complaint was also classified into one of the following categories:

- Less than 4 Weeks
- 4 to 12 Weeks
- 3 to 12 months
- 1 to 5 years
- More than 5 years

Again, although there was a full range of results, it was clear that chronic conditions predominated with 106 (36.43%) of patients in the 1 to 5 years class and 75 (25.77%) in the more than 5 years class (See Histogram 03).

When comparing chronic against acute we took all patients in the classes 1 to 5 years and more than 5 years to be chronic. All others were taken to be acute. Those not classified were excluded from the comparison.

### Results

As previously mentioned, the 13 acupuncturists who collected data in the first year were asked to include all their new patients and patients returning after a gap of more than three months. Of the 380 eligible patients, 291 are included in this report and 61 were excluded by therapists for various reasons outlined below. Nine patients declined to take

part in the study and 19 dropped out, i.e. did not attend three times.

The main reasons for excluding patients from the study were as follows:

1. Lack of patient ability to complete the form or give informed consent. This category was mainly the very young or old, though some patients did have language difficulties.
2. Inappropriate condition. These were patients who had no symptoms or intermittent symptoms, e.g. Hay Fever sufferers before the Hay Fever season, or cluster migraines.
3. Infertility, as this was more suited to a two point scale.
4. The therapist forgot to ask or did not have a supply of forms at the time of first treatment. Patients not wishing to take part were a very small proportion and in the main indicated it was a dislike of forms that led them to decline.

Of the 291 patients included here, 192 returned the four month follow up forms. At 66% this is a very good response rate.

Each patient has one MYMOP score, the average of their scores for their symptom(s), activity and well-being. Thus, the scores shown here reflect all of these aspects and can range from 0 (As good as can be) to 6 (As bad as can be).

Work with MYMOP and other 7 point measures suggests the minimal clinically significant difference is between 0.5 and 1.0, i.e. changes of this order are likely to represent something meaningful to the patient.

The initial scores range from 1 to 6 with a mode of 4, the most populated range is 4.00 to 4.49 with 55 patients (18.90%). At the third visit the scores range from 0 to 5.75 with a mode of 3, and a most populated range of 3 to 3.49 with 52 patients (18.25%). These changes exceed 0.5 and should represent a meaningful improvement to the patients taking part. At four months the trend continues to show further improvement. The range of scores is unchanged but the mode is now 2 and the most populated range is 2 to 2.49 with 35 patients (18.62%). There was a good response

rate, with only 99 patients (34.0%) failing to respond to the postal questionnaire (See Histogram 06).

Another way of looking at the change reported is to consider where the bulk of the scores lie. Initially 74% of patients have a MYMOP score greater than 3.5; by the third treatment the number of patients scoring over 3.5 have reduced from 74% to 29%, showing that most patients were reporting an improvement. This continued on to the four month score where only 20% of patients are scoring over 3.5 (See Histogram 05).

### Conclusions

Using a recognised tool in the MYMOP questionnaire was a good way to gather data which was useful in establishing a database of patient response while having a course of acupuncture. While there was no attempt to control what other therapies (if any) that patients used, the high percentage of patients reporting an improvement in their condition, coupled with the great preponderance of chronic conditions, suggests that acupuncture does have a considerable therapeutic effect.

Ideally, this project will be continued in some form, to broaden the range of complaints registered and increase general depth of data. In order to extend the availability and reliability of current and future data there is a need for database design and data handling protocol.

Given the preponderance of chronic patients, there could well be scope to run a similar exercise using such patients as their own control group. This would need further design work but would, if possible, avoid the problems of 'sham' acupuncture and the ethical issue of denying patients potentially beneficial treatment.

### Discussion

This study is a description of how patients see their symptoms while they are having acupuncture. It does not make any attempt to control other therapies used by the patients involved. We did, however, attempt to look at any interaction that might occur with other medication. This proved difficult to measure in practice and we felt there was an impor-