Clinical outcome research at the University of Westminster Polyclinic.

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ONE OF the difficulties in evaluating the effectiveness of naturopathic treatment lies in identifying the most appropriate research method to use. The conventional model of the double blind randomised trial, for example, is difficult to conduct within a patient-centred, holistic, therapeutic approach such as naturopathy.

Klaus (2000) argues that double blind randomised trials are appropriate where, for example, extensive knowledge of the action of a drug, is already known before trialling on humans. He recommends that the “evaluation should not focus on fastidious experimental research, but on critical and systematic observation of everyday practice”

Patient outcome measures have been used increasingly in conventional and complementary therapies. By assessing the patient’s perception of any changes in health during treatment – “Am I better or worse since the treatment?” – the focus is on the patient’s assessment after treatment.

Thompson and Reilly used patient outcome measures successfully in a study to evaluate the impact of complementary therapies treatment (reflexology and homeopathy) on symptom control in cancer patients.

MYMOP
The Measure Yourself Medical Outcome Profile (MYMOP) is a simple questionnaire, designed by Dr C. Paterson, for measuring clinical outcomes assessed by the patients. It is a patient generated health status questionnaire that is symptom specific, but also considers the whole person by including the monitoring of a daily activity, and general wellbeing.

Since validation in 1996, MYMOP has been used successfully for evaluating patient outcomes for both allopathic and complementary therapy treatment. MYMOP was adopted by the University of Westminster to assess patient outcomes in the teaching clinic.

Challenging cases
The University of Westminster Polyclinic is the largest subsidised multidisciplinary complementary therapies clinic in the UK offering 14 different therapies. The clinic in which naturopathy, osteopathy and craniosacral therapy are used opened in 2000.
This clinic has attracted a wide range of patients and is fairly representative of private practice. In addition, because of its location within the public sector offering reduced fee treatment in central London, the clinic receives referrals from GPs and other organisations attracting challenging cases of mental and physical pathology. It is ideally suited to participate in an ongoing audit investigating the efficacy of complementary therapies using MYMOP.

The MYMOP form designed by Dr C Paterson was modified in the teaching clinic to facilitate easier use by students. Instead of using a visual analogue scale, ratings were recorded as numbers directly on the form and an additional space was added to record any life-affecting events, but otherwise the method remains the same.

The patient selects one or two related symptoms that they consider important (would like to improve), and an activity that is affected by the symptom(s); these are then rated on a Likert scale of: 6 for the worst possible score – e.g. very severe back pain, to 0 being best possible score – e.g. absence of back pain. A rating for overall ‘Well being’ is also collected using the same scale. Modified MYMOP forms (mMYMOP) are completed at each consultation ensuring that any clinical changes are monitored. A reduction in scores indicates an improvement in the patient’s rating of their own health, whereas any increase in scores indicates an adverse change. The patient consistently knew their ratings for their previous consultation before rating any current symptom changes.

Data collection
mMYMOP data collection started in June 2001, and is ongoing, for all patients. Data are collected for the full course of treatment. The naturopathy, osteopathy and craniosacral therapy clinic runs on two days each week, in which the experienced practitioner assesses and treats the patient. Students observe within each consultation. A range of conditions were treated: neck, shoulder, and back problems, headaches, joint problems, emotional, and functional problems (e.g. depression, lack of focus), autism and hyperactivity (see Charts 3.1 and 3.2).

Consultations were normally scheduled at 4-6 weeks for chronic conditions, but were seen earlier if the practitioner considered it appropriate. The mMYMOP was administered at the beginning of each consultation. mMYMOP results were recorded by the practitioner, and entered into a computer database by a technician.

Data from a three-year period were analysed retrospectively and provided the basis for this pilot study. Data were used for all patients who had been treated in the clinic and who fulfilled the inclusion criteria (minimum attendance of two consultations), irrespective of length of treatment, outcome, or symptom.

Results

1. Analysis of the differences in scores between first consultation and latest consultation.

mMYMOP scores for the first consultation (before any treatment) and the latest consultation were collected. Initially, values for the differences in scores between the first consultation and the latest consultation were calculated by subtracting the latest score from the first consultation score for the presenting (first) symptom for each patient (see Graph 1).

This provided an indicator of any changes that may have occurred during treatment, and the direction of change. A negative score indicated a worsening of the symptom; a positive score indicated an improvement in the symptom as perceived by the patient.

Differences could potentially range from +6, when a patient rated their symptom to have originally measured the worst possible score (6), and on their latest consultation it had resolved (0), to -5, where a symptom had registered as being minor, and was aggravated by the treatment to “as bad as it could possibly be”. (A symptom was unlikely to start with a score of 0).

Analysis over a three-year period showed that out of 49 patients, 57.14 per cent (n=28) rated an improvement in their
first symptom (see Graph 1) and 34.69 per cent rated an improvement in their overall wellbeing score.

A more reliable measure of overall change in patient symptoms was calculated by averaging the patients’ scores for their symptoms, the activities affected by the symptoms, and overall well-being (see Graph 2). Patients who had omitted to rate related activities were excluded from the data sample, reducing the sample size to 46.
The averaged results showed that the improvement in patients’ health scores was highly significant at the p<0.001 (n=46). These results were highly unlikely to have happened by chance, the probability being less than 1 in 1000. Identical high levels of significance were repeated when analysing all the data by using a matched pairs T test.
Before treatment 37 per cent of the sample (n=46) rated their symptoms as 3 or less. After treatment 78.3 per cent of patients rated their symptoms as 3 or less, demonstrating a decrease in scores and severity for the same symptoms.
The results demonstrate that patients attending the clinic perceive that their health improved, and that it is very unlikely (probability of less than 1 in 1000) that the improvement could have occurred by chance alone.

3) The Profile of Symptoms
Symptoms were divided into two categories of physical, and mental/emotional. Fifty-seven per cent of patients who received treatment presented with physical symptoms, and 43 per cent presented with mental/emotional symptoms. See charts 3.1 and 3.2 for the distribution and range of symptoms treated.

Discussion
This was the first attempt to analyse mMYMOP data from the University of Westminster clinic. The study had a dual purpose: 1. To investigate the efficacy of treatment in the clinic 2. To provide an opportunity to identify potential improvements in data collection.
mMYMOP was found to be simple, quick and easy to administer. However mMYMOP needs to be evaluated as a suitable tool to measure outcomes. A reliable measure can be obtained by averaging the severity of patients’ symptoms, with their associated affected activities, and overall well being. This provides a robust subjective measure for assessing changes in patient outcomes (see Graph 2 and Table 2). The mMYMOP forms used have space to record changes in circumstances that are likely to affect patient outcomes e.g. bereavement.
Larger sample sizes should limit the affect of external factors on data analysis.
It is important not to lose sight of the longer term beneficial effects of treatment. mMYMOP can measure changes in the patient’s health at a given time. It would also be useful to measure any changes in health after a longer period of time.
A longitudinal (follow up) survey of patients is planned for the future.

<table>
<thead>
<tr>
<th></th>
<th>Average Before</th>
<th>Average After</th>
</tr>
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<tbody>
<tr>
<td>Median</td>
<td>3.67</td>
<td>2.50</td>
</tr>
<tr>
<td>Mode</td>
<td>4.00</td>
<td>2.67</td>
</tr>
<tr>
<td>Mean</td>
<td>3.44</td>
<td>2.47</td>
</tr>
<tr>
<td>No. of patients</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 (above) shows the changes in Means, Medians and Modes for Combined Averaged Patient Data.

<table>
<thead>
<tr>
<th></th>
<th>No. of patients</th>
<th>No of patients with Improvement in Scores</th>
<th>% Patients scoring improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (presenting) symptom</td>
<td>49</td>
<td>28</td>
<td>57.14</td>
</tr>
<tr>
<td>Overall well-being</td>
<td>49</td>
<td>17</td>
<td>34.69</td>
</tr>
</tbody>
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Table 1 Differences between mMYMOP scores for first symptom and wellbeing
What about the other 26 per cent patients who did not improve? This is the challenge of audit. mMYMOP scores were taken at the latest consultation, and some patients would not have completed their treatment. The consultations were held in a teaching clinic with students observing the treatment. The presence of students can impact on the therapist’s ability to maintain complete attention on the patient and this may therefore have an effect on the treatment outcome. Scores were not available for those patients who discontinued treatment. Did their symptoms resolve, or did they opt out for different reasons? In future, patients who do not return will be asked to complete a mMYMOP form by post. Analysis of time intervals between consultations would be useful. It seems probable from the results, that the type of presenting symptom dictates the timescale of treatment. Further examination of the patients’ cases should inform future practice.

While it is unreasonable to expect 100 per cent patients to improve, particularly with maintaining causes, there is always room for improvement.

Conclusions
The analysis proves conclusively that patients treated in the clinic felt that their symptoms improved. Patients scored significant improvements in their health irrespective of the classification of their presenting symptom. The mMYMOP was swift and easy to administer, and it has demonstrated usefulness as a tool for measuring patients’ treatment outcomes. The data showed 73.9 per cent patients experienced an improvement in their symptoms. An average of all the information gathered for each patient (symptom, related activity, and wellbeing), and for each component part (presenting symptom, and wellbeing) showed highly significant improvements at \( p<0.001 \) level.

The report on complementary and alternative medicine by the House of Lords Select Committee on Science and Technology recommends that research into complementary medicine should be undertaken to establish an evidence base. This article is submitted to encourage other naturopaths in practice to consider introducing the use of patient outcome measures into their practice.

References

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