

Patients' views of receiving lessons in the Alexander Technique and an exercise prescription for managing back pain in the ATEAM trial

Lucy Yardley^{a,*}, Laura Dennison^a, Rebecca Coker^a, Frances Webley^b, Karen Middleton^b, Jane Barnett^b, Angela Beattie^c, Maggie Evans^c, Peter Smith^d and Paul Little^b

^aCentre for Applications of Health Psychology, School of Psychology and ^bPrimary Care Group, Community Clinical Sciences Division, University of Southampton, Southampton. ^cAcademic Unit of Primary Health Care, Department of Community Based Medicine, University of Bristol and ^dDepartment of Social Statistics, University of Southampton, Southampton, UK.

*Correspondence to Lucy Yardley, School of Psychology, University of Southampton, Highfield, Southampton SO17 1BJ, UK; E-mail: l.yardley@soton.ac.uk

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Background. Lessons in the Alexander Technique and exercise prescription proved effective for managing low back pain in primary care in a clinical trial.

Objectives. To understand trial participants' expectations and experiences of the Alexander Technique and exercise prescription.

Methods. A questionnaire assessing attitudes to the intervention, based on the Theory of Planned Behaviour, was completed at baseline and 3-month follow-up by 183 people assigned to lessons in the Alexander Technique and 176 people assigned to exercise prescription. Semi-structured interviews to assess the beliefs contributing to attitudes to the intervention were carried out at baseline with 14 people assigned to the lessons in the Alexander Technique and 16 to exercise prescription, and at follow-up with 15 members of the baseline sample.

Results. Questionnaire responses indicated that attitudes to both interventions were positive at baseline but became more positive at follow-up only in those assigned to lessons in the Alexander Technique. Thematic analysis of the interviews suggested that at follow-up many patients who had learned the Alexander Technique felt they could manage back pain better. Whereas many obstacles to exercising were reported, few barriers to learning the Alexander Technique were described, since it 'made sense', could be practiced while carrying out everyday activities or relaxing, and the teachers provided personal advice and support.

Conclusion. Using the Alexander Technique was viewed as effective by most patients. Acceptability may have been superior to exercise because of a convincing rationale and social support and a better perceived fit with the patient's particular symptoms and lifestyle.

Keywords. Attitude, complementary therapies, exercise, low back pain, patient acceptance of health care, qualitative research.

Introduction

In a recent clinical trial of management of back pain in primary care (the 'ATEAM trial'¹), a series of lessons in the Alexander Technique resulted in substantial reductions in pain, maintained for one year. The Alexander Technique is a self-care approach that facilitates the recognition and understanding of harmful habits of muscle use and enables people to avoid them. Teachers employ specialized hand contact, integrated with verbal explanation, to help individuals learn to attend to head poise and lengthening of the spine, in a way that facilitates normal postural tone, balance and

coordination. In the ATEAM trial, the Alexander Technique was compared with a GP prescription of exercise followed up by behavioural counselling from a nurse. The exercise prescription resulted in significant but smaller reductions in pain, while the combination of a series of six Alexander Technique lessons followed by the exercise prescription was nearly as effective as 24 Alexander Technique lessons alone.

Qualitative and quantitative process studies of patients' experiences of interventions can offer valuable insights into why these may or may not be effective.² It is known that psychosocial factors influence the outcome of management for back pain; for example,

variability in the effectiveness of interventions that require patients to undertake physical activity may be partly due to poor adherence.³⁻⁵ The questionnaire survey and qualitative study presented here were nested within the ATEAM trial in order to evaluate patients' beliefs and experiences that may have influenced motivation, adherence and hence trial outcomes.

The analysis below focuses principally on the Alexander Technique, as this proved the most effective, and we are aware of no previous research on patients' views of this method of managing their back pain. For comparison, we examined patients' views of the exercise intervention, which has parallels with being taught the Alexander Technique since both interventions required patients to actively engage in self-management of their back problem. As a theoretical framework for evaluating patients' views of the interventions, we employed the Theory of Planned Behaviour (TPB),⁶ which has been used successfully to identify and assess the beliefs and attitudes predicting health behaviours,⁷ including adherence to exercise-based rehabilitation programmes.⁸ In a mixed methods design, we used a questionnaire to assess the key elements of the TPB in a large sample and interviews to gain a more detailed understanding of the beliefs and experiences that shaped patients' attitudes and intentions.

Methods

The trial within which these studies were nested was carried out between 2002 and 2004 in the South and West of England; full details are reported elsewhere.¹

Questionnaire study

The items in the TPB questionnaire were constructed by standardized methods,⁷ using two 7-point scales to measure each of the key elements of the TPB. For each intervention, respondents indicated: how helpful/harmful and useful/useless it would be (attitude); whether people important to them would think that it would be helpful/useful (subjective norm); how easy/difficult and simple/hard it would be (perceived behavioural control) and how likely/unlikely they were to carry out the intervention (intention). Baseline alpha coefficients for subscales assessing each construct ranged from 0.89 to 0.93.

The TPB questionnaire was administered by post at baseline and 3-month follow-up together with other measures used in the trial. It was completed at both time-points by 183 people assigned to lessons in the Alexander Technique (63.5% of the trial sample) and 176 people assigned to exercise prescription (61.5% of the trial sample). Characteristics of respondents and non-respondents did not differ significantly (see Table 1), using independent *t*-tests for continuous variables and chi-square tests for dichotomous variables.

There was a very skewed distribution of responses on the TPB scales that could not be corrected by transformation, and so we dichotomized the scores into those scoring ≤ 12 versus > 12 (attitude, subjective norm and intention) and ≤ 10 versus > 10 (perceived behavioural control). To examine change on these scales between baseline and 3-month follow-up, we used the McNemar *Q*-test.

Interview study

We purposively recruited patients from each intervention arm by phone, including men and women of varying ages and levels of initial pain; none refused to be interviewed. The analyses presented here are of interviews with 24 people, 14 of whom had been assigned to lessons in the Alexander Technique and 16 to exercise prescription (6 participants had been assigned to both interventions). These comprised 11 men and 13 women, with an age range of 31–61 years, and baseline Roland–Morris scores⁹ ranging from 4 to 21. Baseline interviews were completed before the participants started the intervention. Follow-up interviews were completed 3 months later with 15 members of the baseline sample (nine had received Alexander Technique lessons and nine had done exercise); one patient interviewed at baseline declined to be re-interviewed, and eight could not be contacted or were unavailable for interview within the timeframe available.

The interview schedule was designed to elicit beliefs relating to each construct in the TPB (see Box 1). Interviews lasting 20–60 minutes were carried out by non-clinical interviewers in participants' homes and were tape-recorded and transcribed verbatim.

A thematic analysis¹⁰ was carried out by two of the authors, using both deductive and inductive approaches

TABLE 1 Baseline characteristics of trial participants who did and did not complete the TPB questionnaire

	Alexander Technique lessons		Exercise prescription	
	Respondents	Non-respondents	Respondents	Non-respondents
Number of men (% of sample)	61 (33.3)	116 (29.3)	52 (29.5)	125 (31.0)
Number of women (%)	122 (66.7)	280 (70.7)	124 (70.5)	278 (69.0)
Mean age (SD)	46.08 (10.48)	45.22 (10.58)	46.27 (9.40)	45.15 (11.00)
Mean Roland-Morris score (SD)	10.84 (5.20)	10.99 (4.98)	10.69 (4.88)	11.05 (5.12)

Box 1 *Baseline interview schedule*

Questions to elicit behavioural beliefs

Do you have any ideas about (intervention)?

Prompts: have you done anything similar before?

Can you tell me about it?

How do you feel about doing (intervention)?

Prompts: what do you think will be the good things about doing (intervention)?

What do you think might be the bad things about doing (intervention)?

Questions to elicit normative beliefs

What have you heard about (intervention) from other people?

Prompts: family, friends, health care professionals, media.

What do you think about what you have heard?

Does this affect how you feel about doing the (intervention)? In what ways?

How do your friends and family feel about the (intervention)?

Prompts: do they think it's a good thing or a bad thing?

Do their opinions of the (intervention) affect the way you see the (intervention)?

Questions to elicit control beliefs

How easy do you think it will be to fit the (intervention) into your daily life?

Prompts: do you think you may have any problems carrying out (intervention)?

Do you think there are any ways you might overcome these problems?

What things do you think might help you to carry out (intervention)?

Note: at follow-up the same questions were slightly rephrased to ask about their experiences of the intervention.

to develop the codes. All relevant text was categorized into expectations and experiences of the intervention, and initial broad themes were identified inductively. From these themes, a set of more detailed codes was developed and applied, based on the TPB, which proposes that 'behavioural beliefs' about positive and negative consequences of the behaviour contribute to attitudes, 'normative beliefs' about others' views contribute to subjective norms and 'control beliefs' about what makes the behaviour easy or difficult to carry out contribute to perceived behavioural control.⁶ The second coder verified the coded data and identified illustrative quotes.

Results

Quantitative changes in attitudes and intentions

In both intervention arms, initial attitudes and intentions were favourable; >40% of the sample gave at least one top rating of seven, indicating that they considered that the intervention would be 'extremely helpful' and that they were 'extremely likely' to carry it out (see Table 2).

TABLE 2 *TPB ratings at baseline and 3-month follow-up in patients randomized to exercise prescription and lessons in the Alexander Technique*

TPB construct	Baseline (%)	3 months (%)	Chi-square	P
Exercise prescription				
Attitude	76 (43.2)	77 (43.8)	0.00	1.00
Subjective norm	75 (42.6)	73 (41.5)	0.02	0.90
Perceived behavioural control	89 (50.6)	87 (49.4)	0.02	0.90
Intention	76 (43.2)	61 (34.7)	2.93	0.09
Alexander Technique lessons				
Attitude	90 (49.2)	120 (65.6)	13.57	0.000 ^a
Subjective norm	89 (48.6)	89 (48.6)	0.00	1.00
Perceived behavioural control	95 (51.9)	108 (59.0)	1.87	0.17
Intention	101 (55.2)	85 (46.4)	3.21	0.07

Number (and percentage) of patients scoring >12 out of a maximum score of 14 (attitude, subjective norm and intention) or >10 of 14 (perceived behavioural control).

^aSignificant after Bonferroni correction for eight comparisons.

Perceived behavioural control scores were lower; around half the sample indicated that it would be 'quite' or 'extremely' easy to carry out the intervention.

At 3-month follow-up, there was very little change in attitudes and perceived behavioural control in the exercise arm. Intentions to carry out exercise were slightly but not significantly lower. Attitudes to the Alexander Technique became significantly more positive, although paradoxically intentions to carry it out were slightly lower. The questionnaire responses were therefore examined separately in those randomized to 6 and 24 Alexander Technique lessons (Table 3). Positive attitudes to the Alexander Technique increased most in those randomized to 24 lessons, whereas intentions to carry it out dropped in those who had completed their lessons.

Expectations described at baseline interviews

Most themes were common to some people in each of the interventions (see Box 2). In terms of behavioural beliefs, before starting the intervention, most patients had cautiously positive expectations. Few hoped for a complete cure but many were desperate to attain some degree of pain relief. Patients also sought insight into how to prevent or manage episodes of back pain better:

I don't think it will cure the pain but I think it will, hopefully, help to ease it. That's what I'm hoping for. And at least make me, I'm hoping that, you know, if I'm doing things wrong it will correct it. (Participant 0401, ATX6 and EP)

Since the interventions offered were seen by most patients as unlikely to cause harm, they were seen as

TABLE 3 *TPB ratings at baseline and 3-month follow-up in patients randomized to 6 or 24 lessons in the Alexander Technique*

TPB construct	Baseline (%)	3 months (%)	Chi-square	P
Alexander Technique (6 lessons)				
Attitude	48 (50.5)	61 (64.2)	4.36	0.04
Subjective norm	47 (49.5)	42 (44.2)	0.46	0.50
Perceived behavioural control	49 (51.6)	49 (51.6)	0.00	1.00
Intention	53 (55.8)	35 (36.8)	7.61	0.006 ^a
Alexander Technique (24 lessons)				
Attitude	42 (47.7)	59 (67.0)	8.82	0.003 ^a
Subjective norm	42 (47.7)	47 (53.4)	0.52	0.47
Perceived behavioural control	46 (52.3)	59 (67.0)	4.65	0.03
Intention	48 (54.5)	50 (56.8)	0.03	0.86

Number (and percentage) of patients scoring >12 out of a maximum score of 14 (attitude, subjective norm and intention) or >10 of 14 (perceived behavioural control).

^aSignificant after Bonferroni correction for eight comparisons.

worth trying even when expectations for benefit were not great:

I've got nothing to lose and hopefully a bit to gain so, yeah, I mean both my daughters turned round and said it's a good thing and I thought well I'll give it a try. So if it does help, in any way, even if it helps 25% that's still 25% better so that's the way I'm going to look at it. Anything is a bit of a bonus really. (Participant 0101, ATX6)

An important factor was the opportunity to try something new since previous attempts to relieve back pain had generally proven unsuccessful:

It must be something different than what I've had ... —I'm hoping it's going to help more because it's something different. (Participant 0207, ATX6)

Previous experience of exercise had resulted in some scepticism. Although some people welcomed support to try it again, others reported past problems with exercise and wanted reassurance that the type of exercise prescribed would not make the pain worse:

I was doing the exercises—the wrong ones. Not the 'Mind Your Back' ones, the ones more keep fit, kind of. I hurt my back even more then. I mean it was one of those days when perhaps I should have taken it easier than I did. So it is worth doing those exercises that are designed for people with my problems. (Participant 0304, EP)

In contrast, using the Alexander Technique was typically seen as a gentle and appropriate way of relieving strain on the back:

I went for like an assessment with somebody locally where they sort of explained that the Alexander technique was to do with moving in a better way, you know, holding your body in a better way and possibly sort of improving posture and getting up and sitting down and not sort of putting a strain on different parts of your body. And it did all sound, it did all seem to make sense. (Participant 0202, ATX24)

Before starting the intervention, the main anticipated problem with completing the intervention (i.e. control belief) was concern that it could be difficult to fit into their lifestyle, but most patients expressed determination to find a way to do so. With regard to normative beliefs, the views of family, friends and even professionals were described as mainly positive, but not necessarily reliable or influential:

Anything, anything, yes, do it! Shut up and do it and stop moaning! ... No, they encourage me to do anything. (Participant 0107, EP)

I wouldn't be swayed by anybody else because what I have learnt is what works for somebody doesn't work for somebody else... So you've just got to try it I think. (Participant 0401, ATX6)

Experiences described at follow-up interviews

At 3-month follow-up, many patients, especially those who had learned the Alexander Technique, reported varying levels of pain reduction. Some people described immediate and striking easing of back pain after carrying out the technique. However, due to the fluctuating nature of symptoms it was sometimes difficult to be certain of whether and why pain was getting better or worse. Many people therefore described a process of coming to conclude that it could prevent or partially relieve pain (behavioural beliefs):

I generally feel better after doing it. I have had very little back trouble recently which I think must be due in part to the Alexander technique. (Participant 0103, ATX24)

I would say it was pretty much approaching half way [through the course] before I was convinced it was doing any good. (Participant 0202, ATX24)

With regard to control beliefs, many obstacles to exercising were reported, including lack of free time or suitable opportunities, bad weather, cost and lack of social support. Some enjoyable experiences of exercise were reported, but exercise was often viewed as unpleasant or difficult to keep up:

I have tried all sorts of things. I have tried striding on my way to work, but I carry a case so that is not very good for my back. Also I get very hot

Box 2 *Themes identified from the interviews carried out at baseline and 3-month follow-up*

Pre-intervention expectations

Expected outcomes of doing intervention (behavioural beliefs)

Opportunity to try something positive, hopeful or desperate for improvement, nothing to lose since not harmful

Partial or total pain relief—generally modest expectations

Other benefits e.g. resume normal activities, relax/loosen muscles, reduce medication, weight loss (exercise)

Improve coping/prevention for the future—learn better posture/movement (Alexander Technique lessons), build strength in back

Increase pain temporarily or aggravate back condition

Expected attitudes of others (normative beliefs)

Others believe the intervention is worth trying, could be beneficial—mainly family and friends

Expected ability to carry out recommended activities (control beliefs)

Might be difficult to find time or opportunities

Time required not great, flexible lifestyle provides opportunities, determined to find time

Post-intervention experiences

Outcomes experienced

Partial or total pain relief (mainly Alexander Technique lessons)

Other benefits, especially reduced tension in muscles/back (mainly Alexander Technique lessons)

Improved coping/prevention for the future (mainly Alexander Technique lessons)

Increased pain—temporary or persistent

Doubts about intervention effectiveness, appropriateness

Experienced attitudes of others

Family and friends generally supportive or neutral

Experiences of ability to carry out recommended activities

Difficult to find time or opportunities (mainly exercise prescription)

Was able/determined to find time

The Alexander Technique is difficult to master—requires extended time, expert supervision

Note: if a theme was found mainly or solely in one intervention group this is noted in brackets.

and feel sweaty and that is not a good way to start the day. (Participant 0204, EP)

[Interviewer: How easy has it been to fit the prescription exercise into your daily life?] ... A nightmare! There is a crèche at the gym but that is £3.75 an hour and ... by the time my husband gets home in the evening, there isn't any time to get to the gym. (Participant 0206, ATX24 and EP)

Many fewer barriers to learning the Alexander Technique were described. Although it was not always possible to find somewhere to lie down undisturbed, many of the techniques could be practised while carrying out normal activities:

Often in the day if I am in the office just sitting in the chair and I sit back, and I stretch my back and my neck muscles, which you can quite easily do once you know the technique. (Participant 0101, ATX6)

Additional aspects of the Alexander Technique valued by patients (behavioural beliefs) included the hands-on care, emotional support and detailed advice provided by the teacher and the opportunity to relax and take time for oneself:

I must admit I was apprehensive, I didn't know what I was going into. But once she started to talk to me, explained—even then it didn't make sense. But once she started to work on me, and then after the second one, which I kind of knew what I was going into, everything just seemed to click together and it all made sense of what she was telling me, of what I should be doing ... Half an hour, no dogs, no kids, no nothing, on my own. I put some music on, I have some nice chill out moods, and I put that on. I just lay there for half an hour and concentrate getting my whole body into alignment. (Participant 1006, ATX6 and EP)

Part of what is nice about it, is that when you go to your Alexander teacher you have got 30 or 40 minutes, or however long a session is of time where they are totally focused on you. My teacher L, L is really, really lovely so she will always say 'How has your week gone?' (Participant 0202, ATX24)

Many people felt that learning the Alexander Technique had improved their ability to prevent back pain in the future. However, many also said that learning it was initially difficult and could not be accomplished quickly or without a teacher:

I think unless you have been to classes and had a teacher it is hard really to get an understanding. I did read books about it, one was given to me by the Alexander teacher. But the books wouldn't mean much to somebody who wasn't having lessons with a teacher. (Participant 0103, ATX24)

Their experiences of extensive advice contrasted with those in the exercise intervention group, who received much less individualized instruction and support. A few patients commented on this:

You have to make the appointment to go and see the GP for him to do the prescription exercise. I thought he would go through the do's and don'ts. What to start off with, what to work up to, how often, blah, blah, that sort of thing ... I was in there and out within 3 minutes, he just sat and read the sheet of paper and that was it. He sent me away

to work it out for myself. (Participant 0206, ATX24 and EP)

Although many patients receiving just six lessons of Alexander Technique felt that there was much more they could learn that might be beneficial, few considered that they could justify the cost of paying privately for further lessons.

Discussion

Summary of main findings and comparison with existing literature

The questionnaire data confirmed that, before the intervention, patients' attitudes were highly positive in both intervention arms. The interviews revealed that the behavioural beliefs influencing these attitudes were based on modest expectations for improvement; patients welcomed the chance to try something new that might bring partial pain relief at least and felt that they had little to lose since the interventions were seen as relatively low risk. However, some people wanted reassurance that the type of exercise prescribed would be suitable for back pain, especially if they had previous bad experiences with exercise.

Questionnaire responses following the intervention showed that patients' attitudes to exercise did not change significantly, whereas the attitudes of those learning the Alexander Technique became more positive. The behavioural beliefs elicited in the follow-up interviews revealed that many patients who had had Alexander Technique lessons reported varying levels of pain reduction and also felt that they had improved their ability to cope with and prevent back pain in the future. Other aspects of learning the Alexander Technique that patients valued were that the teachers provided personal attention and support, the detailed explanations and advice they gave 'made sense' and the technique could be practiced while carrying out everyday activities or relaxing. Teacher's support was clearly important to patients since intentions to carry out the Alexander Technique were less strong at 3-month follow-up in those receiving only six lessons than those receiving 24 lessons, and in the interviews, many patients noted that learning the technique was initially difficult and required the help of a teacher.

The features of learning the Alexander Technique that patients described as positive are similar to those valued by patients in studies of other interventions for back pain. Patients often express a desire for more information about their condition, and more detailed explanation and advice is generally associated with higher levels of satisfaction.^{11–13} Characteristics of effective treatment programmes also include tailoring the format to the individual's needs and providing supervision and support.^{14,15} Previous qualitative research has also revealed that some patients feel that

GPs have a limited understanding of and interest in back pain, whereas complementary therapists may offer a plausible explanation of the causes and management of their problem.^{13,16,17} However, as in our study, previously reported barriers to using complementary therapy for back pain include concerns about the cost of therapy.¹⁸

Interviews with patients following the exercise prescription suggested that their attitudes at follow-up might have been less positive because fewer noticed improvement in pain. There were also more reports of unpleasant experiences and difficulty finding suitable opportunities to exercise; these findings are consistent with qualitative studies reporting that barriers to undertaking other exercise-based treatments include lack of time and motivation to persist with exercising.^{16,19}

Strengths and limitations of the study

A limitation of this study is that positive views of the interventions are likely to be over-represented for a number of reasons. Dropout from the interview study at follow-up meant that the views of those who agreed to be interviewed might not represent the full range of views of trial participants; those who could not be contacted at follow-up might have been less positive about the intervention than those who were re-interviewed. The views described in the interviews were broadly consistent with the pattern of reported attitudes measured by the survey, which were obtained from a larger and more representative sample of trial participants. Nevertheless, over a third of trial participants failed to complete the questionnaires on both occasions, and these may also have been the less motivated participants, since this questionnaire formed pages 20–21 of a 27-page booklet. It is also likely that the trial participants themselves were more positively disposed towards the interventions than those back pain patients who did not volunteer to take part in the trial, which is the probably explanation for the marked skew at baseline towards positive attitudes and intentions.

Using the TPB as a framework for structuring the data collection and analysis enabled us to obtain useful and compatible insights into patients' views from qualitative and quantitative data. However, this partly deductive approach may have restricted the topics that were discussed in the interview and constrained the scope of the analysis by focussing on the features of patients' accounts that were relevant to the TPB constructs.

Implications for clinical practice

By clarifying the perceptions of the Alexander Technique that contributed to positive attitudes, it is possible to infer characteristics that may be important ingredients of effective interventions for back pain. First, patients are likely to have more positive expectations and better adherence if they are offered a rationale that convincingly explains their current symptoms

and how this intervention will relieve them (despite the failure of previous attempts at management). Since patients adopt an 'experimental' attitude to trying new methods of managing back pain and then evaluating their effects,²⁰ they are more likely to then persist and achieve a good outcome if they can perceive benefit, in terms of reduction or prevention of pain. However, since improvement in chronic conditions is often gradual and variable, it is necessary to maintain motivation to adhere meantime by providing personal support, adapting the intervention to fit into the patient's lifestyle, avoiding provoking unacceptable levels of pain and trying to ensure that the intervention is intrinsically pleasant. These suggestions for improving the outcomes of treatment of back pain are not unique¹⁵ but have yet to be incorporated routinely into primary care management of back pain (including the exercise intervention in our own trial). By doing so, it may be possible to increase the effectiveness of interventions and reduce the variability in outcomes. For exercise prescription, this might have the potential to convert what the trial found was a modestly effective but very cost-effective intervention into a significantly more effective and extremely cost-effective intervention.

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