Lay versus professional motivation for asthma treatment: a cross-sectional, qualitative study in a single Glasgow general practice

Karen Steven, Jill Morrison and Neil Drummond

Objective. Our aim was to identify the factors which motivate patient self-management in asthma and to compare the results with the factors which appear to have motivated the content of the British Thoracic Society (BTS) clinical guidelines for chronic asthma in adults.

Method. We conducted a cross-sectional, qualitative survey of asthma patients from a single general practice list in Glasgow, Scotland. Twenty-three adult asthma patients on at least step 2 of the BTS guidelines were selected from the practice asthma register.

Results. Only seven of the 23 subjects had asthma treatment goals. People with asthma are motivated by the effect of the illness on self-image, the experience of symptoms, the value of life experiences affected, the perceived consequences of asthma, their acceptance of the diagnosis and their attitude towards medication. Asthma is largely viewed as unproblematic.

Conclusions. The BTS guidelines appear to be motivated by a desire to heighten professional awareness about the disease. Patient goals and preferences for asthma treatment are largely unrecognized by the guidelines. A concordant model of disease management, involving the explicit acknowledgement of patient goals by professionals, alongside their own goals for treatment, may improve adherence to treatment perceived by patients as relevant and achievable.

Keywords. Asthma, goals, guidelines, motivation, patient-centred care.

Introduction

The British Thoracic Society (BTS) asthma guidelines were devised to raise professional awareness of the unnecessary mortality and morbidity caused by asthma. Two of the influences which motivated the production of the first BTS asthma guidelines were a confidential enquiry of asthma deaths and an editorial in Thorax. The former concluded that a considerable proportion of asthma deaths may be preventable. The latter stated that “the major problem in asthma today is the education of the profession about the disease”.

The guidelines recommend that people with asthma should take sufficient medication to achieve ‘control’. Control is defined as minimal (ideally no) chronic symptoms, infrequent exacerbations, minimal need for relieving bronchodilators, no limitations on activities (including exercise), circadian variation in peak expiratory flow of <20%, peak expiratory flow >80% of predicted or best and minimal (or no) adverse effects from medicine. The guidelines advise a stepwise increase in the dose of anti-inflammatory medication such as inhaled steroids because they treat the underlying disease process in asthma. Short-acting bronchodilators relieve acute symptoms but do not treat airways inflammation.

Factors which motivate adults with asthma regarding the care of chronic symptoms have been described. Drummond, for example, found that the perceived impact of asthma on everyday experiences was related to the perceived value of those experiences. Several studies have looked specifically at patients’ perceptions of treatment. Adams and colleagues found that people with asthma may reject prophylactic medication because they do not accept that they have asthma. Hewett found that people with asthma evaluate their medicine according to its perceived benefits.

The existing literature on patient motivation in asthma and the fact that non-compliance with asthma medication
Lay versus professional motivation for asthma treatment

is common\textsuperscript{8} led us to hypothesize that people with asthma and the BTS guidelines may have different goals of treatment. A goal was defined as “that which one wants to accomplish; it concerns a valued end state”.\textsuperscript{9}

This paper describes the goals of treatment and the factors motivating self-management behaviour of people with asthma. In the discussion, the findings are compared with the goals and factors which appear to have motivated the authors of the guidelines in determining their content. It is particularly important for GPs and other primary care professionals who use guidelines in the day to day management of disease to understand the patients’ perspective of treatment goals and their motivation to adopt or reject behavioural change.

Data collection and analysis were based on the intention of developing a theory which would explain the relationship and interactions between goals, motivation and behaviour. The method used to achieve this was to ground the theory in evidence which derived, a priori, in the perceptions and experiences of patients, rather than those of health professionals.\textsuperscript{10}

**Method**

Subjects for study were selected from the patient lists of one general practice of 6000 patients, living mainly in owner-occupied accommodation in the suburbs of Glasgow, Scotland.

Asthma patients aged 20–47 years, diagnosed for at least 2 years, on steps 2–4 of the BTS guidelines and with no significant co-morbidity, were identified from the practice’s computerized diagnostic register and by individual case record search. People whose asthma had been diagnosed for <2 years were excluded, on the assumption that time is required to form condition-related goals. Only those on steps 2–4 of the BTS guidelines were included, in order to standardize for disease severity.

**Data collection**

People were interviewed in depth in their homes or a place of their choosing by a single interviewer (KS) for 30–90 min. Two chose to be interviewed in the general practice surgery. The interviews were based on a topic guide (see Appendix) devised by the three authors, with reference to the literature on goal setting and revised according to the emerging themes in three pilot interviews. All interviews were tape-recorded and transcribed verbatim.

**Analysis**

The analysis used the ‘Framework’ method,\textsuperscript{11} i.e. the three authors read the transcripts to identify the key themes. They were ‘asthma goals’ and ‘life goals’. They coded four of the transcripts for these themes and compared their analysis. Any differences were resolved by negotiation. Four more transcripts were coded by all three authors, the analysis compared and the differences resolved by negotiation. Then the agreed coding system was applied to all the transcripts by KS. The data for each respondent and each code were then arranged in a table. Two other themes emerged from this analysis: ‘motivation’ and ‘behaviour’. The transcripts were coded for these themes using the same process as described above.

Working hypotheses about the relationships between goals, motivation and behaviour were then generated and the data explored for disconfirming cases (i.e. cases which did not fit the emerging theory). These hypotheses were revised and reapplied to the data until all disconfirming cases were accounted for. The resulting conceptual model is outlined in the discussion.

**Results**

Thirty-eight women and 35 men were identified as eligible to take part in the study. Seven men and 13 women were aged between 20 and 29 years, 17 men and 18 women were aged between 30 and 39 years, and 11 men and seven women were aged between 40 and 49 years. Of these, three were interviewed in a pilot study and 30 were selected on the basis of age and gender and invited to participate in the main study. Twenty-three agreed to do so and subsequently were interviewed. Table 1 describes the achieved sample. The average duration of asthma was 17 years (range 2–45). Four respondents reported that they were current smokers. Based on Standard Occupational Social Class,\textsuperscript{12} six respondents were from social class I, five from social class II, eight from social class III non-manual, two from social class III manual and two from social class IV.

**Patients’ asthma goals**

Of the 23 people who were interviewed, only seven identified goals which related to their asthma. Such asthma goals as were described could be categorized as concerning either ‘cure’ or ‘control’.

‘Cure’ was defined as having no symptoms and no perceived need for medication:

\[\ldots\text{ doing without the Ventolin. And once I’ve done that, if I can take the Becotide in the morning and not bother with it at night that’s another step forward. Then maybe in months to come if I can maybe just take one skoosh, like a slow process forward until I haven’t got it at all }\ldots\text{ I will keep trying, I will do without that Ventolin. And once I can, once I’ve proved that I can do it then maybe I’ll go on to do without the Becotide.}\]

\[\text{“And why is it that you like to take sort of less and less, if you can }\ldots?\text{”}\]

\[\text{“Because obviously I’m getting cured.” (Respondent 8, 32-year-old man)}\]
‘Control’ was expressed in terms of the management of symptoms and the management of inhalers. For example:

“When you are looking after your asthma what are your main aims?”

“Well if the peak flow is not very high my main aim is to increase my dosage . . . I don’t think it matters really how many puffs you take as long as [it goes] up to about 450 again.” (Respondent 20, 36-year-old woman)

Influences on motivation
Respondents identified several factors which influenced their motivation to undertake behavioural change in relation to their asthma and its management.

(i) The effect of asthma on self-image. Two respondents were motivated to ‘fight back’ against asthma because they perceived that the illness had a negative impact on their self-image:

“I try not to see myself as having (asthma) because . . . then I see it as almost like a fault . . . I mean I’ve managed to go and do a couple of classes like the aerobics and that and not use my inhaler. I feel maybe a bit short of breath after it. But I feel I can manage, I’ve completed something without needing anybody’s or anything, any help in any way and I like that. So as long as I can keep it in the mind that I’m trying to improve myself, even if I don’t improve, and not just sitting back and letting it happen makes me feel better about it.” (Respondent 16, 24-year-old woman)

“He’ll [husband] say ‘you’re wheezing away there’. I’ve heard him say ‘. . . away and take your inhaler’, and I’ll say ‘I’m fine!’ It’s maybe a bit of I don’t like something controlling me like that and having to rely on medicine.” (Respondent 1, 29-year-old woman)

Alternatively, asthma can become normalized to such an extent that its effects are not noticed and there is no motivation to change.

“I’ve never really been affected by it badly and I don’t look upon it as an illness, it’s just part of me.” (Respondent 4, 47-year-old man)
(ii) The experience of symptoms. Chronic asthma symptoms are commonly described as mild and not particularly burdensome. Language such as ‘only’ or ‘a wee bit’ or ‘slight’ is used to signify this:

“I just was getting a slight wheeze at times, at night really.” (Respondent 13, 38-year-old man)

However, two respondents were motivated to treat their asthma because of the unpleasantness of their symptoms, without reference to activity or the degree of value attributed to it. For example:

“Well as I say if I don’t take these inhalers, it’s very wearying . . . very unpleasant I mean I just can’t . . . I’m just sitting sneezing all the time, my eyes are heavy. It grinds you down quite a bit, you know.” (Respondent 12, 40-year-old man)

(iii) The value of the life-experience affected. Three respondents were motivated to change their behaviour because asthma affected a valued activity. For example, respondent 22 consulted his GP about asthma only when it began to limit his ability to smoke cannabis. If asthma has no effect on activities of value, or has an effect only on activities to which the patient attaches little or no value, no motivation to adopt a behavioural change is reported. For example, respondent 7 had managed to reduce his nocturnal symptoms in order to be able to work but was not motivated to abolish his symptoms completely because they did not interfere significantly with his life:

“Do you have any aims for your asthma treatment?”

“As long as it doesn’t interfere in my life, wheezing that much, certainly the lack of sleep is a definite drawback, especially as I get older. I can’t really cope as well with work over extended periods of lack of sleep.”

“Apart from continuing to sleep through the night is there anything else that’s important for your asthma treatment?”

“To be able to sustain exercise, I mean certainly it’s difficult to play with the children sometimes if they want to play hard for half an hour, you know I can’t keep up with them any more. That’s not so much of a problem, it probably will be as they get older, I won’t be able to take part as much because I run out of breath. But it’s really not part of a particular goal I have to address that. As long as the asthma is under control and I can sleep properly, it doesn’t interfere with the exercise that I do take.” (Respondent 7, 39-year-old man)

(iv) The perceived consequences of asthma. Only seven respondents were motivated by a desire to prevent the serious consequences of asthma. They were influenced by various factors. One respondent was influenced by more than one factor. Four of the seven seem influenced by the medical model. For example:

“When I first went to asthma clinic that’s maybe when I never realised it was that bad. I mean I just thought that’s just the way I was but [the asthma nurse] said you [your peak flow] should be 575 or something like that and you think heck I’m half of that you know . . . will this mean something for later on.” (Respondent 20, 36-year-old woman)

It is not clear how another respondent heard about asthma deaths:

“If you are going on holiday, it’s the first thing I think of because if something does happen when I’m away and I don’t have the tablets I wouldn’t know what to do and I think it can make you worry about, well I don’t know what can happen with asthma but you hear of all these people dying and you think well how does that happen so, I always tend to think oh I need to make sure I’ve got my tablets with me.” (Respondent 10, 36-year-old woman)

Three respondents feel at risk of the severe consequences of asthma because they have had previous experience of severe asthma. For example:

“I’ve got brittle asthma. I go from the way you see me just now, I’ve seen myself sitting here, 8 o’clock at night and starting to wheeze a bit, at 11 o’clock at night I’m lying in hospital. My asthma just seems to go downhill very fast . . . The things [inhalers] that I’m on permanent are the only things that are keeping me alive at the moment so you learn to live with these things.” (Respondent 9, 42-year-old man)

Believing that asthma will not have serious consequences may reduce the motivation to control symptoms. If asthma is not considered to have serious consequences, the decision to control asthma is more likely to be based on current symptom experience.

“I would like to stop using them [inhalers] altogether but you know, again, that’s just because I don’t really want to be taking drugs for any length of time because I don’t feel I need them. And at some times in the past, not maybe in the last couple of years, previously I could do without any inhaler at all for like three or four months without too much difficulty. And you know break a habit. And then you would have a wee flare up and get back into the habit . . . It’s [asthma’s] something that I am troubled by very occasionally and until that one flare up. I tend to regard that as a special one off event because I know what triggered that, because I believe I know what triggered that, other than that, it was totally controllable and it doesn’t figure in my thinking.” (Respondent 14, 35-year-old man)
(v) Denial of the diagnosis. One respondent rejected the diagnosis of asthma and was motivated to avoid using medication because the latter was judged to represent the disease.

“If I can go without the ventolin then I don’t need this ventolin any more, I’m not asthmatic.” (Respondent 8, 32-year-old man)

Discussion

The under-representation of lower social classes in the sample limits the generalizability of the study. Compliance with medication was considered as a sampling criterion but was rejected because it is difficult to measure and is common. Non-compliance (defined as an average daily intake of \( \leq 50\% \) of the prescribed amount) is reported in \( \sim 30\% \) of asthma patients in general practice.8 Therefore, it is likely that respondents who are generally compliant and generally not compliant with treatment regimes will be found even in a small sample. The interviewer’s identity as a GP may have had some effect on the interview process. For example, Richards and Emslie found that medical matters were discussed more frequently with a GP interviewer than with a sociologist, if their respective professional backgrounds were acknowledged.13

People with asthma seem to be motivated mainly by a series of complex inter-relationships between their personal experiences of the disease and their perception of its consequences,14–18 their attitudes towards medication,6,7 and the values they ascribe to everyday experiences, activities and behaviours, and the impact, or lack of it, which they perceive asthma having on those behaviours.5 People are not motivated by asthma morbidity per se because they become accustomed to and adjust their expectations in the context of chronic symptoms.5,19 These findings are broadly in line with the ‘expectancy-value theory of achievement motivation’,20 which holds that behavioural change is a function of motive, the subjectively perceived probability of achieving a certain outcome and the value of the incentive to do so.

For most patients, asthma treatment goals are not a dominant theme because the day to day experience of asthma is reported as being largely unproblematic. People infrequently describe damage to their self-image, very negative experiences of symptoms or significant limitation of valued activity.

These findings are important as a first attempt to understand patients’ asthma goals. In so doing, the study raises important issues with respect to the development and the application of clinical guidelines. It is generally recommended that ‘scientifically valid guidelines’ should be based on the best available scientific evidence or, if absent, the best clinical judgement.21 In the light of this study, the development of the BTS guidelines and their practicality in the primary care setting may be considered limited because of lack of patient representation in deciding the content of the guidelines. As a result, that content embodies perceptions and valuations of ‘healthiness’ which derive from a professional, biomedically idealistic point of view, which is at odds with the more pragmatic, socially influenced perspective of patients. It is not being suggested that health professionals are slavish in their current use of the BTS guidelines. However, our findings suggest that the useful application of these guidelines (in terms of improving health outcomes that are of value to patients) may be limited if professionals fail to take full account of individual patient preferences for both the content of the treatment and its intended outcomes.22

More recently, there has been a movement towards partnership between health professionals and patients.23 The Royal Pharmaceutical Society, for example, suggests that “the clinical encounter is concerned with two sets of contrasted but equally cogent beliefs—that of the patient and that of the doctor”.24 In order to come to a therapeutic alliance, they suggest that both sets of beliefs should be regarded as valid. This alliance in treatment goal setting is known as concordance.24 It consists of a negotiation and shared perception between practitioners and patients in relation to which treatment goals are important and worth attempting to achieve. The costs to the patient of attempting these goals, in terms of physical, psychological, emotional and financial effort, must not be perceived (by the individual concerned) to outweigh the benefits. Practitioners must accept that patients are not interested in achieving what they regard as unrealistic treatment goals or behavioural changes to which they attach no value. The result of this negotiation may be a management plan for the patient which seeks to achieve less, in terms of individual health gain, than the practitioner believes is either possible or necessary. An important cost for the practitioner and the health service is the requirement for more time to be spent listening to what the patient wants to achieve with respect to his or her treatment, before embarking on a management plan. The justification for this, in the absence of any formal studies of the effectiveness of a concordance model of therapeutic management, is largely philosophical: professionals and patients should learn from each other’s perspectives in order to achieve mutually agreed health outcomes. However, it is arguable that professionals are in a position to learn more from patients than the other way round, and have much to gain from doing so, in terms of overall improvements in patient adherence to what they judge to be ‘relevant’ therapeutic regimes.

Acknowledgements

The authors thank Ms Michere Beaumont for transcribing the interviews and Drs Ron Neville and Rose Barbour for helping to criticize the manuscript. The data were
collected when KS was a Higher Professional Training Fellow funded by the Scottish Council for Postgraduate Medical and Dental Education in the Department of General Practice of the University of Glasgow. The work was funded by the Chief Scientist Office of the Scottish Office Department of Health but the views expressed here are those of the authors alone.

**References**


13. Richards H, Emslie C. The ‘doctor’ or the ‘girl from the University’? Considering the influence of professional roles on qualitative interviewing. Fam Pract 2000; 17: 71–75.


**Appendix**

**Topic guide**

**General**

Age

Occupation

Household

Smoking status

Age of onset

**Management**

Describe effect of asthma on life

How bad is it now compared to usual, compared to best ever?

Describe any trigger factors

Any friends or family with asthma?

Current asthma treatment

Do they have to alter their treatment at all?

Do they have a self-management plan?

Do they use it?

**Goals**

Describe their goals in life

Does asthma affect their goals at all?

Describe their priorities in life

How does asthma fit into their priorities?

Describe the most recent event that they had to plan ahead for

Did they have to alter their asthma treatment at all?

In what way?

How did that work out?

Do they have any events coming up that they have to plan for?

How do they intend to do that?

Describe their overall aim of asthma treatment, if any

Any short-term aims?

How important is it to them to achieve their aims?

Describe any barriers to achieving their aim

How difficult would it be to achieve their aim?

Do they break down their aim?

Are their any changes they would like to make to their asthma treatment?

Anything they can’t do?

**Self-efficacy**

Confidence in management of asthma

How do they compare with others?

Anything that has happened to increase or decrease confidence?

**Contact with primary care**

Is the asthma nurse/doctor aware of their aims?

Why not?/How and when did they tell them?