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# Barriers to effective asthma care in inner city general practice

Colin Bradley, Amjid Riaz

**Objectives:** The aim of this study was to identify, using a qualitative approach, factors acting as barriers to the delivery of optimal asthma care in inner city general practice. A secondary aim was to use this information in devising interventions to try and overcome some of the barriers.

**Methods:** Semi-structured interviews were carried out with general practitioners working in inner city locations in Birmingham UK. The interviews were recorded, transcribed and analysed using the techniques of thematic content analysis.

**Results:** 14 GPs took part. Most were males and non fundholding. Nearly half were over 50 years old and single handed. The ethnicity of the practice populations varied greatly. Numerous factors obstructed these GPs: high consultation rates, lack of resources/support, deprivation, illiteracy, poor compliance, low morale, lack of time/skills to identify and appraise literature. Some of this information has been used to devise interventions.

**Conclusions:** This study has highlighted some of the barriers to the provision of effective asthma care in inner city locations of Birmingham (UK). It is clear that merely distributing asthma guidelines to practices will not yield the desired reductions in morbidity and mortality until these barriers are addressed. This study has lead to the development of interventions to try and overcome some of these barriers. The interventions devised are being evaluated in two ongoing studies.

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**Keywords:** asthma, barriers to care, implementation of guidelines

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## Introduction

Wide variations in the management of asthma have been observed both in the primary and secondary care settings.<sup>1,2</sup> Guidelines have been developed locally and nationally to try and reduce this variation in clinical practice and assist in the application of standardised, high quality medical care.<sup>3,4</sup> Studies carried out after each release of the British Thoracic Society guidelines<sup>3,4</sup> have suggested that these guidelines were, in general, not being adhered to.<sup>2,5,6</sup> Theories have been put forward to explain the relative failure of guidelines to change the behaviour of health care professionals.<sup>1,7-9</sup> The quantitative studies that have lead to these theories have been useful in drawing attention to the size of the problem and in quantifying its significance in statistical terms. However, to define what prevents physicians from delivering the highest quality of care, the techniques of a qualitative approach can be used to explore the deeper issues.

The aim of this study was to identify, using a qualitative approach, factors acting as barriers to the delivery of optimal asthma care in inner city general practice. A secondary aim was to use this information in devising interventions to try and overcome some of the barriers.

## Methods

A purposive sample of 25 practitioners working in inner city locations in Birmingham (UK) was identified on a geographical basis. These GPs were invited, by telephone, to take part in the study. Each practitioner was then visited by AR and a semi-structured interview was conducted. Interviews were conducted in 1996. The interview aimed to elucidate some of the problems experienced by these practitioners in their efforts to deliver effective asthma care. Practices also supplied demographic data.

The narrative data was transcribed and analysed using the technique of 'Thematic Content Analysis'.<sup>10</sup> This involved initially going through the transcripts to identify the major themes emerging. The text was then processed again, attaching text blocks to the themes. All statements relevant to each theme were then considered together and the themes modified accordingly. As a validation of these major themes a subset of the transcripts, selected at random, were analysed separately by an independent reviewer.

## Results

Fourteen GPs agreed to take part in this study, a response rate of 56%. The most common reason stated by the 'non

**Table 1.** Factors acting to obstruct/enable inner city GPs in their efforts to deliver optimal asthma care.

Variables	Obstructing factors	Enabling factors
Doctor	Low morale Large list sizes Lack of time/protected time Lack of training/support in the use of literature	Interest/priority Personal Nurse interest Relative with asthma Doctor/nurse speak the same language as the patient Find management of asthmatics satisfying
Practice	High consultation rates High work load: Time Increasing number of asthmatics Other pressures Drug budgets Poor payment for asthma clinics Resources: Space Equipment	Dedicated asthma clinics Active patient education programme Group practice Security Computers
Patients	Deprivation Housing Pollution Unemployment Poor use of preventative services Level of education/literacy Lifestyles e.g. smoking Compliance	Doctor understands patients language/culture Patients often teach the rest of their family

responders' for not taking part was lack of time. Non responders were similar to those who took part in terms of practice location, list size, partnership size, gender, and ethnicity of practice population. Most of the inner city locations in Birmingham (UK) were represented.

#### *The doctors and their practices*

Eleven of the GPs interviewed were male; six were over the age of 50. Half of the GPs were single handed and a further six belonged to two-partner practices. Nine of these practitioners were non fundholders. The ethnic breakdown of the practice populations varied greatly, as estimated by the practitioners, from virtually 100% Caucasian to virtually 100% non-Caucasian.

All but one doctor had an asthma disease register; the number of asthmatics estimated to be on these registers per practice varied between 50 and 630. One practitioner worked without a practice nurse. Eight practices ran dedicated asthma clinics, patients in the remaining practices had asthma reviews during routine consultations.

#### *Barriers identified*

Numerous barriers to better asthma care were identified as well as some enabling factors (table 1). Illustrative narrative data are provided.

#### ● Patient-specific barriers

Many problems specific to the environment of these pa-

tients acted as barriers to optimal asthma care. Most of the doctors cited the high degree of deprivation and its associations: poverty, damp, dilapidated housing, pollution, unemployment. Patient lifestyles were also mentioned as contributing, such as smoking including parental, passive and when pregnant. The level of education, literacy and difficulties with communication in general also acted as barriers:

*'It is a big challenge for any GP working in the deprived areas. There are not many educated people here, high unemployment and high smoking rates. They are all factors.'*

There seemed to be a poor take-up of preventative services and attendance for asthma review mainly with each exacerbation. Compliance with medication was frequently cited as a major barrier to better asthma care:

*'Compliance is a big problem for us. We try to convince the parents that they (the asthmatic children) have to keep taking the inhalers regularly but when they are better they stop them again. Then they turn up with a severe attack again.'*

*'I've tried letters, I've told them in consultations, in some cases we even ring them at home but attendance is still very poor.'*

#### ● Practice-specific barriers

Almost all of the GPs described the very high consultation rates:

*'I see...70-80 patients in the morning. Even in the evening*

some 60-65 patients...'

These were combined with other pressures: time, increasing numbers of asthmatics, shifting of care from secondary to primary setting, drug budgets:

*'The problem is really time. We should give them more time and see them more often. We haven't got the appointments.'*

Practitioners described a lack of resources such as space, equipment, staff and poor payment for asthma clinic services:

*'Over the last three years my surgery has been burgled over 12 times. We have had to change the computer system four times.'*

*'...this room and the one next to it are the only two rooms I can use in this health centre...'*

#### Doctor-specific barriers

The doctors spoke of the fact that dealing with the above problems left little 'protected' time for continuing medical education and in particular little time to read peer-reviewed journals. The increasing volume of 'guidance' in different formats, from different sources (each with its own objectives), as well as inconsistencies in the information received contributed to the confusion and acted as a disincentive for several of the practitioners. All of these factors played a role in the low morale described by some of the doctors:

*'Since I started, the workload in general practice has increased by a fantastic amount and it has increased with things like asthma. It has reached the stage where I don't think it can be tolerated anymore.'*

#### Enabling factors

Some of the GPs described factors that enabled them in their efforts to deliver more effective asthma care. Many of the doctors were able to speak some of the languages spoken by their ethnic minority patients (though this did not always remove the communication barrier). A specific interest or satisfaction in managing asthma enabled some of these GPs to push past some of the barriers. An asthma-interested nurse seemed to have the same effect:

*'...nurse who is very interested in asthma. It has motivated us all.'*

Those with computer-based disease registers and dedicated asthma clinics also described these as enabling factors. GPs in group practices tended to describe more enabling factors.

#### Interventions designed

Some of the barriers described by these GPs have been used in designing interventions for two further studies. Both of these studies are aimed at evaluating the effect of eliminating some of these barriers.

Lack of time/training to appraise literature and an overwhelming workload were identified by these GPs as two key barriers. An intervention study was designed in which clinical research fellows are working

to facilitate guideline implementation from within inner city practices. As well as studying the implementation of clinical guidelines, these additional doctors will be able to provide some help with the workload and offer an immediately available source of information and advice on clinical management. These doctors, through academic links, will be able to search for and appraise information for the GPs. This study aims to evaluate the effect of removing such barriers as lack of time/training to search and appraise literature, coping with high consultation rates, lack of staff. This large study is currently still in progress and both qualitative and quantitative data are being collected to determine the effectiveness of this strategy in increasing the uptake of clinical guidelines on various diseases including asthma, hypertension, angina and epilepsy.

Some of the barriers are being used to tackle the problems using another type of intervention. The GPs mentioned that because of high workload and difficulties with searching/appraising and accessing literature they felt unable to bring research information into the consultations. As a result of identifying these barriers a second intervention has been planned. This intervention involves the development and evaluation of a computer decision support system for the primary care management of chronic asthma. This system has been developed to take into account the pressures in these surgeries and eliminate barriers surrounding literature access, development and maintenance of disease registers, facilitating management in asthma clinics and delivering guidelines and research-based information into the consultation. The development phase has been completed and after piloting the software a randomised controlled trial will be conducted in primary care to ascertain if this technology encourages adherence to guidelines and improves patient outcomes.

#### Discussion

As with most qualitative work, the 'power' of the study is in the comments of participants and relies less on the number of participants. Thus a purposive sample rather than a random sample was better placed to yield the type of information we needed to design interventions to overcome the barriers. The findings of this study represent the views of 14 volunteer GPs and may not be generalisable to all GPs. It is notable that those GPs who were not able to take part in this study have also 'contributed' by highlighting one of the most important barriers - the lack of time available to many practitioners in these areas.

The implementation of guidelines and transfer of research findings into clinical practice have proved to be two of the major stumbling blocks in the recent efforts to standardise clinical practice and base it on sound research evidence.<sup>1,8,11</sup> Many workers have highlighted some of the potential barriers to changing the behaviour of health care professionals and the implementation of guidelines.<sup>1,7-9</sup> These barriers include: information mismanagement, clinical uncertainty,

perceptions of liability, patient expectations, financial disincentives, administrative constraints and time constraints.<sup>7</sup> Some of the difficulties in the management of information that act as barriers have been reported as being poor presentation of research findings, lack of time to search for information, dispersion or scatter of relevant literature across a large number of journals and difficulties in interpreting published evidence.<sup>1</sup> The findings in this study are in agreement with this published literature and contribute to it by including specific additional barriers acting in inner city locations.

The barriers identified by this qualitative study are just some of the factors contributing to the poor uptake of guidelines and research-based information in these inner city practices. Clearly none of these barriers acts in isolation. Removing some of these barriers may be difficult. Problems surrounding deprivation may need major public health initiatives, other barriers can be tackled at a health authority or practice level. Information barriers can be addressed by providing GPs with concise, appraised, up-to-date information. The uptake and implementation of this guidance may be enhanced by, perhaps, including with each piece of information appropriate (primary care-based, previously studied) intervention strategies. This process can be seen to be akin to the now widely agreed principle of considering the dissemination and implementation phases at the very early stages of guideline development.<sup>1,8,11</sup>

The use of computer decision support software to provide appraised information (for use during the consultation) packaged with the implementation strategy itself may be one feasible method of bridging the research-practice gap. Other barriers such as lack of practice infrastructure may be overcome by providing increased resources. One model for the delivery of these increased resources which has not been tested before is the 'attachment' to practices of doctors with academic links for relatively short periods. These attachments may serve to intermittently 'enthuse' and 'revitalise' practices as well as providing relief from the workload and time to organise and implement changes to improve patient care. These two interventions have been derived by directly working with the data supplied by practitioners in this study. It is not known whether the removal of these barriers will enhance the uptake of guidelines and encourage the delivery of optimal asthma care. It is hoped that the results of these two ongoing studies will shed further light on this. ■

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