

## Research

# 'Slightly more serious than a cold': Do patients, nurses and GPs take type 2 diabetes seriously?

**Sharon Saint Lamont**, Centre for Health Services Research, University of Newcastle upon Tyne, Newcastle upon Tyne, UK, **David L. Whitford**, Newcastle upon Tyne, UK, **Ann Crosland**, Centre for Primary and Community Care Learning, University of Northumbria, Newcastle upon Tyne, UK

What people know and how people feel about type 2 diabetes will affect demand for early identification of the disease at an asymptomatic stage. This paper reports on the selected findings from a broader study of the attitudes and perceptions of GPs, nurses and patients about screening for type 2 diabetes. Purposive sampling was used to identify several practices across north-east England, and data were collected via semi-structured interviews with GPs, nurses and patients from these practices. Interview transcripts were analysed by drawing on the principles of grounded theory, with the aid of NUD\*IST software. This paper focuses upon the perceived seriousness of this condition, and the implications such perceptions may have in practice. Results indicate a marked variation in perceptions of seriousness between health practitioners and patients. This diversity can be explored via three overlapping frameworks identified during the study: medical, political and personal. A medical framework suggests that individuals' perceptions are guided by a medical model. This links the seriousness of type 2 diabetes with concepts of prevention and cure, a need for individual lifestyle change, bias towards younger patients and anticipated use of medication. In short, diabetes is perceived to be more serious as it becomes more medicalized. A political framework views seriousness in terms of national incentives and priorities, a recognized need for a centralized push for early detection and financial inducements. Diabetes detection is not generally thought to be attractive politically compared with systematic cancer screening. A personal framework suggests that perceptions of seriousness are determined by individual attitudes, knowledge and experiences of diabetes. The findings offer important insights into how perceptions of the seriousness of type 2 diabetes may influence detection and management of this disease in primary care.

**Key words:** doctor, patient relationships; perceptions about type 2 diabetes; seriousness of type 2 diabetes

## Introduction

There is growing support for early detection of type 2 diabetes (Diabetes UK, 2001). Indeed, the

last 25 years has witnessed increasing demands on general practitioners to carry out screening (Li and Logan, 1996). However, the lack (at the time of this study) of any national priorities, guidelines and identifiable resources has meant that screening in primary care has remained somewhat arbitrary, and there appears to be a wide variation in practice and little effective evaluation (Robson, 1998). This is

---

Address for correspondence: Dr Sharon Saint Lamont, Centre for Health Services Research, University of Newcastle, 21 Claremont Place, Newcastle upon Tyne, UK.

©Arnold 2002

10.1191/1463423602pc094oa

despite the current literature that suggests diabetes prevalence in the UK in 2025 will increase by 19%, from 2.1% to 2.5%. This will mean an increase in the numbers of people with diabetes of approximately 274 000 (King *et al.*, 1998). Also, there are ten times more people with type 2 diabetes in western communities than there are with type 1 (MacKinnon, 1998). Historically, type 2 diabetes has not been a priority issue for the UK government. This is reflected in a recent survey of diabetes services by the UK Audit Commission, whose findings suggest that two-thirds of hospital sites could not tell how many people had received structured care in the past 18 months (UK Audit Commission, 2000), and studies by Goyder *et al.* (2000) and Khunti *et al.* (2001), which suggested that there are a number of deficiencies in the provision of diabetes care.

Individual perceptions about a disease and its treatment may help to explain the behaviour of health professionals and patients in the detection process. A literature search has uncovered few studies which focus on health professionals' and patients' perceptions of early detection. Consequently, most of the following studies concentrate on the ways in which individual perceptions influence the management of diabetes.

### Professional perceptions

In the absence of national policy, it has been left to individual practices to decide whether or not to implement a specific programme of early detection. A study by Kinmonth and Marteau (1989) suggested that doctors have different experiences of disease which may be a barrier to patient care. In their study they suggested that GPs shared a bleaker outlook on diabetes, perceiving that the disease carried more risks and having less confidence that achieving tight blood glucose control would reduce these risks. In contrast, hospital doctors tended to underestimate the prevalence of complications. The results indicated that management of the same patient is likely to be approached differently by hospital doctors and GPs, suggesting that different treatment may be advocated with different expectations. Further research by Murphy *et al.* (1992), Lo (1999) and Williams (2000) explored patients' feelings about diabetes care. They stated that GPs and nurses had particular

opportunities to influence or persuade patients to comply with medical advice. Messages from all studies highlight the impact of health professionals' perceptions about the seriousness of the disease and implications for detection and management.

### Patients' perceptions

A further study by Murphy and Kinmonth (1995) considered patients' understanding of type 2 diabetes. They suggested that patients rationalize their lifestyle choices, given their perceptions of diabetes and its personal implications for each of them. Other studies have considered how much patients know about diabetes. Lack of public knowledge was suggested by the British Diabetic Association Study in 1994 (Singh *et al.*, 1994). In that study, unprompted knowledge of individual symptoms was low, with only 51 out of 1000 people interviewed who recognized that thirst and polyuria were initial symptoms. This knowledge increased following a focused and intensive advertising campaign. However, there was no concomitant increase in levels of perceived seriousness of type 2 diabetes, which indicated that an increase in awareness and knowledge was not followed by an increase in perceived levels of seriousness. Nor does it follow that increased health care knowledge will necessarily lead to a change in behaviour (Hoddinot and Pill, 1999). Similar findings were the results of studies by Callaghan and Williams (1994) and Ternulf-Nyhlin (1990), which suggested a lack of insight or awareness on the part of patients with diabetes.

This study builds upon previous research by asking the question: do patients and health professionals perceive type 2 diabetes to be a serious disease? Although knowledge is of particular interest in this study in that knowledge of diabetes may determine perceptions of seriousness, the construction of knowledge is not considered here. Knowledge and beliefs about health are rooted in wider socio-cultural contexts (Nettleton, 1995) and individuals construct their own versions of disease and its impact. What is considered in this paper are the implications of perceptions of seriousness on initiatives for early detection. The perceptions of GPs, nurses and patients are explored to find out whether type 2 diabetes is perceived to be serious,

and whether this influences an individual's willingness to screen and be screened. The resultant willingness to screen or be screened may have considerable impact upon the identification and management of type 2 diabetes in primary care.

## Aim of the study

The aim of this paper is to explore the perceptions of GPs, nurses and patients, about the seriousness of type 2 diabetes, and the impact these perceptions have upon implications for screening in general practice.

## Methods

### Sampling

Practices were recruited using purposive sampling in order to include practices with different characteristics. General practitioners and nurses were enlisted from eight practices in north-east England. These included those with and without an interest in diabetes, those with a low and a high prevalence of diabetes, and small and large practices. Patients at risk of developing type 2 diabetes were selected from these practices (Table 1).

Towards the latter part of this study, we decided to include patients already diagnosed with type 2 diabetes to explore retrospectively their experiences of diabetes and screening.

### Ethical consideration

The study was approved by local ethics committees, and written informed consent was obtained from participants.

### Data collection

A GP and nurse were nominated by each practice to be interviewed individually by the researchers (DW and SSL). Patients who had fulfilled the necessary sampling criteria were contacted via their GP practices and asked to take part in a focus group interview. They were provided with an information sheet that explained the nature and purpose of the research and this included details about patient selection. A consent form was attached and participants returned the completed forms to the researcher (SSL) which indicated their willingness, or not, to take part in the study. Interviews with individual health professionals took place on the practice premises, and seven focus group interviews with patients took place in local community centres. All interviews were electronically recorded.

**Table 1** Characteristics of practices and participants interviewed in the study

	Totals	Range
Practices <i>n</i> = 8		
Training	4/8 (50%)	
List size (patients)	4/8 (50%) >6000	3750–14000
Diabetes prevalence	4/8 (50%) >2%	1.52–2.8%
General practitioners (GP) <i>n</i> = 10		
Length of time in practice (years)	5/10 (50%) >10	1–22
Interest in diabetes	6/10	
Nurses (PN) <i>n</i> = 9		
With diabetes training	6/9	
Involved in diabetes care	9/9	
Patients in focus groups (FG) <i>n</i> = 45		
Non-diabetics	34/45	
Age range of non-diabetics		48–90
Non-diabetics with BMI >30	13/34	
Non-diabetics on anti-hypertensive drugs	25/34	
Diabetics	11/45	
Age range of diabetics		55–77
Diabetics with BMI >30	9/11	
On anti-hypertensive drugs	11/11	

A semi-structured interview guide based on several key themes related to diabetes and the importance of screening was used. Such themes included: benefits of early detection, priority for screening, experience of screening and the barriers to screening. Individual interviews with health professionals lasted approximately 40 minutes, and focus group interviews with patients last 50–60 minutes.

The focus group interview was thought to be an appropriate method to explore the different cultural beliefs and values of the different groups (Kreuger, 1994). Such interviews encourage participants to disclose feelings and behaviour they might not reveal in an individual interview situation.

Post-research participant involvement was useful in ensuring that the study results and the final report reflected participants' views. A further purposive sample of seven participants (two GPs, two nurses and three patients) from the larger sample, whose views reflected a range of perceptions, were sent a summary of the key research findings and invited to a feedback meeting. This meeting was recorded and analysed and the report modified accordingly. Also, all participants were sent a copy of their individual group analysis and a summary of the key research findings.

### Analysis of data

Transcripts of each interview were analysed individually by both researchers, with the aid of NUD\*IST (nonnumerical unstructured data indexing, searching and theorizing) software. The behaviours of research participants have meaning, and it was this meaning that analysis of data attempted to interpret. Such meanings gain greater focus when background conditions such as context, social structures, personal histories, shared practices and economic conditions are illustrated. With this in mind, a grounded approach to data analysis was used (Glaser and Strauss, 1978; Strauss and Corbin, 1990). The data were coded, and a procedure known as 'data reduction' followed (Miles and Huberman, 1984). This involved making decisions about which data chunks would provide the initial focus, and allowed trends and concepts to be easily identified. Collection and analysis of data proceeded simultaneously until it was judged that no new information was forthcoming (Kreuger, 1994). Reliability of coding was ensured by each researcher coding individually,

*Primary Health Care Research and Development* 2002; 3: 75–84

followed by joint consultation and agreement about the developing themes.

## Results

Although the focus of the study was not primarily the variation in perceptions of seriousness between the three groups (GPs, nurses and patients), distinct differences became apparent. No assumption was made that the groups were homogenous, and indeed within each group there was difference of opinion. However, the following section reveals certain key themes where variation in perception between groups was most marked, and where consensus within each group was apparent. Broadly, the themes can be grouped into three frameworks, none of which are mutually exclusive, which the data would suggest guide an individual's perceptions: medical, political or personal.

### Medical framework

It's easily controlled, this is the impression that I have, is that you get diabetes, too bad, but it's easily controlled.

(FG4)

A medical framework, recognized by the potential to prevent or to cure disease, influenced perceptions about the seriousness of type 2 diabetes. With no known cure at present, the potential to prevent complications was a priority for all groups. Nurses in particular drew upon a preventative strategy:

I suppose you have to think of the long-term benefits, if you're picking up diabetic failures, and preventing complications. In the long run, then it has to be an efficient service doesn't it, or an effective service.

(PN5)

Ageism is a recurring theme throughout the three frameworks and the three groups. Certainly, the potential for clinical improvement was seen to be more marked in the younger age groups. Several nurses suggested that the disease in younger patients was more satisfying to treat because of the potential for improvement and so deserved a higher priority. Others suggested that strict management of an older patient's lifestyle was pointless.

I suppose I wouldn't be as concerned about an 80 year old who's a diabetic than a 21

year old. A young person has their whole life ahead of them, and it could be filled with problems if they don't get it sorted out or helped early enough.

(PN1)

Many patients considered they had lived full lives and priority should be given to younger people.

Younger people have their whole life ahead of them, and no disrespect to these people here, we've all got a lot of years left I'm sure ... But ... I feel as though I've had a good life and I'm 75, and it wouldn't bother me in the least, it really wouldn't bother me in the least if they turned round and said you're a diabetic.

(FG1)

Patients and nurses suggested that diabetes, when treated with insulin, was serious. There appeared to be a strong association between the medical intervention of insulin and the syringe, and perceptions of seriousness. Almost all patients believed that a need for medication meant that a disease was more serious. Type 2 diabetes, which in their experience was controlled largely by diet, could not, therefore, be classed as serious. This reinforced the importance of medication as the cure for serious diseases and is very much at the core of the medical framework.

While GPs believed diabetes to be a serious disease, they maintained that it was modifiable if controlled satisfactorily with diet and medication. Patients believed such modifiability confirmed the less serious nature of the condition, a perception justified because they were unaware of anyone who had died of diabetes. Patients were content to leave the control of their disease to the medical profession knowing that should diet control fail there was always medication. For some patients, diabetes became serious only when it progressed to the point that medical intervention in a hospital setting was needed.

He was on dialysis at the finish. So he was very bad. A full diabetic.

(FG1)

Patients were asked which disease, in their opinion, was a serious disease. With few exceptions, cancer was thought to be far more serious than diabetes. Most patients agreed that death was a strong

possibility following a diagnosis of cancer, that they had no control over the prognosis and that they were acutely aware of its potential to kill at any age. All of which reinforced their belief in its seriousness. Many were aware of several screening programmes for different types of cancer, all controlled by the medical profession.

For example, the recall system employed by many practices as part of a systematic cervical screening programme meant that control of the detection of this disease was managed by medical staff.

There should be a recall system for bringing people in, like for the cervical smear tests for women.

(FG2)

There was evidence that this medicalized view of cancer screening perpetuated perceptions of seriousness of cancer which were linked to images of highly technological screening equipment. The machines, the clinical setting and the perceived power of medical professionals all added to its seriousness. With diabetes screening, however, most patients suggested the test was simple, inexpensive and could be carried out in the practice or at home.

Can one test oneself?

Yes, yes, oh yes. The urine, there's litmus paper and you get a little jar, and away you go.

(FG4)

Compliance with medical regimes was also frequently mentioned by health professionals, and noncompliance was seen as a barrier to the medical model. Prevention necessitated involvement of the patient in diet control and general lifestyle adaptation, and according to the nurses, compliance was a problem. Most believed that patients found it difficult to modify their lifestyle, which may be the result of views held by many patients that diabetes was not a serious disorder unless it required medical intervention.

A diet means it's not important, so it doesn't really matter.

(PN2)

An issue about compliance was also suggested by GPs, several of whom felt that diabetes control

was a continuing struggle for patients and doctors alike, and management was frustrating.

Getting fat old ladies who live on their own em, to change their diet and take more exercise and so on, isn't easy. And in order to em modify their risk factors and lower their blood pressure and treat their diabetes and lower their cholesterol you've often got to treat them with a lot of drugs

(GP4)

Diabetes, a grind.

(GP1)

### Political framework

In the beginning it was targeted as a health promotion clinic. And there was a payment then. And that's when it really became a little bit more organised.

(PN5)

A political culture dominated some individuals' perceptions about the seriousness of diabetes. In particular, there were suggestions about the lack of political will to implement national screening programmes; the unattractiveness of the disease as a political tool and a lack of publicity; education or advertising campaigns and the scarcity of incentives for practices to screen. Although GPs were aware of the then proposed National Service Framework for diabetes (Department of Health, 2001) many were unsure about its application in primary care. GPs felt that although there was strong pressure group presence for issues around cancer screening, there was no equivalent group working on behalf of type 2 diabetes.

Em, cancer is a nice political one isn't it, because people really understand early diagnosis of cancer saves lives, screening for something like diabetes might be more difficult.

(GP9)

It was suggested that the lack of a screening strategy for this condition may be related to the characteristics of the population at risk. GPs, for example, suggested that type 2 diabetes was seen by politicians and public as a condition of the elderly, the obese, patients with co-morbidity and ethnic minorities. This population, according to GPs,

*Primary Health Care Research and Development* 2002; 3: 75–84

may attract less interest and not be a priority for screening.

Well, that's (cervical cytology) hitting a younger group isn't it, which is, from a public point of view more relevant. For the people who make the decisions it's probably more relevant. I don't know, it makes better news doesn't it? Because we're looking at an older age group generally. Aren't we, with diabetes?

(GP7)

All groups agreed that screening was beneficial and lives could be improved through early detection. However, most felt that type 2 diabetes was not attractive politically, was not a national priority and did not attract funding or incentive schemes. GPs, in particular, believed that financial incentive schemes were necessary to encourage implementation of new initiatives in primary care.

Diabetes screening attracts no payments. I mean, it grieves me to say this, but what you see time and time again, if you're getting a large population of GPs to do something, and you want them to do it, I'm afraid we've shown the only way, the only way it seems to work recently, is you set a target. You add a payment to that, and you say 'if you want to earn that money you do this'. By and large, if the money's halfway reasonable, they will.

(GP5)

Without a political drive to push screening forward, GPs felt that they struggled to compete with other targets such as cervical screening which were given a far greater priority. The perceived lack of political push from the centre resulted in spasmodic and unstructured attempts to introduce screening programmes locally. Also, nurses suggested that people with diabetes who became symptomatic would eventually be detected in primary care, therefore reducing the necessity to screen.

The majority of patients do have some sort of symptom I would think, so I think sooner or later they would present or it would be picked up anyway. So maybe we're just finding out a little bit earlier.

(PN3)

## Personal framework

There's far worse illnesses to be frightened of than diabetes.

(FG 4)

The data suggested that perceptions about the seriousness of type 2 diabetes were influenced by several personal factors. First, what is known and understood about diabetes. Secondly, the strategies people use to deal with diabetes or the potential to develop diabetes. Finally, the way people use information and medical advice to fit in with their individual circumstances.

Five of the focus groups involved patients with at least one risk factor of developing type 2 diabetes. The remaining two groups contained patients previously diagnosed with diabetes. The non-diabetics were not aware that they were at risk, and none of the diabetics had experienced serious health problems since diagnosis. Only one patient, a former nurse, was aware of the association between diabetes and heart disease. When asked about any known complications arising from diabetes, many talked about amputated limbs, blindness and comas, but few knew why such complications developed or what the early signs were. No one associated diabetes with vascular disease.

I mean, the reason I've never considered diabetes as being something serious is that I don't know anything about it.

(FG4)

I didn't know there was any link between heart attack and diabetes.

(FG3)

It is questionable whether this stated lack of knowledge was significant in determining their perception of the disease as nonthreatening or not serious, or whether their acceptance of the disease as not serious resulted in a passivity which did not encourage a search for knowledge on the subject.

Well as far as I'm concerned it's not a life threatening thing, because if you're going to get something wrong, I'd rather have that than something else.

(FG3)

As complications that develop from diabetes can include heart disease, many patients failed to link death directly to diabetes. This lack of association

was highlighted by remarks made by patients during separate focus group interviews.

Does anyone know people who die of diabetes?

(FG3)

Does one hear of people dying of diabetes?

(FG4)

You don't hear it broadcast when people die of diabetes as much as you do when they die from cancer.

(FG2)

Some illuminating quotations came from patients who had previously not considered any serious aspect of diabetes, and those for whom diabetes held no fear.

If I had to think about it I'd probably think as though it was something that is probably slightly more serious than a cold.

(FG4)

It isn't at all frightening if you have it.

(FG3)

Patients suggested that it was easier to have type 2 diabetes than to have any kind of cancer, curable or not. The seriousness attributed to cancer far outweighed the seriousness attached to having type 2 diabetes. This denial of seriousness on the part of the patient may be partly influenced by the nurses' acceptance of their own lack of knowledge, and their belief that such lifestyle advice is wasted on the older patient who finds it difficult to change. The GPs' personal perspectives are reflected in their feelings of failure to control difficult cases, and their frustration at not being able to improve that person's health, although such frustrations may be the result of a more medical framework.

During the focus group interviews with patients, it became apparent that many patients, including those diagnosed with diabetes, wanted to use the interview sessions to discuss and compare symptoms, risks and medication.

I would just like to know what sort of symptoms one would get to be bothered enough to find out whether you had it.

(FG4)

Does it run through the family, this diabetes?  
(FG4)

There was an expressed need for more information as patients compared experiences and were often very surprised to hear about how others coped with this disease, and the risks associated with diabetes.

### Study limitations

This study design has raised an important ethical issue. Instructions from the local ethics committee insisted that the written invitation to patients to participate in the study included a description of the study, together with an explanation of how patients were sampled. All patients were therefore told that they had one or more risk factors for developing type 2 diabetes. Some patients expressed concern about this and believed this meant they would develop diabetes. The interviewer was unable to say this would not happen and consequently some patients felt they needed to visit their GP. The issue of creating unnecessary anxiety for a patient who may never go on to develop diabetes must, however, be balanced by the need to create a greater awareness of the risks associated with a serious disease like diabetes.

### Discussion

Do patients and health care practitioners take type 2 diabetes seriously? There has been little written about the seriousness professionals and patients attribute to type 2 diabetes. Assumptions are sometimes made that early detection and management of any disease is important and that the majority of people will recognize the need for systematic identification and control of type 2 diabetes which has far reaching health consequences. Much of the literature published therefore has concentrated mainly in the field of management of this disease (Callaghan and Williams, 1994; Goyder *et al.*, 2000; Williams, 2000).

However, the view a person has about a disease, a view grounded in medical, political and personal frameworks (Nettleton, 1995), must influence their understanding, interest, fear and generally appreciation of its seriousness. The subsequent values and importance placed upon this condition will deter-

mine how people respond to calls for early identification and management in primary care.

The aim of this paper was to explore perceptions of seriousness, and the key finding was the difference of opinion between health practitioners and patients regarding seriousness of type 2 diabetes. Analysis of these different views has suggested there are three different but overlapping frameworks which influence perceptions of seriousness. A medical framework suggests that seriousness of type 2 diabetes is determined by ideas about prevention and cure, need for individual lifestyle change, bias towards younger patients and anticipated medication. In short, diabetes is perceived to be more serious when intense medical intervention is required. Patients were made aware of the seriousness of the disease when medicine intervened, when health professionals managed care from detection through to treatment. For all participants, diabetes was thought to be a modifiable and manageable disease which required compliance by the patient and did not require intense medical treatment in its early stages. The lack of intense medical intervention in the case of diabetes led patients to believe that the condition was not serious. Patients appeared actively to seek a medical explanation and treatment in a similar way to the treatment of cancer. GPs and nurses also believed that compliance with the medical model and medical regimes would ensure that complications would be avoided if treated appropriately with drugs and diet.

Despite growing rhetoric which insists that the medical model is losing influence in favour of a more socially oriented, holistic approach to health care, its levels of influence are still strong. This model is so pervasive that it successfully advocates identification of asymptomatic individuals and turns them into lifelong patients. GPs were aware of the growing demand for more and more screening to detect a disease which has no cure. This raises several ethical dilemmas as patients may become more anxious as they receive more information, particularly as they become more aware of their own risk factors of which they may have been previously unaware. The question must be asked whether it is better to leave a person undiagnosed until symptoms begin, which again raises ethical questions concerning truth telling and deceiving to protect (Goldie, 1982; Jackson, 1991).

A political framework will guide perceptions of



seriousness in terms of national incentives and priorities and the need for a centralized push for screening. All groups believed that diabetes screening was not politically attractive compared with the drive for systematic cancer screening. Health professionals felt that financial incentives were needed to encourage new initiatives in primary care. Despite the agreement among all GPs that type 2 diabetes was a serious condition with significant consequences, they believed that politicians and members of the public failed to recognize its serious implications. A lack of drive resulted in failure to implement diabetes screening. Patients did not identify lack of funds as an issue, and believed that a serious disease would attract the necessary funding.

There is an association between political and medical frameworks, as it would be difficult to imagine progress of the medical engine without the necessary political will. Examples of existing systematic cancer screening programmes have already been mentioned. These programmes are politically enabling in that they encourage and maintain vital public support in the quest for improved health and reduced mortalities. Government incentives to include early detection programmes are seen as vital in order to encourage and sustain practice. There is also a suggestion that recent government drives to decentralize services and make them more accessible to local people has removed early detection programmes from the medical sphere by bringing them into the community. As patients associate hospital settings with seriousness, decentralization may act as a psychological barrier to the perceived need and subsequent uptake of these services.

A more personal framework suggested that perceptions of seriousness were determined by personal attitudes towards and understanding of diabetes and comparisons with diseases like cancer. However, the more personal influences may at times appear to be eroded as individuals' perceptions are continually shaped by pervasive medical and political cultures. Health professionals work within medical and political cultures where traditions and values ensure that they recognize the seriousness of diseases like type 2 diabetes. However, these cultures appear to work in the opposite direction with patients. The consequence of perceived lack of medical and political emphasis is that patients perceive the condition to be less seri-

ous, less threatening, than a disease like cancer. Although they talked of possible complications, it appeared that patients did not engage personally with the disease or its complications as they knew no one who had died of the disease. Such perceptions were justified by diabetic patients' feelings of wellness and the perceived absence of any complications. Even those diagnosed with diabetes felt they had a low awareness of the disease and its processes. For example, they knew that high blood sugar was to be avoided, but several did not know why.

The lack of knowledge about type 2 diabetes and the subsequent perceptions of it being a nonthreatening disease may be responsible for the lack of motivation to comply with lifestyle advice. During the focus group interviews, many patients wanted to use the sessions as a way of finding out more about the disease. The focus group process appeared to encourage and to provide a forum for patients to find out more about the disease and its effects.

## **Conclusions**

Three overlapping frameworks help to explain why individuals have certain perceptions about the seriousness of type 2 diabetes. GPs in this study appear to be more strongly situated within a political framework. Core elements of such a framework include: the need for political will to drive an early detection programme; the need for national incentives for primary care; the use of targets; and prioritization of all primary care activities. GPs and nurses are also guided within a medical framework which: aims to prevent or cure diseases; highlights the need for medical intervention; seeks compliance with medical regimes; results in frustration with non-compliance and is ageist. The personal framework appears to be more closely associated with patients, whose perceptions are guided by their knowledge (or lack of it), their understanding and experiences of type 2 diabetes. Medical, political and personal frameworks all have implications for the care and management of type 2 diabetes in primary care, and future interventions need to address each one in isolation and as an integrated whole. This study is the beginning of a process which seeks to do this. It offers insights into perceptions around the detection and management

debate. It highlights the need to examine patients' and health practitioners' beliefs and knowledge about the seriousness of conditions like type 2 diabetes, in order to assess the potential of future health care. Such a study will help to inform the implementation of the National Service Framework for diabetes which, among other aspects of diabetes, focuses on its prevention and on the identification and management of people with type 2 diabetes.

The conclusions of a small study like this one cannot be generalized. However, the strength of opinion evident in all interviews suggests that there is a need for a much larger study to explore the perceptions of the general public about the seriousness they attribute to certain conditions and how these perceptions affect behaviour.

## Acknowledgements

We would like to thank the patients, nurses and doctors who took part in this study. This study was supported by a grant from the Scientific Foundation Board of the Royal College of General Practitioners.

## References

- Callaghan, D.** and **Williams, A.** 1994: Living with diabetes: issues for nursing practice. *Journal of Advanced Nursing* 20, 132–39.
- Department of Health** 2001: National Service Framework for Diabetes. [www.doh.gov.uk/nhsf/diabetes/framework.htm](http://www.doh.gov.uk/nhsf/diabetes/framework.htm) 21 August 2001.
- Diabetes UK** 2001: UKPDS – Implications for the care of people with type 2 diabetes. [www.diabetes.org.uk/info/state.type2.htm](http://www.diabetes.org.uk/info/state.type2.htm) 6 June 2001.
- Glaser, B.** and **Strauss, A.L.** 1978: *The discovery of grounded theory*. New York: Aldine.
- Goldie, L.** 1982: The ethics of telling the patient. *Journal of Medical Ethics* 8, 128–33.
- Goyder, E.C., McNally, P.G., Botha, J.L.** 2000: Inequalities in access to diabetes care: Evidence from a historical cohort study. *Quality in Health Care* 9, 85–89.
- Hoddinot, P.** and **Pill, R.** 1999: Qualitative study of decisions about infant feeding among women in east end of London. *British Medical Journal* 318, 30–34.
- Jackson, J.** 1991: Telling the truth. *Journal of Medical Ethics* 17, 5–9.
- Khunti, K., Ganguli, S., Baker, R.** and **Lowy, A.** 2001: Features of primary care associated with variations in process and outcome of care of people with diabetes. *British Journal of General Practice* 51, 356–60.
- King, H., Aubert, R.E.** and **Herman, W.H.** 1998: Global burden of diabetes. *Diabetes Care* 21, 1414–31.
- Kinmonth, A.L.** and **Marteau, T.** 1989: Doctors' beliefs and the management of insulin dependent diabetes: implications for sharing care. *Family Practice* 6, 193–98.
- Kreuger, R.A.** 1994: *Focus groups: a practical guide for applied research*. London: Sage.
- Li, P.L.** and **Logan, S.** 1996: The current state of screening in general practice. *Journal of Public Health Medicine* 18, 350–56.
- Lo, R.** 1999: Correlates of expected success at adherence to health regimen of people with IDDM. *Journal of Advanced Nursing* 30, 418–24.
- MacKinnon, M.** 1998: *Providing diabetes care in general practice*. London: Class.
- Miles, M.** and **Huberman, A.** 1984: *Qualitative data analysis*. London: Sage.
- Murphy, E., Kinmonth, A.L.** and **Marteau, T.** 1992: General practice based diabetes surveillance: The views of patients. *British Journal of General Practice*, 42, 279–83.
- Murphy, R.** and **Kinmonth, A.L.** 1995: No symptoms, no problem? Patients' understandings of non-insulin dependent diabetes. *Family Practice* 12, 184–92.
- Nettleton, S.** 1995: *The sociology of health and illness*. London: Polity Press.
- Robson, J.** 1998: Screening in general practice and primary care. *British Medical Bulletin* 54, 961–82.
- Singh, B.M., Prescott, J.J.W., Guy, R., Walford, S., Murphy, M.** and **Wise, P.H.** 1994: *Effect of advertising on awareness of symptoms of diabetes among the general public*. The British Diabetic Association Study.
- Strauss, A.** and **Corbin, J.** 1990: *Basics of qualitative research: grounded theory procedures and techniques*. CA: Sage.
- Ternulf-Nyhlin, K.** 1990: A contribution of qualitative research to a better understanding of diabetic patients. *Journal of Advanced Nursing* 15, 796–803.
- UK Audit Commission** 2000: *Testing times: a review of diabetes services in England and Wales*. London: UK Audit Commission.
- Williams, M.** 2000: Putting patients first in diabetes care: the practice nurse's role. *Community Practitioner* 73, 719–21.