ORIGINAL ARTICLE

Patients with poorly controlled diabetes in primary care: healthcare clinicians' beliefs and attitudes

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Objective: To determine doctors' and nurses' attitudes and beliefs about treating patients with type 2 diabetes with less than ideal glycaemic control while receiving maximal oral treatment in primary care.
Design: Focus groups.
Setting: Primary care.
Participants: Four focus groups of 23 GPs and practice nurses.
Results: General practice was thought to be the best setting for managing all patients with type 2 diabetes but there were concerns about a lack of resources and unfamiliarity with starting insulin. Issues around compliance were extensively discussed; the ''failing diabetic'' had dual meanings of failing glycaemic control and failing compliance and effort by both patient and doctor. Although views about insulin therapy differed, patients were understood to be resistant to starting insulin, representing for them a more serious stage of diabetes, with fears of needles and hypoglycaemia.
Conclusion: The role of diabetes specialist nurses working in primary care will be crucial in managing such patients to improve knowledge, for extra resources, for their experience of insulin use, and to change attitudes.

Type 2 diabetes affects 1.8 million people in the United Kingdom with a further one million yet to be diagnosed (2%–4% of the population),[1] most of whom are managed in primary care. It causes significant mortality and morbidity, particularly from coronary heart disease, stroke, renal failure, lower limb amputations, and blindness.[2 3] Although good glycaemic control can reduce morbidity from microvascular complications by 25%,[4] glycaemic control is often less than ideal and there seems to be reluctance by both patients and their doctors to tackle the problem when maximal oral treatment is failing.[5] Many GPs have a pessimistic outlook towards diabetes,[6] which is unfortunate as positive beliefs of physicians towards strict blood glucose control are related to good glycaemic control in patients.[7]

Current guidelines clearly state that when good glycaemic control is not achieved with maximal oral treatment then insulin should be considered[8]—indeed many patients feel better taking insulin and the elderly generally cope well with insulin.[9 10] However, in practice, patients are seen who have continued in very poor control for long periods of time. There has been a relative paucity of information relating to clinicians' attitudes and beliefs in the area of type 2 diabetes, particularly towards those patients who are in poor glycaemic control. GP trainers were more pessimistic about diabetes and less rigorous in their treatment compared with hospital physicians in a questionnaire study.[6] It often seems there is collusion between doctor and patient to avoid insulin therapy.[5 11] Understanding the attitudes and beliefs of primary care clinicians involved in diabetes care is important if implementation of current guidelines is to be improved. A qualitative explorative approach, adopted here, was felt to be most appropriate given the paucity of studies exploring primary care clinicians' views on diabetes care. Focus groups were used for their ability to allow participants to pursue their own concepts and priorities while permitting exploration of how points of view are constructed and expressed. They are particularly suited to the study of attitudes and experiences around specific topics.[12] The aim of this study is to investigate doctors' and nurses' views about the difficulties and uncertainties faced in primary care in treating patients with type 2 diabetes with unacceptable glycaemic control receiving maximal oral treatment.

METHODS

Four focus groups were held, each with four to eight participants. Two groups were with GPs, one with GP trainers, and one with practice nurses. All were in the north east of England (table 1).

Recruitment

A list of general practices and GPs was obtained from the health authority. The practices were telephoned and a request made to speak to any available partner. The study was briefly outlined and if that doctor could not participate they were asked to nominate one of their partners who was subsequently similarly contacted. No specific attempt was made to enrol doctors with a special interest in diabetes and only one doctor in each practice was recruited as a purposive sample. Doctors agreeing to participate were then sent written information on the study. GP trainers, identified from the local vocational training scheme, were contacted by telephone and invited to participate. Practice nurses meeting regularly as part of a practice nurse support group from a local primary care group were invited, one from each general practice.

The interviews

The focus groups were held in an informal quiet meeting room with a relaxed atmosphere, in practice premises, or in a university department and conducted by one of the authors (DJ) who introduced himself as a local GP conducting research into the management of type 2 diabetes. The discussion was directed by a set of semi-structured open questions that included views of the role of primary care in the management of patients with diabetes, views about what is meant by ''failing'' diabetes, views about compliance, views about starting insulin, and views about barriers to effective care. The discussion was tape recorded and fully transcribed.

Table 1 Participants in the focus groups

	Number (female)	Years qualified	MRCGP	Diabetic nursing qualification	Training practice	GP trainer
GPs	15 (4)	12–41	12	NA	7	4
Practice nurses	8 (8)	6–28	NA	7	2	NA

The data analysis

The transcriptions were entered into the qualitative computer software programme QSR NUD.IST vivo[13] to aid analysis. Each group was initially analysed independently and then comparisons made across groups. Analysis began after the first focus group was held to allow emergent themes and concepts to be incorporated and explored in subsequent focus groups. An iterative approach to coding following an ''editing organising style''[14] was used. New categories were identified through direct interaction with and sifting and coding of the text. Codes were developed directly from the text by identifying relevant categories and themes in an iterative process between the text and the organising process, bearing many similarities to grounded theory.[15] The transcripts were coded independently by two of the authors (DAJ and APSH).

Validity and reliability

The full results and discussion sections of the study were posted to participants inviting their comments and their overall level of agreement on a five point Likert scale with one reminder. Of the 23 participants, 21 replied (87%). Two participants were not contactable having moved abroad. All indicated agreement or strong agreement with the results.

RESULTS

The role of primary care

The participants were asked about the role of primary care in the management of patients with diabetes.

There was a strong feeling that primary care was the best setting in terms of continuity, consistency, commitment, and accessibility for most routine diabetes management. Nevertheless, views expressed contradicted this rather optimistic picture. Poor resources were mentioned, with already overstretched demands on chiropody and dietetics. This was felt likely to be increasingly problematic with the rising prevalence of diabetes and increasing use of insulin and would, for instance, increase district nurse workload. Practice nurses were considered well motivated and well placed to deliver most the of care with GPs (particularly those with an interest in diabetes) managing complex problems. It was felt that GPs lacked experience particularly in starting insulin. There was thought to be a need for GPs with special interests in diabetes working at above practice level and for more diabetic specialist nurses to give advice and support.

Compliance

The facilitator stated that too many patients seemed poorly controlled and asked the participants to define ''failing diabetes''. They were asked how they felt about managing such patients, how they managed them, the barriers to good care and, towards the end of the discussion, were asked about compliance.

There was considerable discussion about failing diabetes and it was apparent that there were differences in meanings of the failing diabetic patient, with some participants using biochemical definitions and others describing disease progression as the cause. Nevertheless, the most important descriptions and concerns related to poor compliance.

Throughout the interviews examples of good and poor compliance were used. There was a clear moral implication with blame attached potentially to patients and doctors; failing meant both increasingly poor glycaemic control and lack of adequate effort. This participant describes the moral dimension in the failing diabetic patient:

> You always blame compliance and other problems on the patient or put the blame on you (yourself for) not doing it properly. You never quite know how the land lies.

There seemed to be uncertainty about the size and cause of the problem with compliance. Some participants quoted literature about the extent of non-compliance, some their experience of patients not collecting prescriptions in a timely fashion, and others blamed compliance with diet rather than with medication.

There were a range of views about the causes of non-compliance including ignorance and misinformation about diabetes and its long term consequences. Participants felt that it was often difficult for patients to be sufficiently disciplined on a long term basis to maintain good control. Other difficulties mentioned included providing two menus within the family and pressures from others to have inappropriate diets. The problems complying with polypharmacy, particularly in relation to hypertension, were discussed. Finally, participants mentioned patients choosing not to comply with treatment or diet on a long term basis despite being aware of the consequences, as for this participant:

> The fully counselled patient who doesn't want to go on insulin but has an unacceptable glycosylated haemoglobin, where do they fit into this, are they a failure?

Considerable frustration was expressed with dealing with patients of different ethnic backgrounds. Although some participants acknowledged their ignorance concerning different cultural beliefs, others believed that cultural beliefs interfered with good control of glycaemia. For instance they thought that cultural beliefs included the idea that being fat is healthier and an aversion to the use of insulin therapy. They felt extended families sometimes prevented necessary changes in an individual patient's approaches to diabetes self care. Problems in communication were mentioned. These included, as well as the obvious problems such as language differences and use of family members as interpreters, differing attitudes towards professionals (although some participants believed ethnic groups had a more submissive attitude towards professionals and others believed they had a more adversarial approach). This participant describes some of these aspects:

> We see patients twice a year and the family and friends are there all the time, you know, I mean, we are supposed to be more powerful figures, but I mean, it's quite difficult to overcome very different beliefs within the family.

The participants discussed different methods to counteract poor compliance. Better provision of education was thought necessary. Some believed that only major events, such as a myocardial infarction would improve some patients'

compliance. ''Shock aversion therapy'', with explicit pictures of unpleasant complications was discussed as a method to convince patients of the seriousness of their condition. It was also felt that patients needed to be empowered to take responsibility for their own diabetes, as for this participant:

> I sometimes can see an improvement in compliance when they switch to insulin which underlines the fact that they contribute to the management of their illness. And they decide they've got to contribute a bit more to the management of their illness.

Insulin

The participants were asked how they felt regarding insulin for patients with type 2 diabetes and its role in older patients.

Although insulin therapy was seen as beneficial for patients with type 2 diabetes in poor glycaemic control, there was reluctance to start it. The clinicians felt they lacked familiarity with the practicalities of starting insulin treatment. There was a perceived need for more support to facilitate the introduction of insulin. The role of the diabetic specialist nurse in this context was highlighted:

> It's the process of getting them onto the insulin … that's where we need the support… I certainly don't have the experience as you rightly said, putting patients on insulin, what dose and when, we need a diabetic liaison nurse and she is going to be swamped

They also understood patients to be highly resistant to starting insulin, seeing it as representing failure and representing a more serious stage associated with all the complications of diabetes, as for this participant:

> I think probably they think it's the end, that's it, there's nothing else they can have after that.

Clinicians saw patients as having two major fears regarding insulin, namely a fear of needles and injections and a fear of hypoglycaemia as for these participants:

> Surely, one of the biggest barriers is this fear of going onto needles for the rest of your life.
> I think the effect of getting older is that they hate the idea of hypoglycaemia as well. They get very frightened of that.

The concept of collusion between doctor and patient in avoiding insulin was also raised:

> They've often been on oral hypoglycaemics for years and years and they nearly all know other diabetics who have been on insulin and have had major complications, and they see that as the beginning of a slippery slope. That's their resistance to insulin. They see that as being their point of failure almost. I think that some patients can be very persuasive to us to let you say you don't want me on insulin. The patients don't want to go on it. So there is a joint tendency that they don't go on it.

However, these ideas were not universal and some participants mentioned that starting with insulin was easier than expected:

> …Patients find the idea of going on to insulin less problematic than they used to do. Whether that's because we prepare them… or whether there's more immediate information available… but it doesn't seem to be too much of a problem.

There was a range of opinions about the role of insulin in the elderly patient. Some felt treatment should be fairly aggressive regardless of age. Others advised caution feeling that the elderly patient's ability to cope with more complicated regimens was often limited. There was concern over the higher risks of side effects and their potential for greater harm in the elderly patient. A realistic estimation of the potential benefit to the elderly person of intensifying their treatment was felt to be necessary. Balanced against this was the need to assess the person's capabilities, comorbidities, and social circumstances in drawing up a management plan:

> You know the old lady…her eyesight's very poor and she is dead set against insulin therapy. One wonders whether she will cope with injections…

DISCUSSION

Primary care was considered the ideal situation to manage most of the patients with diabetes, including patients with problematic glycaemic control, although a recent national policy with financial incentives to practices providing organised diabetes care may be relevant.[16] However, resources were considered barely adequate currently and there were concerns about worsening problems with increasing numbers of patients with diabetes, and increased use of insulin. Indeed there is evidence that with increasingly organised care in primary care, the detection rate for diabetes has increased significantly.[17] An important skills deficit for GPs starting patients with insulin was identified, and the need for diabetes specialist nurses involvement in starting with insulin discussed.

The leader of the focus groups was known to a number of the participants as a fellow GP. This, in qualitative studies, can facilitate a discussion of rich clinical cases but introduces other biases.[18] However, the choice of a focus group approach dilutes the affect of the researcher's persona as participants tend to address each other during the discussions.[12]

One example of this type of discussion concerned failing diabetic patients. Although the facilitator asked the groups to define failing diabetic patients, there was considerable, broad, discussion around this area and it was apparent that failing diabetic patients had multiple meanings for the participants, which included issues around compliance, insufficient effort to maintain good control and guilt, both on the patient's behalf and professionals. This in one sense reflects the uncertainty apparent in the literature around the term.[19] However, attitudes towards insulin seemed positive, which contrasts with earlier studies[6] and may reflect recent trials.[4] There were differences between participants with regard to use of insulin in the elderly patient.

The discussion around compliance raises certain issues. The participants talked about the need to educate patients. At times this meant providing information that they felt patients lacked, but at other times there was the sense of reinforcing of knowledge already known, encouragement (or ''nagging'') and reinforcing of the message that diabetes is a serious condition. These aspects of ''doctor talk'' in diabetes have been noted before.[20] Participants saw patients as being reluctant to start insulin, fearing needles, and the risk of hypoglycaemic episodes. They felt some patients saw insulin as representing failure, associated with inevitable complications. Earlier literature does suggests that clinicians tend to be more pessimistic than patients and overestimate the barriers complying with treatment.[6 21]

The discussion about issues around compliance raises a further reason why starting insulin in failing diabetic patients may be difficult. If professionals define the failing diabetic patient in terms of compliance, it would seem probable that management of such patients will be seen in terms of improving compliance through education, ''forcing'', and strict control. The introduction of insulin therapy is likely then to take a lower priority and be delayed.

There was evidence from the transcripts that GPs disengage themselves from the active management of ethnic minority patients, one of the neediest groups of diabetic patients. Patients of ethnic Asian origin were seen as a ''closed group'' with whom ''normal'' dialogue and clinical intervention is problematic and barriers difficult to overcome. Ethnic minority populations are small in the practice populations of the participants and this may help to explain some of the misconceptions.

Secondary oral treatment failure in type 2 diabetes was here viewed as a serious problem in need of energetic treatment. Reluctance to start insulin is still apparent but the reasons have changed. In the past doubts existed about the efficacy of insulin for patients with type 2 diabetes.[10] Here insulin was seen as efficacious but there was resistance because of a lack of support, a skills deficit, and a lack of confidence and experience in starting insulin. To compensate, a degree of specialisation in diabetes was seen as an increasingly necessary measure in dealing with the complexities of modern diabetes care. Developing the role of diabetic specialist nurses within primary care is crucial if more patients with poorly controlled diabetes are to receive insulin—for knowledge, resources, experience in use in older patients, and also for a change of attitudes. The research points to the need to explore what patients think about failing control.

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