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Perceptions of a service redesign by adults living with type 2 diabetes.

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## **ABSTRACT**

### **Aim**

This paper is a report of a study conducted to explore the perceptions of adults with type 2 diabetes towards the service redesign.

### **Background**

Diabetes is reaching epidemic proportions and the management of this chronic illness is changing in response to this challenge. In the United Kingdom, there is ongoing restructuring of healthcare services for people with chronic illnesses to ensure that their general health and clinical needs are met predominantly in primary care.

### **Method**

An explorative qualitative approach was used. Eight focus groups were conducted with 35 people with type 2 diabetes in one urban location between 2003 and 2004. Five focus groups were conducted with people who had recently experienced the restructured service and three groups with people who had up to two years' experience of the new service. Concurrent data collection and thematic analysis were conducted by three researchers and credibility and verification sought by feedback to participants.

### **Findings**

Five main themes were identified: impact of living with diabetes; understanding diabetes; drivers for organisational change; care in context; and individual concerns. Participants identified issues for ongoing development of the service.

### **Conclusion**

People with type 2 diabetes appreciate their care management within the primary care setting where there has been investment in staff to deliver this care. Healthcare resources are required to support the development of staff and the necessary

infrastructure to undertake management in primary care. Policy makers need to address the balance of resources between primary and secondary care.

**KEY WORDS**

service redesign, adults, perceptions, Type 2 diabetes, focus groups, nursing

## **SUMMARY STATEMENT**

### **What is already known about this topic**

- There is a global epidemic of type 2 diabetes and this creates challenges for providers of healthcare services.
- Type 2 diabetes is a lifelong chronic condition that is increasingly being managed in primary care.
- Management of type 2 diabetes involves lifestyle modifications, risk factor management to reduce cardiovascular risk, medications management and monitoring for physiological changes.

### **What this paper adds**

- People with type 2 diabetes take responsibility for their own health and their preferred diabetes management is within a primary care model where they are cared for holistically by a multiprofessional team.
- People with type 2 diabetes have confidence in primary healthcare professionals who had received additional education in diabetes both for their direct care management and for referral to specialist services.

- People with type 2 diabetes want a named person to provide ongoing education and information about diabetes and its management to assist their understanding of living with diabetes.

### **IMPLICATIONS FOR PRACTICE AND/OR POLICY**

- People with type 2 diabetes appreciate their care management within the primary care setting where there has been investment in staff to deliver this care.
- Healthcare resources are required to support the development of staff and the necessary infrastructure to undertake management in primary care.
- Policy makers need to address the balance of resources between primary and secondary care

## **INTRODUCTION**

There is currently an increased expectation that people will engage as active partners in their care management when they live with a chronic illness (Department of Health 2006, Nagelkerk et al 2006, Telford et al 2006, Thorne 2006). This expectation acknowledges that people become 'experts' in living with their own condition and, through working in collaboration with professionals, can ensure that their own needs are appropriately met. As a chronic illness, diabetes is reaching epidemic levels globally (Amos et al 1997) and projections suggest that there will be 342 million people diagnosed with diabetes by 2030 (WHO 2005), with the highest prevalence in developed countries. Eighty percent of people with diabetes have type 2 diabetes, and its prevalence is higher in certain ethnic groups and increases with age.

## **BACKGROUND**

People with type 2 diabetes are currently managed in the United Kingdom (UK) through a variety of care models. Some are managed totally within secondary care, others increasingly are being managed within primary care and yet others receive a mixed model of care. For more than a decade, diabetes care management has increasingly become the responsibility of the primary healthcare team (Goyder et al 1998, Tasker 1999, Jayasuriya et al 2000). The rising incidence of diabetes and limited healthcare resources have encouraged this (Amos et al 1997, NHS Executive 1997, Goyder et al 1998, Tasker 1999, Jayasuriya et al 2000), not least because people can receive effective management within primary care provided that there are robust structures in general practice (Griffin & Kinmonth, 2005) and referral systems to

specialist care. Therefore primary care is an ideal setting for managing the chronic illness of diabetes.

In June 2001 in Scotland the Glasgow Diabetes Project was established by the then Greater Glasgow Health Board (GGHB). The lead responsibility for the management of people with type 2 diabetes, including those newly-diagnosed, was moved from secondary care staff to multi-professional primary care teams, with the exception of eye screening, which was addressed on a city-wide approach. At this time, primary care in GGHB comprised 15 Local Health Care Co-operatives (LHCC). The Project had a phased implementation plan commencing in one LHCC and thereafter being extended across GGHB.

Several requirements were made of the primary healthcare professionals prior to implementation. All staff involved in providing direct health care were required to undertake accredited diabetes training.

General practitioners (GPs) were required to carry out an annual review for people with type 2 diabetes, recording specified clinical parameters (Clinical Standards Board for Scotland 2001), to maintain a call/recall system for appointments and to take appropriate action to improve control of diabetes as well as to manage risk factors for diabetes complications. Other members of the multiprofessional team were to be available for consultation at these annual reviews.



All those with type 2 diabetes received a letter from their GP to inform them of the change in service delivery. This letter gave them the option to remain with secondary care management or to move to the restructured service delivery system.

## **THE STUDY**

### **Aim**

The aim of the study was to explore the perceptions of adults with type 2 diabetes towards the service redesign.

The study objectives were:

To explore perceptions of the major changes in delivery of diabetes management for adults with type 2 diabetes.

To explore the personal experiences of adults with type 2 diabetes of living with diabetes.

### **Design**

An exploratory qualitative approach was adopted and focus groups were used for data collection.

### **Participants**

It is recommended that a sample for qualitative research is not strictly pre-specified in case important data sources are overlooked (Russell and Gregor 2003) and so purposive sampling is often used. For this study, both purposive and random sampling were used to ensure recruitment of a range of participants representing different ages,

sexes and ethnic backgrounds and thereby enable exploration of different perspectives (Morgan 1997, Lane et al 2001).

Purposive sampling was employed to ensure that the appropriate range of experiences was addressed. One LHCC commissioned this study. It consisted of 14 GP surgeries with 63028 patients, of whom 1402 had type 2 diabetes. Eight GP surgeries were purposively targeted for inclusion according to their implementation date of the restructured service, and all agreed to participate. Five focus groups were conducted in the five surgeries early after the introduction of the new service in 2003. This included one surgery with a very high ethnic minority population. Three focus groups were conducted in 2004 in the three GP surgeries that had been at the forefront of delivering the new service, and people therefore had approximately 2 years of experience with the new service.

Within these eight surgeries, random sampling was used to invite people to participate. The 11<sup>th</sup> person with type 2 diabetes (n=73) from each of eight surgery registers (n=100) were sent a written invitation to participate in the study, allowing for approximately 9 people per focus group. People were followed up a week later with a telephone call to answer any questions and to receive oral consent.

### **Focus group topic guide**

A topic guide for the focus groups (Figure 1) was used as a prompt to encourage discussion. This was derived from a variety of sources. First, the aims of the overall study influenced the topics for discussion. Literature on the changing scene in

diabetes management in the UK, clinical experience and expert knowledge were all used to develop the guide.

### **Data collection**

Written informed consent was obtained prior to each focus group. All groups were conducted in a private room at the GP surgeries and were undertaken in two phases. Five were conducted in the autumn of 2003 and a further three in the autumn of 2004.

Each focus group lasted between 60 and 90 minutes and was moderated by a lead researcher. Flexibility was employed to ensure that participants talked about matters that interested and concerned them in relation to living with diabetes, as recommended by Roberts (1997). A research assistant was present to assist with logistical matters and take field notes. Discussions were tape recorded and then transcribed verbatim.

Focus groups were used specifically to allow interaction between the participants on the ideas raised. In all groups, introductions were made to each other and ground rules established for contributing to the discussion. One group conducted with ethnic minority participants was particularly challenging as one member required a translator and there appeared to be several informal interactions without translation although, when asked, the individuals would summarise the content of their discussion.

### **Rigour**

In qualitative research, meaning rather than knowledge is the end point and interactive communication (like focus groups) is the context in which knowledge is clarified

(Grbich 2007). As individual views are subjective and therefore valid for that person, the credibility of each individual's contribution is important.

Dependability refers to the stability of information over time. For this reason, focus groups were conducted at two different time periods: early on in the introduction of the new service and with those who had most exposure to the new service, and with different groups. Any convergence of views would imply that the findings were dependable.

Focus groups were conducted until saturation was achieved with both those who were new to the restructured service and those who had longer experience of it. Member checking was also used to confirm and validate the findings and to increase rigour (Russell and Gregory 2003) once the preliminary analysis had been conducted. All participants were sent a written summary of the findings and feedback sheet and invited to attend a feedback session for verification of findings. The feedback session was held in a local community hall. Individuals were encouraged to make comments either orally or anonymously through a response sheet. Written responses were received from both attendees and non-attendees at the feedback session. The analysis below demonstrates the transferability of the findings to the management of other chronic illnesses.

### **Ethical considerations**

The study was approved by the appropriate ethics committee. People were assured of confidentiality of their responses, anonymity in presentations and that they could withdraw from the focus groups at any time without detriment to their care. People

were also advised to contact their GP or Practice Nurse with any clinical issues that arose in the focus group.

### **Data analysis**

The topic guide (Figure 1) served as an aid to analysing and interpreting the findings (Miles and Huberman 1994) both during and after collection (Morgan 1997, Lane et al 2001, Russell and Gregory 2003). Thematic analysis was used, whereby sections of transcripts relating to areas of the topic under study were collated, and then separated into sections and categories of concepts that assisted with interpretation (Krueger and Casey 2000). Investigator triangulation with three researchers was used to validate findings (Morgan 1997, Lane et al 2001, Russell and Gregory 2003).

The five earlier focus groups were analysed in-depth as a single unit and then the three later groups. It became clear that there was no new material in the later groups and hence the findings are presented together.

Field notes were used to ensure that the correct quotes were attributed to participants. Body language was noted and this demonstrated active engagement and agreement between participants.

### **FINDINGS**

Thirty-five people consented to participate (response rate 48%). There were 23 participants in the five focus groups in 2003 (n=7, 4, 4, 3, 5) and 12 (n=3, 5, 4) in the three focus groups in 2004. In total, 19 women and 16 men participated in the study. Nine participants attended the feedback session and a five written responses were

received to the feedback information. The average length of time living with diabetes for women was 4.6 years (range 1-13 years) and for men was 9.3 years (range 0.3-30 years). Five major themes were identified: impact of living with diabetes; understanding diabetes; drivers for organisational change; care in context; and individual concerns (Figure 2). These are presented in sequence.

### **Impact of Living with Diabetes**

Participants clearly verbalised the psychological impact of being diagnosed with diabetes. The worst part of living with diabetes was not only the initial realisation of the diagnosis:

*The doctor first of all diagnoses you as diabetic, you obviously think, oh, why me?*

However, having to assimilate all the information and change their lifestyle and eating habits was also difficult. The need for ongoing support was identified:

*The only thing I would say, particularly for people who are newly diagnosed, to ensure that they have accessibility to the expertise that is available.*

*You automatically get a shock, and you immediately think about needles and insulin... with advice, help and support you adjust to it.*

In all focus groups, the healthy eating advice advocated for people with type 2 diabetes was discussed at length as participants were keen to share experiences with each other. They also expressed confusion in relation to conflicting messages about healthy eating:

*I've cut my food that I usually eat. I eat a lot of fruit. I don't eat sweets.*

*It's just chocolate and cakes with me. It was really hard to give that up... I've cut it down but I have definitely not cut it out.*

The impact of diabetes on lifestyle was identified and people articulated issues concerned with diet, smoking, exercise and meeting clinical targets. Their responses to these were at times defined as 'cheating' and 'can't be bothered' and value judgements about not being a 'good diabetic':

*The thing that worried me most was when the doctor said to stop smoking. I thought that was going to be hardest thing of the lot. It wasn't.*

*Sometimes when you come and get the results, you think 'and I thought I had been awful bad'. You get a nice surprise.*

Participants identified the psychological burden of diabetes:

*You can get very depressed. You stick to a strict regime and your blood pressure has not gone down, diabetes counts not gone down, your weight has not gone down, I think you can get very, very depressed.*

The nature of self-managing diabetes has a degree of uncertainty and fragility associated with it:

*Diabetes is not something you can say 'I'll play around with'. It's a jigsaw which either fits together or it shatters into pieces.*

There was an element of pragmatism in responses:

*the older you are, you expect to get ill.*

*when your family has it, you more or less expect it to come anyway, it's no surprise to you.*

Participants identified others who had diabetes as role models for the impact diabetes has on health and wellbeing. They were learning from others as well as professionals about diabetes:

*Knowing about others who have complications due to diabetes leaves an impression on you...it focuses you.*

Individuals clearly articulated that they felt personal accountability and a lifetime commitment to self management of their own care:

*It dawns on you after quite a short time that you've got this for the rest of your life ... You've got to do something about it.*

*To me, it's just your health. It's the most important thing in your life.*

### **Understanding diabetes**

Formal education sessions provided by staff in the secondary care sector were highly valued, although due to the timing of meetings they were not accessible to people working office hours. Education sessions in the new service had not been fully established but were considered to be desirable, especially for those newly-diagnosed, although a degree of confusion in relation to self management was highlighted:

*For people being diagnosed now, I think the initial 6 months are the hardest, because there are times you really don't know what you should be doing.*

Peer support was seen to be desirable:

*We're pack animals and we gain a lot from each other when we talk to each other... We tell you what the practical implications of how it affected us.*



Participants articulated not only the need for education and information, but also the need to understand how to apply this knowledge in their own lives, as they found diabetes highly alarming:

*It's not a shortage of information, it's understanding it, the different aspects of it.*

*There's nothing worse than turning round and saying this is the dire consequences of diabetes... and your mind will just go boom. Whereas, if they can gradually do it and then if there's someone assessing how much you're taking in or how much you've been frightened of it, you know? It's terrifying.*

People who had experience of staff in secondary care spoke of the great value of having a named diabetes specialist nurse as the point of contact. Some ambiguity was expressed about who to contact in the new service, and a clear point of contact for information and expertise was desired to ask questions, receive answers and for assistance with integrating information into individuals' lives.

### **Drivers for organisational change**

Several practical aspects were identified by participants as being the drivers for the change in service delivery. It was thought that, due to the increased numbers of people diagnosed with diabetes, secondary care would not be able to cope with the number of people. Some thought that there was to be a reduction in hospital beds that would affect clinics. Healthcare finance was also an issue. At the same time as the service redesign there was a major redesign of hospital provision throughout GGHB, and so these concerns about hospital and secondary care provision were a real issue. The view was expressed that the driver for change was service improvement:

*I was told that it was moving into your surgery because it would give you a better service for anybody that is diabetic.*

### **Care in context**

Participants raised some issues in relation to their management in secondary care. They found the clinic process to be long, with periods of waiting to see various members of the healthcare team, and yet the medical consultation time was short and appeared to be rushed. They felt as if they were ‘*numbers*’ at the hospital and not ‘*people*’ and that there was a lack of continuity within professional groups at clinic visits:

*When you went to the hospital... you sat in a waiting room. And you went back and forward and back and forward. You’re talking a full morning or afternoon.*

*I think, when you go to the hospital, it’s just a face, with a name... they are only interested in one thing, and that’s what you’ve got, whether it’s diabetes or it’s something else, then that’s what they stick to. Never mind that they say, it’s just your diabetes that you are here for.*

*I dreaded it...(attending the hospital)... I hated it sometimes. I thought I am going to cancel, but I did go... and when I heard that I could come here (the GP surgery) I thought, ‘Marvellous’, and I came. You are treated like a person, not a number.*

Some even found the hospital environment frightening:

*A lot of people are frightened to go to the hospital, and would rather go to their own GP.*

However, the hospital service was perceived as specialised and up-to-date, and this was highly valued:

*I found the hospital very good...because they gave me a great deal of information and a lot of support to begin with at the annual checks... they are pretty up to date.*

For most participants, the hospital was a greater distance from home than their GP surgery, and this was viewed as an inconvenience that also lengthened the process of clinic attendance.

Within the new model of care, participants perceived healthcare staff as familiar and holistic in their approach, and they felt more able to ask questions and discuss concerns:

*They know me. It's on a more personal basis.*

*It's faces that you know and I feel quite relaxed and I feel I can ask her things.*

Various attitudes towards the change in service were evident, such as acceptance, cautious expectation, and also a positive outlook:

*As long as you are still getting the same service, I don't see why it should bother anybody.*

People not only expressed confidence in the primary care staff but also realised that they could be referred to specialists if necessary:

*I know they can refer me to the hospital if they're not sure about something.*

The new service was welcomed for its convenience, with smaller numbers present at the clinics and more time available to spend in consultation:

*It's obviously far more convenient...you don't have the numbers that you have at the hospital. Here... it just runs through.*

However, concerns were raised by some participants about the accessibility of expertise and information in the primary care setting:

*Just one concern I have was that... you feel that the hospital is a centre of expertise and you kind of worry a wee bit... other research is being done and when you go to the (hospital) you can say, 'What about that?' and you get a lot of input. I don't feel I would have that exchange here in the practice.*

These concerns were balanced by the knowledge that primary healthcare professionals had undergone further educational diabetes training in order to provide the new service:

*They are pretty well informed...out in the community.*

*I found the chiropodist and the dietician here wonderful. They have time to talk to you.*

### **Individual concerns**

Participants identified some specific concerns about the new service. They were aware that the number of people with diabetes was increasing. They valued the annual review of clinical parameters provided by the hospital and, while assured by their GPs that this would be maintained in the new service, they expressed concerns that this might become less frequent than annually due to the increasing numbers of people with diabetes. Some even wished for more than annual check ups:

*If you're moving it from a centre and you're offering what is perceived to be a better service... then you'll be looking for something more...more frequently rather than annually.*

They identified a gap in the new service. Previously, written information was provided in secondary care on their clinical results. Primary care staff did not provide this service, although individual results were relayed if people consulted their GP:

*You got a letter back from the hospital telling all of your results. You don't get that from the GP.*

People liked to compare their clinical results on an annual basis, and therefore found the lack of this information a deficiency of the new service.

They also discussed the need for more up-to-date information to assist with self-management and their consultations with staff:

*If you want to work in partnership with your doctor and control your own condition... then you want more up to date information.*

Participants articulated the need for a named person to whom they could address any queries, especially within the first six months of diagnosis.

### **Focus group interactions**

Participants actively engaged in the focus groups. The interactions in each group demonstrated knowledge transfer, supportive communications and confessions about poor health behaviours. Generally, these were laced with humour. A predominant theme was food and healthy eating. Occasionally participants asked the researchers for the 'correct' answer where there was conflicting information.

## **DISCUSSION**

This study was conducted in one of 15 LHCCs and there was a response rate of 48%. Thus, although the findings may not be generalisable, there was a range of

participants with different lengths of experience of living with diabetes and also varying experience of the new service. It is also acknowledged that it is usually the more motivated people who participate in focus groups.

In this study we set out to examine the experience of living with diabetes within the context of a new service design. For the purposes of the discussion, these two entities are considered separately while it is acknowledged that there is an inter-relationship between the two areas.

### **Perceptions of the new service**

Participants were aware of the need for the changes in service delivery and perceived them to be beneficial. They preferred their management within the primary care context and the close working relationships with staff whom they knew and who also knew them. This supports previous findings that a stable doctor-patient relationship may improve quality of life issues, but this needs to be further researched (Hanninen et al 2001). Negelkerk et al (2006) identified a collaborative relationship between the person providing the service and those receiving care as enhancing self-management of diabetes. Our findings were similar, although people wished for more information about diabetes to allow them to enhance their participation further.

In primary health care, people can initiate appointments with their GPs according to their own perceived needs. Participants made reference to their other chronic conditions for which they attended the primary health care centre, and hence had a platform where they could access advice and information on a variety of health-related issues, of which diabetes might be one. It is known that people with chronic conditions are higher service users due to multiple morbidity (Fortin et al 2006).

Previous studies have shown similarly good clinical outcomes achieved by secondary care, but people's experiences of the primary care service has not been fully recorded previously (Griffin & Kinmonth 2005). Lindsay et al (2006) have shown some statistically significant improvements in clinical outcomes in people being cared for under this new service redesign.

Findings for the early stage of the new service were confirmed by those with two years' experience. One reason for this could be that, as people received only an annual review for diabetes, their experience of the new service was fairly limited and so they had reduced opportunities to make comparisons. However, some people had been attending secondary care for almost 30 years, and they concurred about the advantages of the new service. In discussion, a key factor was the confidence of participants in the primary care professionals who had undergone additional educational preparation. They also had confidence that they could still be referred to secondary care if clinical issues were beyond the scope of the primary health care team. Consensus between all groups, while being an unexpected finding, probably demonstrates their confidence in the healthcare team developed in the service redesign. There appeared to be greater definition of roles between generalists and specialists that went some way to addressing the concerns of Starfield (2005) in managing people with co-morbidities.

Despite preferring holistic care within primary care, individuals stated that they wished to have a named person to contact with any questions or concerns. Those who had been cared for in secondary care and had now transferred to primary care would previously have been able to phone a Diabetes Specialist Nurse for information and advice. Each GP surgery had a different way of handling patient enquiries, and this

lack of direction and focus was perceived as a deficit in the new service. Equally, the lack of written information on clinical results was seen as a deficit. People requested that they be given a written record of their clinical results for their own information. This would allow people to take responsibility to manage their own illness and concurs with the finding of Hornsted et al (2004) that 'responsibility for care' was an important dimension of living with diabetes.

Participants were aware of the rising incidence of diabetes and were concerned about how the services could sustain annual reviews. Workforce development and redesign needs to consider increasing demands for services and factor these into future projections of staffing requirements, although it is acknowledged that this is challenging and complex (House of Commons Health Committee 2007).

### **Experiences of living with diabetes**

A diagnosis of diabetes, while being a shock for individuals, was also expected where there was a strong family history of diabetes. Individuals expected some ill health with advancing years, which is in agreement with Hornsten et al's (2004) category of 'image of the disease'. However, as type 2 diabetes is now being diagnosed in younger people than previously due to rising obesity levels, the psychological impact of the diagnosis might be different in younger age groups.

Every participant was emphatic that they were in control and in charge of their diabetes, which Hornsten et al (2004) categorised as the 'responsibility for care' that was an important component of understanding the condition among people with type 2 diabetes. As our participants were volunteers, they may have been those who were more motivated also in their diabetes management. However, it is also known that



people volunteer for studies for a variety of reasons that may have no bearing on their own health (Tolmie et al 2004).

Participants felt in control of their diabetes but wanted more assistance with gaining knowledge, understanding and then applying this to their own lives. At the time of the study, formal education and support sessions were limited within primary care. Those participants who had experienced group educational sessions reported the importance of peer support, although the efficacy of this across groups with chronic diseases is conflicting (Doull et al 2005). Those who had experienced a short series of education sessions in secondary care spoke very highly of them, but these were no longer available in the new service delivery system.

There are currently several professional-led educational models being used and evaluated in diabetes care (Davies et al 2008, Coates and Chaney 2007). Group-based education has shown improved clinical parameters, although more studies are needed to confirm this (Deakin et al 2005). The implementation of a group, structured educational programme is therefore a recommendation emerging from the present study.

Type 2 diabetes is a complex and multifaceted condition to self-manage and presents individuals with many challenges (Whittemore et al 2002). Because the mainstay of management is diet, it was not surprising that the focus groups often diverted into discussing this at great length. The ambiguities around healthy eating and the predominance on the topic of food indicated that this is a major element in the lives of people with diabetes. West & McDowell (2002) had similar results in their quantitative study. Lifestyle management is a daily, relentless, arduous and enduring commitment for individuals with type 2 diabetes (Hornsten et al 2004). Furthermore,

diabetes is associated with twice the incidence of depression than in the general population (Anderson et al 2001, Brown et al 2007), and participants articulated the psychological impact of the diagnosis of diabetes as well as the requirement for daily self-management.

## **CONCLUSION**

We recommend that people with type 2 diabetes are given a personalised written report of their clinical results and the targets for which to aim. We also recommend that structured educational programmes are made available to all with type 2 diabetes. A follow-up study should be undertaken now that the service is established to ensure that the early positive changes around the transition period are maintained.

## **Conflict of interest**

None.

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## **Figure 1: Topic Guide for Focus groups**

### *Introduction*

Setting the scene, practical aspects, ongoing consent how data to be handled.

### *About the person*

On average, how long have you had diabetes?

When you were first diagnosed, who looked after you?

In ongoing caring for yourself with diabetes – who looks after you?

How have you managed?

How has diabetes impacted on your life, including social life?

Do you feel healthy?

### *About the service changes*

What do you know about the service redesign?

What do you think has prompted this?

How do you perceive the new system?

How would you compare the new service with the previous service?

What is your health needs now?

How could your care be improved?

What are your expectations of care for the future?

### *Closure*

Thank participants

## **Figure 2: Thematic analysis of findings**

### Living with diabetes

Attitudes to diabetes

Lifestyle

Responsibility for care

### Understanding diabetes

Education

Information

Application

### Drivers for organisational change

Practical

Better service

### Care in context

Secondary

Specialist with single focus

Long, rushed, impersonal process

Geographical distance

Primary

Holistic, personal and general focus

Efficient

Convenient geographically

Confidence in referral

### People's concerns

Personal feedback

Annual review

Understanding of diabetes

Named person