

**Consultations between nurse prescribers and patients with diabetes in primary care: a qualitative study of patient views**

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**Abstract** (350 words)

*Background:* There is a drive to improve the quality of service provision for patients with diabetes and to enable better self-management of this condition. The adoption of prescribing by nurses is increasing worldwide and can potentially enhance service provision. Evidence suggests that patients prefer services where their lifestyle factors and opinions are considered by healthcare professionals within a partnership approach. Few studies have explored patients' views about their consultations with a nurse prescriber.

*Objective:* To explore the views patients with diabetes have about their consultations with nurse prescribers and any impact this may have on their medications management.

*Design:* A qualitative study involving semi-structured interviews and thematic analysis.

*Setting:* Six primary care sites in which nurses prescribed medications for patients with diabetes in England. Data was collected in 2009.

*Participants:* Interviews took place with 41 patients with diabetes from the case loads of 7 nurse prescribers.

*Results:* Findings are reported under three themes; the nurse consultation style, benefits of the nurse prescriber consultation and views on involvement and decision-making. Key aspects of the nurse consultation style were a non-hurried approach, care and rapport, approachability, continuity, and providing clear information based on specialist knowledge. Many benefits were described, including improved access to appropriate advice and medication, greater understanding and ability to self-manage, ability to address problems and improved confidence, trust and wellbeing. While patients were happy with the amount of information received and involvement they had decisions about their treatment, there was some controversy over the consistency of information provided on side-effects of treatment.

*Conclusions:* The study provides new knowledge about what patients with diabetes value and benefit from in respect to care provided by nurse prescribers. Continuity of relationship, flexibility over consultation length, nurses' interpersonal skills and specialist diabetes knowledge were identified as crucial to good quality care. Patients require that nurse prescribers are skilled in providing a person-centred approach and have access to specialist training. The level of information and involvement offered to patients should reflect patients' requirements.

**Keywords:**

Consultation, Diabetes, Nurse prescribing, patient-centred care, patient views

**What is already known about the topic?**

- Patients with diabetes have a preference for person-centred approaches to care and there is evidence that this can improve health outcomes
- The number of nurses qualified to prescribe for patients with diabetes is increasing
- Nurse prescribing has the potential to improve care but little is known about patients' views on this in relation to diabetes care

**What this paper adds**

- This study confirms that patients with diabetes prefer a person-centred approach to care and that nurses practice many person-centred principles when prescribing
- Patients described benefits to consultations with a nurse prescriber that are consistent with existing literature on nurse prescribing and person-centred care
- The study demonstrates that nurse prescribing can contribute to improving care for patients with diabetes

## **1. Introduction**

The prevalence of diabetes is increasing worldwide (Wild et al. 2004). In response to increasing demand, there is a drive to improve the efficiency and quality of services for people with diabetes (DoH 2003, Audit Commission 2000, International Diabetes Federation 2005). Empowering patients to self-manage their condition is considered central to good quality diabetes care. In order to empower patients, guidance calls for a greater focus on individual support and collaboration with patients, improved provision of information to patients and better service continuity (International Diabetes Federation 2005, Roberts 2007). This move towards a more patient-centred focus with increased patient participation in health care has been the goal of many national and international health policies (Thompson 2007, Bolster and Manias 2010). This is backed by evidence about what people want from health services and by growing evidence that involving patients in decisions about their healthcare can improve health outcomes (Greenfield et al. 1988, DoH 2004).

Increasingly, care for the majority of patients with diabetes is managed within primary care where patients are seen primarily by General Practitioners (GPs, i.e. doctors based in community practices) and nurses (Audit Commission, 2000). The core values of both nurses and GPs have been based upon bio-psycho-social or holistic models of care whereby aspects of patients' lifestyle and thinking are considered alongside biological factors when reaching care decisions (Hardey 1998, Howie et al. 2004). In addition, both professions value the need to identify and respect patients' priorities when reaching care decisions. These values are considered conducive to promoting patient-centred principles in practice (Howie et al. 2004), however, the extent these principles are demonstrated by health professionals varies (Stewart 2001). In relation to diabetes care, there is some evidence that patients consider nurses as more adept at, and more often practicing, patient-centred principles than doctors (Audit Commission 2000). A qualitative study of service user and carers' views of NHS diabetes services (Hiscock et al. 2001), found that learning about diabetes was an interactive and ongoing process for patients. The approach of the health professional was crucial to this process, with preference for holistic

principles of friendliness, equality, a partnership approach to treatment, a willingness to discuss and answer questions and account for differences in lifestyle. In general, nurses were seen as more accessible and more often practicing these principles than doctors.

It is recognised that nurses contribute to supporting patients in managing their diabetes with nurse's role being patient education and promotion of self-care (Peters et al. 2001, Carey and Courtenay 2007a). In addition, nurses are increasingly involved in medications management and prescribing for patients with diabetes (James et al. 2009). The numbers of countries in which nurses can prescribe is increasing, although there is great variation in the extent of prescriptive authority within and between countries (Ball 2009). Long term conditions, such as diabetes, have been selected as suitable conditions for which nurses can prescribe in a number of countries, including the UK, Ireland, Netherlands and Canada (Ball, 2009). The main aims of introducing nurse prescribing in the UK were to improve patient care and access to medications, increase patient choice, make better use of the skills of healthcare professionals and contribute to more flexible team working (DoH 2006). Approximately 18,000 nurses in the UK have qualified as Nurse Independent Prescribers (NIP) and, as such, are able to independently assess, diagnose and prescribe products for patients within their area of competence. Surveys indicate that around a third of these nurses prescribe for patients with diabetes (Carey and Courtenay 2007b, Courtenay and Gordon 2009).

Fears have been voiced that patient-centred principles may be threatened when nurses adopt prescribing (Tye and Ross 2000, Bradley et al. 2008). However, a review of substitution of doctors by nurses in primary care found patient outcomes remained similar with higher patient satisfaction for nurse-led care (Laurant et al. 2004). Research on the influence of prescribing on nursing roles indicates that nurses who prescribe for patients with diabetes strive to maintain a patient-centred focus to consultations and claim that prescribing brings additional benefits to patients (Stenner et al. 2010a). In this study, Stenner et al. (2010a) report that stakeholders (doctors, nurses and administrators) thought patients regarded nurses as more approachable and friendly in general than doctors and that nurses tended to give clear and understandable explanations to patients.

These nurse prescribers regarded their use of a holistic patient centred approach as promoting greater opportunity for discussion and patient involvement.

Despite claims that nurses follow patient-centred principles, the extent to which nurses involve patients in decisions about their treatment has been questioned (Bolster and Manias 2010, Stevenson et al. 2004). Two mixed method case studies of nurse prescribing (Courtenay et al. 2009a, Latter et al. 2007) report inconsistencies during observations of nurse-patient consultations in the extent to which nurses provided information about side-effects and the risks and benefits of treatment options. The authors argue that these are necessary prerequisites for informed choice. A similar multi-method study was conducted on nurse prescribing for patients with diabetes (Courtenay et al. 2009b) . Findings that the majority of patients highly rated all aspects of nurse communication, such as: listening, showing concern, explaining condition or treatment, giving information about medications and answering queries were congruent with previous work (Courtenay et al. 2009a, Latter et al. 2007). In observations of videotaped consultations, nurses consistently demonstrated use of listening skills, were sensitive to patient concerns, planned for future needs and provided instructions to patients about their medication. Nurses were observed to encourage informed choice in around 70% of consultations, but there were discrepancies in the extent that nurses were observed to provide information on risks, benefits and side-effects. The study did not, however, seek to explore the views of patients.

Where patients' views and opinions of nurse prescribing have been elicited, the majority of patients have been accepting of and confident to take medications prescribed by a nurse (Page et al. 2008, Wix 2007, Jones et al. 2007, Brooks et al. 2001). A number of studies point to nurses' interpersonal skills as being pivotal to positive evaluations of nurse prescribing by patients. Of particular importance are nurses' approachability, empathy, understanding, tendency to treat patients as individuals, and ability to provide clear information (Luker et al. 1997, Page et al. 2008, Brooks et al. 2001).

We are not aware of any studies that have sought the views of patients with diabetes about nurse prescribing. Given the importance placed on the patient-centred approach and on matching services to patient requirements, exploring patients' views on nurse prescribing and any impact on care is essential if we are to better understand how to improve care.

### *1.1 Aim*

The aim of the study was to explore nurse prescribing from the point of view of patients with diabetes. The main objective being to explore patients' views about their consultations with a nurse prescriber and any impact of this on medications management. Findings relating to patients' opinions about nurse prescribing in relation to diabetes are reported elsewhere (Courtenay 2010).

## **2. Method**

### *2.1 Design and setting*

This was a qualitative study using semi-structured interviews to explore the views of patients with diabetes under the care of a diabetes nurse prescriber. Patients were recruited from the case-load of 7 nurse prescribers. In the UK, the majority of patients with diabetes are seen in primary care and likewise the majority of diabetes nurse prescribers are based in primary care settings (Carey and Courtenay 2007b). The chosen sites reflected the key settings in which nurses typically prescribe for patients with diabetes within primary care. Sites were in different locations across England (Greater London, the Midlands, Berkshire or Lincolnshire).

### *2.2 Participants*

Nurses were recruited via a network of diabetes nurse prescribers. All nurses had specialist knowledge in diabetes, were qualified and practicing as Nurse Independent Prescribers within general practice (5) or community clinics (2). An information sheet and invitation letter was sent to 10-15 patients by each nurse to give patients time to decide whether to participate. Those interested (57%) contacted the researcher to arrange

an interview. Selection criteria included those aged 16 and above with type I or type II diabetes who had been prescribed medication by the nurse. A total of 41 patients were recruited. Consent was obtained before each interview and procedures to protect confidentiality (such as removing identifiable information from transcripts) explained.

### *2.3 Data collection*

Semi-structured interviews, lasting from 30-40 minutes, were conducted and audio-recorded by one of two (KS, TH) experienced qualitative researchers with no relationship to research participants. Interviews took place in the clinic setting that patients usually attended. The interview schedule covered background information, views and experience of nurse prescribing, information about medications management, aspects of the relationship with the nurse prescriber and views on involvement in healthcare decisions. Data collection took place from January and June 2009. Patients were offered £10 towards expenses.

### *2.4 Data analysis and rigor*

A thematic analysis was conducted on the data, as described by Braun and Clark (2006). Transcripts were systematically coded with the aid of computer software for qualitative analysis (ATLAS Ti). Where meaningful similarities were observed, codes were grouped together and data extracts from each group or category collected to identify potential themes. Themes were reviewed and refined (Braun and Clark 2006) by a process of cross-checking against data extracts in order to account for areas of agreement and disagreement. Finally, by relating back to the research questions, a thematic map of themes and sub-themes was generated.

Trustworthiness of the analysis was enhanced by the independent assessment of a selection of 10 interviews coded by a second researcher (NC). Data saturation was evident at this point. A high degree of agreement was achieved and minor differences in code titles were discussed and agreed between researchers. Although findings were not verified with patients, they were reported to be valid when presented to nurse prescribers at a diabetes network meeting.

## 2.6 *Ethical considerations*

Ethical approval for the study was obtained from both University and NHS ethics committees and Research and Development approval obtained in each Primary Care Trust.

## 3. **Findings**

Participants had a mean age of 67 years, ranging from 37 to 87 years, 63.4% (n=26) were male, 36.6% (n=15) female, 83% (n=34) were white British and 17% (n=7) of ethnic minority background. Average time since diagnosis was 9 years 8 months, ranging from 9 months to 39 years. Most (n=39, 95%) had type 2 diabetes, 2 (4.8%) had type 1 diabetes. The length of time with the current diabetes nurse varied from being the first visit (n=2, 4.9%), 2-4 visits within a year (n=14, 34%), multiple visits over 1-4 years (n=7, 17%) and multiple visit over 5 or more years (n=18, 44%).

The findings are discussed under three main themes; description of the nurse consultation style, benefits of the nurse prescriber consultation and views on involvement and decision-making. Each theme is explored through a number of sub-themes and main points are illustrated by anonymous quotations followed by codes in brackets that indicate the nurse number (GP = general practice based nurse, CC = community clinic nurse) and patient number (p = patient).

### 3.1 *Nurse consultation style*

This theme relays how patients described consultations with the nurse prescriber and various doctors that they had seen. There was considerable overlap and interaction between the following sub themes. Patients often spontaneously compared consultation experiences with the nurse and doctors.

### *3.1.1 Non-hurried consultation*

According to patients, nurses projected a non-hurried attitude and were flexible in providing more time if it was required when prescribing. This allowed for a thorough consultation, with time for detailed explanation and discussion. Patients felt they had more time during consultations with the nurse than they would with a doctor.

“She never rushes you out the door; she is always prepared to listen to you, yes. And even if you turn round and say, look I don’t really understand this can you explain a little bit more, she ain’t like looking at the watch going I’ve got another client, you’ve got to get out. She will sit there and explain it all to you.” (GP6p7)

### *3.1.2 Care and rapport*

The nurses were said to listen to and show a genuine interest in patients. All were described as positive, friendly and good at establishing rapport. A personal approach was important to patients because it made them feel cared for and was an indicator to patients of a good quality service. Consultations were often interactive, with nurses offering suggestions about treatment options and inviting discussion.

“A fortnight before I come in I have all the blood tests done, and we go through those, what’s wrong, what’s right and we just talk about it. I think that is great because you are being treated as an individual and not as one of a number and I think if you are going to get nurses, or even doctors, prescribing you shouldn’t be one of a number, it should be personal.” N2p3

### *3.1.3 Continuity*

The importance of continuity (seeing the same nurse over time) was stressed by almost all patients. Continuity enabled a more personal relationship to develop, reduced repetition of information, increased mutual understanding, helped patients feel at ease and increased their confidence in the nurse.

“I think you can build up a better rapport and you feel better seeing just the one person. As I say you can build up a trust that person which is much better.” (GP5p2)

### *3.1.4 Approachability*

The nurses were described as more approachable than doctors, partly because of their style and partly because of their perceived status and role. Patients were more willing to contact a nurse than a doctor and this was encouraged by many nurses through offering advice by telephone.

“They (nurse and doctor) have got very different roles really, and I accept that Dr. X has very different responsibilities and therefore I would never presume to ring Dr. X up, whereas I feel quite comfortable ringing [NP5] up, because I know Dr. X’s commitments and so on.” (GP5p6)

### *3.1.5 Clear and understandable information*

Patients were happy with the amount of information provided by nurses and found this clear and understandable. Many commented that the nurse provided ample information and advice, both verbally and in writing. Nurses were compared to some doctors as being more patient in offering explanations for conditions and treatment, providing more detailed information and being better at communicating this information. The quality of explanation and information was said to be enhanced by the nurses’ specialist knowledge and experience in diabetes, and because the nurse was able to take into account the patients history and personality.

“Well I think a doctor would explain to you, but I don’t think a doctor’s explanation is as good as somebody who is taking care of you all the time, and actually telling you how things are working. Yes, I’ve got a good doctor and he’s really lovely he really is and he does explain things to you, but as far as my diabetes is concerned, [NP6] is the person. And she does talk to you, which is what you want. They make you feel at ease with it and they have the right way of explaining it.” (GP6p6)

It was not necessarily the length of consultation that determined the quality of explanation but the nurses’ approach and ability to communicate clearly to patients.

“She really is a lovely lady. She’s got time for you. That doesn’t mean to say that she spends a whole hour just with one patient, but even in that five minutes she gets her point over across to you.” (GP6p2)

### *3.1.6 Specialist diabetes knowledge and experience*

Nurses were generally considered more knowledgeable about diabetes and its treatment than doctors with no special interest in diabetes. This was as a result of nurses' specialist training and their first hand experience in regularly treating and managing patients with diabetes.

“It's like a specialist in any sphere - a nurse trained to on the diabetics side is fine because they are seeing those patients all day everyday so I think they get far more knowledge working on a specific subject than as a general practitioner, who has to be good at most things, or try to identify most things.” (GP5p9)

“I know for a fact that she goes to lots of training courses so she knows more about diabetes than a general practitioner might know.” (GP2p5)

### *3.1.7 Broad consultation*

Nurse consultations were described as less narrowly focused than doctor consultations, with nurses more often enquiring about other illnesses or conditions and broader aspects of health and lifestyle. This was often reported by patients of nurses in general practice where relationships tended to develop over time.

“If you go to the doctor it is solely on the area what you want to talk about, but with NP you can talk about the broad spectrum of it and she will throw things in like ‘How much insulin are you taking at the moment?’ and ‘What tablets are you on?’” n2p5

## *3.2 Benefits of nurse prescriber consultations*

This theme explores how the aspects of the nurse prescriber consultation style described above combined in a way that patients described as beneficial.

### *3.2.1 Asking questions and solving problems*

The broad and unhurried consultation style and friendly, caring approach helped patients to feel comfortable expressing themselves, thus enabling the nurse to gain a good understanding of the patients' condition and lifestyle.

“She knows all about you and I can be open with her because it’s a face I know. If there was personal things or anything like, you know, when you get to know somebody you can talk to somebody can’t you?” (GP5p8)

Continuity of nurse-patient relationships enhanced this further; patients’ were more able to ask the nurse questions they perceived as trivial, and to be honest and open about their lifestyle. This was said to have a direct impact on the way patients managed their condition because they were more likely to raise concerns and find solutions to problems.

“I think it does have an effect on your health because if we took something like the Statins - I was on Sinvastatin and it caused a few problems. The fact that I could sit and talk to NP about the problems, they weren’t major problems, maybe a cough and that sort of thing, and she said well lets try this one...not ‘you will’, there was no prescription writing, it was ‘would you like to try it?’ And we monitored it and she’d ask questions, does it suit you and all that - so that was quite a good benefit. As I say, the relationship between a NP and yourself is different to what you get with a doctor and yourself. With the doctor it is more straightforward, on a professional basis, and with a nurse practitioner it’s a relationship that builds up over the years.” (GP2p5)

### *3.2.2 Access to advice and treatment*

The approachability and accessibility of the nurse, aided by telephone contact, made it easier for patients to contact a nurse for non-routine advice or appointments, thus improving access to advice and treatment.

“It’s a lot easier –if I just realised I’d run out of insulin or something, if I rang the doctor now there’s no way he would see me until Monday morning unless it is a real emergency. If when you see the nurse and you speak and then you’re prescribed it there and then. It saves time.” (CC3p5)

The tendency of nurses in general practice to enquire about and monitor other illnesses resulted in holistic care. These nurses sometimes prescribed medications for diabetic co-morbidities or other conditions, which was reported to be convenient and time saving for patients.

“I get these terrible itchy legs with the diabetes and she cured that. Took her a while to do it trying out different drugs but she eventually came up with the right combination and she cured it.” (GP6p1)

### 3.2.3 *Improved understanding*

By having more time for discussion, being able to ask questions and being given explanations that they could understand, patients said they developed a greater understanding of their condition and how to manage it.

“She explained a lot of things that to be quite honest I didn’t really realize. Then she showed me a pattern of what the insulin was doing and what the new insulin would do and how it would be beneficial to me. She went through it step-by-step and she explained a lot, and she drew little diagrams you know, an idiot proof kind of thing so you understand it.” (CC3p5)

Improvements to self-management occurred through a relationship between the nurse and patient whereby the two worked together to find solutions to problems as they arose.

“I think she has got the time to sit down and talk to me, whereas some people like my first doctor will say ‘What can I do for you?’ and I say ‘my sugar levels are going up’ ‘Oh well just add more insulin OK. See you next time’. You know, didn’t turn round and say you shouldn’t be eating this or you should be eating that. As I say, with NP I can sit down and talk to her and have a good conversation.” (CC3p4)

### 3.2.4 *Advice and treatment that fits the patient*

Information, advice and treatment given by the nurse prescriber were described as tailored to meet the individual needs of patients. Aspects of patients’ lifestyle, treatment difficulties or preferences, and patients own health goals were reported to be acknowledged by nurses when giving advice or prescribing treatment.

“It is as though it’s been tailored for you rather than.... I mean the last time I asked for a prescription at my GP he just spoke to his computer and referred me to someone at X Hospital and I said ‘what does that mean?’ and he said well you’ll get a letter from Hospital. He didn’t actually ask me what.....and next thing I know he is just talking to the computer and referring a letter through the computer to someone at the surgery. At least here you sit down face-to-face and any concerns, any reservations I have got, because stupid as it sounds I’m scared stiff of needles.” (CC4p1)

Individualised advice and treatment was particularly important for patients on insulin treatment who were learning to balance their insulin dose, diet and exercise. Nurses spent time with patients to help them understand and gain confidence in matching insulin treatment to their particular lifestyle or work situation.

“Basically she learned me how to do my insulin, because of my levels, my blood sugar levels. She taught me that I had to increase my insulin by like two units each time to try and reduce the blood sugars down, the average of the blood sugars. A lot of it, she made me realize, was my diet as well.” ‘n6p2

For some patients, their attitude towards and understanding diabetes changed over time and, with the help of the nurse, patients were better able to adapt to changes in lifestyle and achieve realistic and achievable treatment regimes.

“I just got complacent and thought ‘I know more than they do, they won’t see what I’m doing once I get home’, but she [NP] actually explained it to me in lay man’s terms to actually make me understand it. Which I’d probably never had before. I thought GPs, Sisters and nurses were always quite serious about it, they didn’t look at it in lay man’s terms. If you do have it, you are not going to live by the diabetic book every day of your life. You’re not going to say you are never going to eat a bar of chocolate. Whereas when I came here she explained it to me that eating a bar of chocolate has the same carbohydrate value as three potatoes, or a carton of orange juice. So they made me actually - they were approaching it from my point of view so that I would take it on board.” (CC4p1)

### *3.2.5 Up-to-date treatment and advice*

Patients felt that the nurses’ specialist knowledge in diabetes meant they were more able than a non-specialist to offer current information, viable treatment options and, in some cases, new treatments.

“Without being unkind to the doctors, the diabetic nurse seems more informative than what the doctor does. You see going back to this problem with the painful injections, when I first went to the doctor he was, ‘Well err, I don’t’ you know? ‘What can we try?’ and I said ‘could we try some more needles, different needles?’ and he said ‘why do you think that would work?’ and I thought, you know, ‘just give me a chance!’ But if I said to NP the diabetic nurse, ‘do you think

we could try some new needles?’ she’d say ‘well yes but I don’t think that will work, why don’t we try this’. She listens and she’s got it up here [in memory].” (CC3p1)

For some, the nurse was quicker than non-specialists in identifying problems and more proactive in offering help and solutions to patients.

“If it wasn’t for this nurse I would still be feeling terrible. Once they’d sorted my thyroid out I was perfectly all right, but if our NP here had listened to our doctor I would have been on insulin and still feeling ill. So, not being nasty, she really does know more about diabetes than what the doctors do. She’s been absolutely fantastic.” (GP6p1)

### 3.2.6 *Confidence and trust*

Patients’ were confident in the nurses’ ability to prescribe and make treatment decisions. This confidence was gained through the development of a mutual trusting relationship, the nurses’ specialist knowledge and experience in diabetes and their thorough approach to consultations. Confidence was also gained through direct experience of benefiting from the nurses care, in particular where the nurse had identified problems missed by a doctor, as in the quote above. In addition, nurses’ awareness of their own limitations when diagnosing or prescribing, and their continued communication with doctors over prescribing decisions inspired confidence.

“I am confident, because it [medication] didn’t upset my metabolism at all, it suited me, because they used to tell me that in the night I should be very careful because if the blood sugar goes down ....it is very dangerous, and that explanation and everything was given to me by the Diabetic Nurse not by the doctor or the Consultant.” (GP1p5)

Continuity of relationship with the nurse made it easier to work towards managing diabetes and saved time in repeating details about medical history, medications regimes or lifestyle considerations. Seeing the same person also helped improve consistence and ability to understand information.

“You see different ones you get a different - it’s the same story but they are telling it a different way round and you get confusing. But if you see the same one it’s continuation then.” (CC4p4)

### 3.2.7 *Reciprocation and control*

By showing an interest in the well-being of the patient, nurses encouraged patients to engage or become more involved in improving their health. Patients felt more inclined to reciprocate or work with the nurse prescriber to set and meet targets to improve their health.

“I feel satisfied in myself and happy. I genuinely feel wellbeing in myself because she makes me feel like that. You know she makes me feel as though I have achieved something. She’s is giving me something, but I’m giving her something back. I quite like that, I feel good about myself.” (GP6p2)

It also had a therapeutic affect on some patients, helping them to feel better and more satisfied with the care they received.

“I think the interface between patient and nurse or doctor is quite important - to have a relaxed feeling as though it’s doing you a benefit. They are not interrogating you because they have got to do a job or they have tick boxes they have got to fill. So, it is interest in you as a patient and interest in their jobs.” (GP5p9)

Patients also described a therapeutic aspect to being involved in decisions about their care as it helped them to feel in control.

“It makes me feel happy that I am in control of what I want to do. They can make suggestions on what I tell them, but it’s not written in stone that I am saying you will do, or have, this. I have an involvement in what I do.” (GP6p2)

“The more questions I have, the more answers I have, the better I understand the problem and the better I can, in effect, look after myself. A family doctor would never ever find the time or patience to explain to me the ‘ifs, buts, whereas and wherefores’ of diabetes that nurse X has.” (GP1p1)

### 3.3 *Views on involvement in decision-making*

While patients were happy with how much the nurse had involved them in treatment decisions, the extent of desired and reported involvement varied between individuals and within individual cases for different episodes of care. For example, one patient felt they

had little choice over the need for insulin treatment, although they could choose their insulin pen. In contrast, the following patient with type 2 diabetes described ongoing involvement with the nurse to try alternatives to insulin treatment, which helped prepare them for the eventual need for insulin:

“I have always had tremendous confidence in [NP] because whenever we have met here the discussion has always been very open and up front. It’s a discussion between two adults and we are both looking at this issue to see how it can be resolved. And to come in and discuss it with [NP], for her to look at the various options and then between us to say well ‘No, these have been tried’ and we would then agree there is no alternative ‘We are going to have to look at insulin. How do you feel about that?’ Well I knew that was inevitable. At some point I’ve got to go onto insulin. Fine, if that’s what it is now, let’s try it and so then [NP] organised it all.” (GP5p6)

Aspects of the nurse consultation that patients described as important for feeling involved included: provision of information and a rationale for new treatment, the opportunity to ask questions and being asked if they were happy with a suggested treatment option.

“Everybody has explained as they’ve gone along, and if they have changed anything they have explained why, which is important. Not just said ‘do this’ or ‘do that’, they suggest you do this and explain why, which is fair enough to me.” (CC4p4)

Desire for information also varied. There was a greater need for information during transition periods, such as when starting new treatment regimes, when patients wanted to know why they were being offered a particular treatment and possible side-effects. Some asked the nurse many questions and sought information from other sources, believing that that the more they understood, the better they would be able to self-manage or control their condition.

“I have never been afraid to ask things - some patients will probably sit and just be told and get out as quickly as they can. I try to take control of my conditions in the way of managing them, understanding them. So I do actively seek information because I do think I can make a difference by controlling it rather than letting it control me.” (GP5p9)

Other patients did not seek out information, preferring to trust professional opinion.

“I take what I have been told. I don’t go and look it up. Because you go and look things up...you’re not qualified anyway.” (CC4p2)

Regardless of the level of information patients wanted, when it came to making decisions about treatment, most preferred the nurse to use their professional judgement to offer the best treatment option for them.

“I would like to contribute from the point of view of having the opportunity to ask questions and get answers, but I would not place myself in the position of if the surgery says you are supposed to take drug A - I would not like to say drug A is not right for me, I want to take drug B. It’s very simple, I am dealing with qualified doctors and nurses and they know more about my health than I do myself.” (GP1p1)

“I don’t want no say in it at all. If they say you got to go on it, you’ve got to go on it.” (GP5p8)

Importantly, if patients disagreed with a treatment offered by the nurse, they felt able to say so.

“I can talk to her about anything and I can turn round to her and say I don’t think this works or that works.” (GP6p7)

### *3.3.1 Extent of information on side effects*

One area where there was inconsistency was the extent to which patients received information on side effects of medication, such as metformin. While many recalled being given this information by the nurse, the impression given by some was that normal practice (both for nurse prescribers and doctors) was to give a brief description of the common side-effects of the medication, with the expectation that patients’ would return if they experienced side-effects.

“Even though you get a leaflet with all the tablets, she also tried to tell you the pitfalls of taking the medication as well. She explains the bits and pieces like that. Not saying she goes into every one, because when you look at the list its like [indicating a long list]. But she goes into the common ones. Yes.” (GP6p7)

It was common for patients to read the information leaflet provided with new medication for side-effects and possible contraindications.

Even though they prescribe it to me, when I get it home I always look through all the leaflet before I take it.” (GP1p3)

For patients who had been on the same medication for a number of years (often initiated by a doctor) it was difficult to recall clearly what information had been provided to them, and they did not expect to receive such information each time they were prescribed the same medication. However, there were some patients who were unsure or thought this had not occurred.

“No she has never told me anything about side effects, and I have never asked her and I have been taking the same tablets for years and years, so ...I don't know if there is any side effects. I don't feel any side effects.” (GP1p4)

#### **4. Discussion**

This is an important first study to explore the views of patients with diabetes about their relationships with a nurse prescriber. The way patients described these consultations demonstrates that nurse prescribers can and do adopt principles of patient-centred care and this was beneficial to patients. The benefits imply greater concordance over treatment decisions, which theoretically should improve treatment adherence and ultimately health outcomes in line with guidance on services for patients with diabetes (DoH 2003).

The description of the nurse prescriber consultation corresponds in many ways to a framework of person-centred nursing (McCormack and McCance 2006) which outlines similar processes of; accounting for beliefs and values, engaging, a sympathetic presence, shared-decision making and providing for physical needs. Likewise, the framework predicts outcomes similar to those noted by patients, under the headings ‘increased satisfaction with care’, ‘involvement in care’, ‘feeling of wellbeing’ and a ‘therapeutic environment’. However, our study identifies the following additional benefits: improved

understanding of treatment and condition, improved self-care, better access to medications, access to current advice and treatment, holistic care, individualised treatment and advice, and increased confidence in treatment. It is therefore likely that these benefits can be attributed to the combining of a person-centred approach with additional knowledge and abilities arising from nurse prescribing. Indeed, the findings match those of previous research (Courtenay et al. 2009b, Stenner et al. 2010a), indicating an alignment of opinion between patients and healthcare professionals involved in diabetes services about the benefits of nurse prescribing.

A number of these benefits, such as improved access to medications and greater holistic care have previously been attributed by patients as benefits of nurse prescribing (Page et al. 2008, Jones et al. 2007, Wix 2007). Positive patient evaluation of nurse prescriber communication skills in relation to listening and providing information on treatment have been reported previously using questionnaire methods (Latter et al. 2007, Courtenay et al. 2009a). This study has provided a detailed exploration of these benefits from the point of view of patients. Importantly, the findings illustrate how a number of interrelated attributes of the nurse style of consultation come together to enhance the care experience for patients.

As in McCormack and McCance's (2006) framework, we identify nurses' competence and interpersonal skills as prerequisites for person-centred care. Nurses' communication style (friendly, approachable, and engaging) was of great importance as it encouraged patients to share personal information, ask questions, raise concerns and seek clarification about their condition or treatment. Patients said they understood information and advice given by the nurse and that treatment decisions matched their lifestyle and situation. Consequently, patients felt better able to self-manage their condition and there were more opportunities to find solutions to problems when they occurred. Nurses' tendency to broaden the consultation to include other health and lifestyle issues further increased trust and understanding. Furthermore, where patients perceived the nurse to be genuinely concerned for their wellbeing this both inspired patients to reciprocate efforts to improve their health and was described as therapeutic. Nurses' specialist knowledge in diabetes

was also crucial, emphasising the importance of access to good quality continued professional development for diabetes nurse prescribers in order that they can provide up-to-date information and treatment (Courtenay et al. 2009b, Stenner et al. 2010b, International Diabetes Federation 2005).

In addition to the nurse attributes outlined above, environmental aspects (such as staff relations, skills mix and supportive organisation structures), have been identified as enabling a person-centred approach (McCormack and McCance 2006, Bolster and Manias 2010). Our findings highlight two additional environmental aspects. Firstly, having time for discussion was a key factor for patients and cited as a major difference between doctor and nurse consultations. Concern has been expressed over the brevity of general practitioners consultation times and the detrimental affect of this on doctors' ability to provide patient-centred care, especially in relation to long-term conditions like diabetes (Wilson and Childs 2002). Protecting the ability of nurse prescribers to be flexible about the length of consultations is therefore crucial to providing the kind of service patients want and need. Secondly, continuity was a key factor for patients. This enhanced the development of mutual respect and understanding, ease of communication and trust. In turn, these factors increased the likelihood that information and treatment was tailored to the patient, improving their understanding and ability to self-manage their condition. Continuity, along with access to care in an emergency, were two organisational aspects of care consistently identified as important to patients in a systematic review of patient priorities for general practice care (Wensing et al. 1998). It's importance has also been noted in nurse prescribing (Courtenay et al. 2009b) and in doctor-patient relationships (Howie et al. 2004).

Further components deemed necessary for patient-centred care are the provision of adequate information to make informed choices about treatment, and involving patients in care decisions. Overall, patients were happy with the amount of information given to them by the nurse prescriber. Despite this, the findings raise questions about the consistency and thoroughness of information nurses and doctors give to patients about side-effects when prescribing medication. A national survey of UK inpatients conducted

in 2005 found that less than half (49%) of patients reported that potential side effects of their medications were explained to them (Healthcare Commission 2007). This shortcoming merits further investigation as similar concerns have been raised in previous research in nurse prescribing (Latter et al. 2007).

Patients were also happy with their involvement in decision-making. However, views varied over the level of information required and the extent of desired involvement, with many patients preferring the nurse to make decisions about the most appropriate treatment for them. This is consistent with literature on patients' views and understanding of involvement (Thompson 2007, Entwistle et al. 2008). While patients have a desire for more information about their illness and treatment options, not all want to participate in treatment decisions (Ford et al. 2003). Our findings indicate that nurse prescribers demonstrate sensitivity to patients' requirements. This is in line with a definition of patient-centredness as taking into account the patients' desire for information and involvement and responding appropriately. An idea that Stewart (2001) backs with evidence that patients' perceptions of patient-centredness are better predictors of health outcomes than expert observers (Stewart 2001).

#### *4.1 Limitations*

As a qualitative study, the findings may not represent the views of all patients. A particular limitation being that the nurses who agreed to be involved may have done so because they were assured of their skill and competence in undertaking consultations. Although nurses selected do reflect the key settings in which nurses typically prescribe for patients with diabetes within primary care, the transferability of findings to other settings has yet to be confirmed.

#### *4.2 Relevance to clinical practice*

The findings add to our understanding of what patients with diabetes benefit from and value with respect to care provision (Mol 2008). When prescribing, nurses practice standards of care delivery recommended in international guidance for diabetes (International Diabetes Federation 2005). Given the increasing demand on services,

greater recognition should be given internationally to the contribution of nurse prescribing to improving diabetes care. Findings confirm that nurses' ability to provide patient-centred care is not, at present, jeopardised by their prescribing practice. However, a number of factors were identified as necessary prerequisites, including: continuity, flexibility over consultation length, interpersonal skills and specialist diabetes knowledge. Now identified, it is important that these characteristics are promoted and protected. Improvements can be made to the consistency of information provision on treatment side-effects and sensitivity should be shown to patients' desire for involvement in healthcare decisions at different points of care.

## **5. Conclusions**

This study confirms that nurse prescribers can contribute significantly to providing recommended service improvements. This is important given the high proportion of nurses who prescribe for patients with diabetes. The study provides new knowledge about the benefits of consultations with a nurse prescriber from the perspective of patients with diabetes. In addition to those benefits associated with person-centred nursing, the study highlighted benefits of improved understanding of treatment and condition, improved self-care, better access to medications, access to current advice and treatment, holistic care, individualised treatment and advice, and increased confidence in treatment. It is important that patients' desire and requirement for information and involvement are taken into consideration by policy makers and healthcare professionals.

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