Achieving blood pressure targets: Lessons from a study with practice nurses

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Article points

1. Practice nurses have a key role in working with people with diabetes.
2. Practice nurses discuss blood pressure less with patients they perceive have little knowledge. They may lack knowledge and confidence to change the way they work with patients.
3. The organisation of care in practices may be a barrier to change.
4. Protocols may act as barriers to the delivery of patient-centred care.
5. The delivery of diabetes care in general practices needs to be reviewed.

Key words

- Practice nurse
- Attitudes and beliefs

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Practice nurses now undertake chronic disease management that was previously carried out by GPs (Pierce et al, 2000). A recent study demonstrated that in 46% of GP practices annual diabetes reviews are carried out solely by the practice nurse for some or all people with type 2 diabetes (Stewart et al, 2005a). In the last 15 years practice nurses' day-to-day work has moved away from being treatment-room based towards that of health promoter (Gupta, 2000). They are responsible for much of the health promotion in general practices, and health promotion within chronic disease management is a firmly established constituent of the practice nurse role (Robinson et al, 1993; Atkin et al, 1994; Quinney et al, 1997). Evidently, practice nurses have an important role to play in delivering care to and improving health outcomes of people with diabetes. In this article Jane Stewart and her colleagues discuss the findings of a study which assessed practice nurses' attitudes and beliefs towards healthcare promotion in relation to diabetes care.

Good blood pressure control improves outcomes for people with type 2 diabetes (UK Prospective Diabetes Study [UKPDS] Group, 1998). The UKPDS suggests that very tight control is required to achieve a clinically important reduction in the risk of deaths and complications related to diabetes. The National Service Framework for diabetes (Department of Health [DoH], 2001) and Diabetes UK's care recommendations (Diabetes UK, 2005) acknowledge this tight control but suggest agreeing individualised blood pressure targets and care plans between healthcare professionals and people with diabetes. Studies have shown that an increased involvement of the person with diabetes in decisions about his or her care can result in improved diabetes outcomes (Greenfield et al, 1988; Street et al, 1993; Follett et al, 2001).

It is recognised that the beliefs and attitudes of healthcare professionals are major influences on their approach to enabling individuals to self-manage their diabetes effectively (DoH, 2002). Little is known about the practice of practice nurses in helping to achieve target blood pressure in

individuals; little is also known of nurses' beliefs about achieving targets.

The objectives of the qualitative work reported in this article were to explore:

- whether and how nurses discussed blood pressure targets with their patients
- the nurses' beliefs about the barriers to achieving target blood pressures.

Methods

Face-to-face semi-structured interviews with practice nurses were carried out as part of the qualitative research being undertaken within a cluster randomised controlled trial (RCT) to improve the management of raised blood pressure in people with type 2 diabetes in general practices in Nottingham. Recruitment of practices, data collection methods and practice characteristics are described elsewhere (Bebb et al, 2005). Nurses responsible for providing most of the diabetes care in each practice were selected for interview – where this responsibility was shared between nurses, practices were asked to select one nurse for interview.

The interview guide was based on a review of the existing literature, telephone interviews with nine practice nurses and face-to-face piloting of the initial guide with a further four nurses. All nurses involved in this process worked in primary care trusts outside of Nottingham.

Interviews took place between December 2001 and October 2002 in the practice in which the interviewee worked and lasted between half an hour and 1 hour. Nurses were assured of confidentiality. Interviews were audio taped and transcribed verbatim. Data were managed using QSR NUD*IST N5 software, a qualitative data analysis computer package (QSR International, Cardigan).

'Framework' analysis was used to map the range and nature of the data and to allow their categorisation into themes (i.e. nurses' statements relating to beliefs about barriers to achieving target blood pressure would be collated then sorted into those that indicated it was mainly an issue of a lack of adherence, and those that identified other barriers and what those barriers were; Ritchie and Spencer, 1994). This approach starts deductively from the aims and objectives set for the study but also allows issues raised by the participants to be included in the analysis (Mays and Pope, 2000). As themes emerged, contradictory cases were sought to ensure that the full range of expressed views were taken into account; this is one way of making sure that all data are accounted for during analysis when building a theory from qualitative research data (Murphy et al, 1998). The analytic framework was agreed between two of the authors (JS and KB) and then used to analyse all of the transcripts.

Results

Forty-three interviews were completed. The participants were all female and had worked as practice nurses for between 1 and 20 years, and with people with diabetes for between 1 and 16 years. There was a named nurse for diabetes in 36 of the practices. The number of whole-time equivalent nurses in each practice ranged between 0.5 and 3.25.

The following results focus on the nurses' beliefs about achieving blood pressure targets and how these impact on the discussion of targets with people with type 2 diabetes.

Barriers to achieving blood pressure targets

1. The person with diabetes

Most nurses perceived the greatest barrier to achieving a target blood pressure was lack of adherence to lifestyle advice or to prescribed medication. The following are examples ('N' refers to individual nurses).

> *'They don't do themselves favours where controlling blood pressure's concerned… they find compliance to diet difficult…'* **(N30)**

> *'When you're setting targets for blood pressure, compliance is a huge issue… because we could prescribe as many tablets as you like but whether people are actually taking them when they're supposed to be taking them…'* **(N36)**

This lack of adherence was seen, by the majority of nurses, to be associated with a lack of understanding about diabetes and its

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1. Very few nurses talked about the need to understand people's health beliefs and how these impacted on people's decisions to make lifestyle change.
2. The interviewees tended to classify people dichotomously, for example: interested or not interested; motivated or not motivated; adherent or non-adherent.
3. Lack of time was a major issue, not just in relation to nurses being able to deliver patient-centred care in the way they would like, but also in terms of communication between doctors and nurses.
4. As practice nurses tend to work in isolation there was little opportunity for them to identify alternative ways of working.

management:

'I'm not saying we couldn't achieve [blood pressure targets] in some patients but there will always be those who will be non-compliant… The more information people have, the better able they are to understand it, the more likely they are to take on board the need to change… and control their glucose and blood pressure… people don't understand blood pressure. I don't think they really understand what we're [trying to do].' (N21)

'It's quite difficult to persuade people to take any tablets, never mind maybe three for blood pressure… I think they see blood pressure as less of a threat… it's just getting them to understand the importance of it.' (N10)

However, many of the nurses also recognised that socio-economic circumstances could impact on an individual's ability to incorporate lifestyle changes:

'You know, if they're not in very good housing, they're in situations where they've got no support or [they do not have] much money, they've perhaps got young children or if life's stacked against them anyway, then I don't think they're as able to make the [suggested lifestyle] changes.' (N21)

Very few nurses talked about the need to understand people's health beliefs and how these impacted on people's decisions to make lifestyle changes; however, the following is one example.

'Some patients, however much you explain how important it is, so you think they understand why they're on it [medication], will still choose [not to take it], it's all to do with their own health beliefs isn't it… You need to really be looking at… how susceptible they feel or how serious they feel the condition is.' (N23)

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'I think [there are] either people who are interested in their health or people that aren't.' (N2)

'… people are people, they will comply or they won't comply.' (N31)

'Some are very motivated, as soon as they know [that they have diabetes] they really go the whole hog to change their lifestyle and others just don't.' (N10)

'… I don't think you can change a lot of people can you? We're all different, some people have the stronger will to [change their lifestyle].' (N14)

2. Organisation of care within the practice

The nurses were asked who decided on the blood pressure that was considered to be 'acceptable' for those whose blood pressure was above the recommended target. Nurses did not feel able to make this decision by themselves or in partnership with the person with diabetes. The tendency was for the GP to make the decision alone; sometimes nurses were included in the discussion, but few nurses said that the person with diabetes was usually included in this discussion.

'I discuss it with the doctors… and they make a clinical judgment on it.' (N30)

'Our role would normally be to refer it [raised blood pressure] back to the GP so in that sense it wouldn't be our [the nurses'] decision.' (N10)

'We [the nurse and the GP] have a discussion there and then between the two of us and we'll come to a decision on what we're going to do… I'm a very good advocate for the patient though, I tend to put the patient's side over.' (N29)

'We just have to try our best and reach a mutual decision between all of us, the doctor, me and the patient.' (N22)

Lack of time was a major issue, not just in relation to nurses being able to deliver patient-centred care in the way they would like, but also in terms of communication between doctors and nurses.

'[I would like to] spend the time finding out what the patient feels like, what do they want. You haven't got time for that, you're telling them all the time what they should be doing and who sits downs and says, "OK, what do you want to do, how do you want to do this?"... I've only got time to do what I should be doing in 15 minutes.' (N20)

'[Communication] between the doctors [is] good, they meet most days every morning for coffee but as far as me and the doctors [are] concerned [the communication between us is] abysmal. We never meet… I never get to see them.' (N37)

As practice nurses tend to work in isolation there was little opportunity for them to identify alternative ways of working. Although only spoken about by one nurse, it is included because, as the quote below demonstrates, it

is an issue that tends not to be noticed until an opportunity to work with other people arises. This nurse spoke about how a diabetes specialist nurse (DSN) had been available to work with some of the practices in one locality.

'I think it's helpful to us because we're just sort of sitting here learning your own way of consulting [with] the patient. And you think you're doing it OK until you find somebody who might do it a little bit better… I've actually sat in with her [the DSN], she's come in with a patient with me which I [found] very helpful… she's got a special way of talking about the disease management… she seemed to explain it very simply in just specific stages and I found that really good… she had a lot of experience doing that, and how she encouraged the patient in that consultation and I just thought… that sounds a really good way of putting it across.' (N39)

Health promotion approaches adopted by practice nurses

1. Patient characteristics influencing nurses' approach to health promotion

The amount of information given to an individual sometimes appeared to depend on the nurse's assessment of how much understanding or interest a person had in his or her diabetes, health and general wellbeing. Concerns were also expressed about making a person with diabetes anxious.

'I wouldn't say to a patient who didn't have any knowledge, "Right, we'd like [your blood pressure] to be 140/80" because I think that tends to confuse them more and gets them very anxious, especially if the blood pressure's high because, you know, a little knowledge is a dangerous thing and it might cause problems. We'll say: "Well that's a little bit high or that's a little bit low" to the patients that we know don't have any interest in what the blood pressure is apart from the fact that whether it's right or not… If people are more interested then we do tell them, you know, the people who know what their blood pressure is and what it was last time and so on, we would discuss it more. It would depend on the patient I think is the answer to that really.' (N18)

'No I don't think a lot of people do [understand raised blood pressure] and it's quite a difficult thing to explain in a brief space of time what it means… I talk about it being to do with how strongly the heart's passing the blood around the body and the higher it is the more wear and tear you get on the arteries. And then you sort of frighten them by saying that you're more prone to strokes… [it is about trying to find a balance between] what's educational and what's frightening.' (N9)

2. Nurses' understanding of health promotion strategies

As a result of the perceived association between a lack of knowledge and a lack of adherence, nurses often resorted to repeating advice to people, in the hope that, eventually, people would understand what was being said to them and then start adhering to therapies and suggested lifestyle changes. There were many references to the need to frequently reinforce advice about lifestyle changes that may reduce blood pressure.

'So if their blood [pressure] was actually sort of raised at that time I would probably reinforce lifestyle issues anyway, give them a few more leaflets and stuff… I will always try and mention something about it just to reinforce the information that they've heard before and hope that something gets through.' (N42)

'If you hammer on and on and on sometimes with some patients you can chip away and it works.' (N21)

Repeating the information also appeared to serve two other purposes. Firstly, it allowed the nurse to check that she is complying with the guidelines she had been given:

'I do comply with the guidelines, I do give them New Leaf advice [smoking cessation] and stuff… I do comply with my Service Agreement.' (N1)

'Oh I always go through diet. I'm only doing it because it's templated [there is a guideline on the computer], so you're prompted, so you don't forget.' (N20)

Secondly, it reassured the nurse that she had carried out her professional responsibility in telling patients how to minimise their risk of illness and complications:

'[It is] documented in the notes what we've said to them and the advice that was given and we document what they say. At the end of the day it's their decision… we can't force them to do anything they don't want to do.' (N13)

'You can give advice to the patients but at the end of the day, you know, they make the choice. But as long as we've explained to them why we want them to take the tablets and to follow lifestyle advice and diabetic education is reinforced then, and you know we've explained to prevent risks, to prevent strokes, to prevent heart attacks and, you know, blindness, there's lots of risks [that] come with diabetes. Then, you know, we've done our best…' (N24)

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Page points

1. Nurses' language indicated that they still work within a professional-as-expert model, rather than in a true partnership with the people with diabetes.
2. References to 'compliance' occurred in all 43 interviews but only one interviewee also used the term 'concordance', which indicates a partnership between the person with diabetes and the healthcare professional.
3. One nurse highlighted that delivery of care depends not only on the knowledge and skills of the nurse, but also on the interaction between the context (such as the socio-economic make-up of the practice) in which the nurse works and the person with diabetes.

It was clear that, for many nurses, 'discussing' blood pressure targets meant telling people with diabetes what the target was; this was mostly a generic target rather than the patient's individualised one.

> *'If it's high I tell them what we need to get it down to but it's not like, "What do you think and what target do you want to get down to?" We don't negotiate it, I tend to say, "Look, this is your blood pressure but this is what we're expected to get it down to". So that's the only way I discuss it with them.'* (N20)

> *'I say to them: "These days we've got guidelines and the guidelines are 140/80."'* (N33)

For a minority of nurses discussing blood pressure targets did involve negotiation:

> *'[It is] important that it's the patient's choice I think. Tell them what we would like [the blood pressure] to be and let them decide how far they want to pursue it rather than saying, "you will, you will", which is what we like to do in the medical profession.'* (N29)

Nurses' language indicated that they still work within a professional-as-expert model (Bissell et al, 2004), rather than in a true partnership with the people with diabetes.

> *'They're quite good at listening to you trying to… educate them.'* (N31)

> *'We try and talk to them and try and educate them and at the end of the day it's up to them isn't it? I mean one or two of them get quite irate if you start talking to them about their diet and exercise and, you know, don't like being told what to do. But that's a minority really, most people are fairly compliant.'* (N5)

References to 'compliance' occurred in all 43 interviews but only one interviewee also used the term 'concordance' (see N27's comments below), which indicates a partnership between the person with diabetes and the healthcare professional (Bissell et al, 2004).

3. Practice and patient barriers to effective health promotion strategies

One nurse highlighted that delivery of care depends not only on the knowledge and skills of the nurse, but also on the interaction between the context in which the nurse works and the person with diabetes. This nurse reported being able to offer more patient-centred care in a surgery serving a middle-class population. This was because she perceived the people using the surgery to be more receptive than those registered at a surgery serving a more deprived population.

> *'Well I can discuss, you know, manageable targets and I can say to them: "well look, yes, you're a bit overweight so what can we do to manage that" and we can talk together and achieve concordance. I think it's the type of clientele, they are more switched on with their health [in an 'affluent' surgery]. Whereas at [a 'deprived' surgery], you know, they couldn't give a monkey's.'* (N27)

This nurse also identified a contrast in the time available for consultation between the two locations.

> *'I think, to be perfectly honest, the diabetic patients here [at the 'affluent' surgery] probably get a better service than in [the 'deprived' surgery] because I've got that bit more time, it doesn't matter if [the annual review] takes more than half an hour because I don't get booked up as much here… whereas at [the 'deprived' surgery] it's like bang, bang, bang, bang, bang. And you're kind of like trying to get them done and kick them out the door before they've been able to sit down, so to speak.'* (N27)

Discussion

Practice nurses perceived the main barrier to achieving blood pressure targets in type 2 diabetes as the person with diabetes' lack of understanding of how important it is to control his or her blood pressure. Paradoxically, nurses were less likely to discuss blood pressure and targets with the people they perceived had less interest in their health or who were less likely to understand. As a certain level of knowledge is a prerequisite before people with diabetes can initiate and maintain behavioural change (Sturt et al, 2005), nurses may inadvertently be perpetuating this barrier to achieving blood pressure targets.

This adds to pre-existing knowledge that communication between the nurse and the patient is related to patient characteristics, including education (Street et al, 1993). Because of doctors' perceptions that they were 'stupid, or else not interested', people with other chronic conditions have reported not being given as much information as

they would have liked (Rogers et al, 2000). This suggests that a considerable shift in healthcare-professional practice is still required to ensure that all people with diabetes have access to information required to facilitate change.

While there are many definitions of health promotion, it is accepted that it includes imparting information, alongside supporting individuals and facilitating change (Katz and Peberdy, 1997). The current study has helped illuminate the approach to health promotion used by practice nurses.

Many nurses perceived that there was little they could do to support individuals to facilitate health-related behaviour change. In contrast to reports elsewhere (such as Mackereth, 1995) many did have an understanding of the broader determinants of health behaviours; what they appeared to lack was either training or the opportunity to incorporate this understanding into their health-promoting role.

Concerns have been expressed in the past about involving practice nurses in educating people with diabetes about their condition (Carr et al, 1991) and undertaking health promotion work (Ross and Bower, 1992). The authors' findings extend these concerns to blood pressure health promotion in the context of diabetes. Few nurses in this study demonstrated an awareness of theories of health behaviour change and, like other nurses (Whitehead, 2001), their approach to health promotion did not appear to move beyond simple advice giving. People with diabetes have expressed dissatisfaction with this advice-giving approach (Stewart et al, 2005b).

Routine discussion of health promotion topics within the diabetes care protocol presented a dilemma for some nurses. While many were aware that patient-centred care meant addressing topics of importance to the person with diabetes, they felt obliged to cover all topics presented in the protocol. However, rather than routine repetition of information, patients really require support to implement and maintain changes in the context of their own lives (Stewart et al, 2005b; Sturt et al, 2005).

As in other studies (for example, Pill et al, 1999), practice nurses cited a lack of time as a reason for not being able to deliver patient-centred care. This was an issue because the nurses' role was to carry out and record physical and biochemical measurements for the annual review, alongside health promotion, during a time-limited consultation.

It was found that most practice nurses worked in isolation. The only nurse that spoke about this recognised how this had a negative impact on her care of patients. Other work has discussed how working in isolation means there is no way for practice nurses to know if they are 'on the right track' in their work and it constrains their ability to identify new approaches to good practice (Tate and Dobson, 2000). The authors have also shown that the care an individual with diabetes received depended on the interaction of factors such as patient and nurse characteristics and the organisation of care within the practice (also shown by: Brown et al, 1999 [which referred to health promotion and cardiovascular disease], and Brown et al, 2002).

Nurses were not always involved in the process of making decisions on the management of raised blood pressures. This may impact on the approach to discussing blood pressure control taken by nurses, especially if they perceived their role to be checking and reporting raised blood pressure, rather than directly responding to it.

Strengths and limitations of the study

Nurses interviewed in this large qualitative study worked in a variety of practice settings: from single-handed practices to large multi-partner ones; in practices located in deprived inner city areas to those in more affluent suburban and rural areas. All of the interviewees worked in practices participating in an RCT to improve the management of blood pressure of people with type 2 diabetes; therefore, they may have had more of an interest in diabetes care than practices that chose not to participate.

A robust analytic process was undertaken:

Page points

1. In contrast to reports elsewhere many nurses did have an understanding of the broader determinants of health behaviours; what they appeared to lack was either training or the opportunity to incorporate this understanding into their health-promoting role.
2. Routine discussion of health promotion topics within the diabetes care protocol presented a dilemma for some nurses. While many were aware that patient-centred care meant addressing topics of importance to the patient, they felt obliged to cover all topics presented in the protocol.
3. As in other studies, practice nurses cited a lack of time as a reason for not being able to deliver patient-centred care.
4. It was found that most practice nurses worked in isolation. The only nurse that spoke about this recognised how this had a negative impact on her care of patients.

Page points

1. Nurses may lack the knowledge required to step beyond the information-giving role and require more education in relation to a number of aspects of the health promotion process.
2. Some nurses may lack confidence in their ability to implement this knowledge. Strategies to reduce nurse isolation such as peer support or clinical supervision would help support nurses and raise their confidence as they begin to work in new ways and take on more responsibility.
3. Nurses may also lack the opportunity to implement different ways of working with patients because of the way care delivery is organised in the practice.
4. Pre-existing guidelines and communication processes should be reviewed to reflect the needs of the practice nurse and patient with regards to decision-making and individual target setting.

findings were validated against previously published literature; the findings included issues that were frequently discussed and also those with minimal occurrence. There is a tendency for participants in qualitative studies to present themselves in the best possible light (Murphy et al, 1998); therefore, it is unlikely that what the practice nurses reported was actually worse than they practised, although there is a possibility that it may have been better.

Since the interviews were undertaken GPs' contracts have changed to include financial incentives for achieving blood pressure targets in people with diabetes (Reckless, 2004) and structured diabetes education is being introduced for people with newly diagnosed type 2 diabetes (Sturt et al, 2005). Undoubtedly these will help to address some of the issues raised by the nurses but the findings are still highly relevant, as nurses remain responsible for much of the day-to-day care of and ongoing education of people with diabetes and other chronic conditions.

Conclusions

It was clear from the interviews that the nurses interviewed were committed to providing high-quality care to the people with diabetes they worked with. However, these findings suggest that the extension of the practice nurses' role in the provision of diabetes care and associated management of raised blood pressure in general practices may have occurred without due consideration of extra training, support or the reorganisation of care within the practice required for nurses to successfully extend their role.

Nurses may lack the knowledge required to step beyond the information-giving role and require more education in relation to a number of aspects of the health promotion process. These include understanding theoretically informed health promotion strategies, including ways of communicating health messages to people and responding to their expressed health needs.

Some nurses may lack confidence in their ability to implement this knowledge. Strategies to reduce nurse isolation such as peer support or clinical supervision would help support nurses and raise their confidence as they begin to work in new ways and take on more responsibility.

Nurses may also lack the opportunity to implement different ways of working with patients because of the way care delivery is organised in the practice. Pre-existing guidelines and communication processes should be reviewed to reflect the needs of the practice nurse and patient with regards to decision-making and individual target setting. Guidelines need to acknowledge that the starting point of many people with diabetes is at a limited understanding of the relationship between blood pressure and diabetes and nurses need to be able to allocate more time to work with these people.

A considerable shift in healthcare-professional practice and the organisation of care within general practices is still required in order to achieve the collaborative model in which practice nurses are expected to work with patients to design personalised self-management plans for diabetes. ■

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'A considerable shift in healthcare-professional practice and the organisation of care within general practices is still required in order to achieve the collaborative model in which practice nurses are expected to work with patients to design personalised self-management plans for diabetes.'