The nurse-led diabetes clinic: A care satisfaction audit

Beas Bhattacharya, Sharon Pickering, Alan McCulloch, June Redhead, Adrian Heald

Article points

1. People need to feel empowered to manage their diabetes.
2. The authors examined their nurse-led diabetes clinic service from the point of view of people attending it.
3. 100% of responses were positive about the competency, support and consideration of nursing staff.
4. There should be an expansion of this approach to hospital outpatient management of diabetes nationwide.

Key words

- Nurse-led clinic
- Satisfaction

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The National Service Framework for diabetes (DoH, 2001) recommends regular surveillance for the long-term complications of diabetes. To meet growing demand, there has been an increase in specialist nurse-led care in the authors' locality. This facilitates achievement of targets; however, the satisfaction of each individual is also vital. A postal questionnaire was sent to 91 people selected randomly from those attending the nurse-led annual review clinic at a district general hospital: there was a 75% response rate. People were asked about waiting times, opportunities for education and discussion and overall opinion of the service. The authors present the results of this survey and discuss the impact that more nurse-led care will have for people with diabetes.

The provision of care for diabetes as a chronic and progressive condition is a significant challenge to our healthcare system. Analyses of effective models of care for diabetes and other chronic diseases suggest that the design of practice plays an important role in their success (Wagner et al, 1996). The design of the practice refers to the delegation of roles within the practice team, the involvement of other disciplines, the organisation of visits and follow up and the integration of psychoeducational interventions. Efforts to redesign care delivery systems to improve outcomes in diabetes have varied widely in approach. The interventions include increased involvement of non-physician providers (usually nurses or nurse practitioners; Aubert et al, 1998; Peters et al, 1995) or changing the design of visits or the handling of follow up (Weinberger et al, 1995).

Rather than looking at success of treatment exclusively as reaching targets, we examined our diabetes clinic service from an outpatient's point of view to determine whether or not there was the need to achieve a more friendly service, so that people feel empowered to manage their diabetes. This has been shown to improve quantitative markers of metabolic control (Norris et al, 2001).

DSNs play a pivotal role in long-term diabetes management and, in the authors' locality, they have closer contact with people with diabetes

on a day-to-day basis than the majority of clinicians. The DSN role not only accomplishes medical management of diabetes but also has an overall holistic approach, essential to chronic disease management. The nurse-led clinic is an alternative way of providing care, as the increasing number of people with diabetes places heavier demands on the healthcare system (Burden et al, 2005; New et al, 2003; Vrijhoef et al, 2001).

The authors performed an audit comparing people's views of two modes of annual diabetes review delivery: that led by nurses and the traditional outpatient clinic run by doctors.

Methods

The base of the audit was Bishop Auckland General Hospital, Durham, providing acute and specialist services to a mixed rural and urban area in the north-east of England. The ethnic majority of the area is Caucasian (>95%). The diabetes service was set up in 1986. Diabetes review clinics are held in the hospital outpatient clinic and follow a multidisciplinary model with clinicians (including two GPSIs in diabetes), dietitians, podiatrists, orthotists, retinal screening and DSNs readily available during these clinics. A vascular surgeon is also on hand during the session as their team runs a parallel clinic in the same area.

The nurse-led clinics take place at the same time in a community clinic, Escomb Road Clinic, across the road from the hospital. An average of ten diabetes reviews take place per session.

The authors employed a simple questionnaire sent to a randomly selected group of people with diabetes in long-term follow up who had the opportunity to attend a nurse-led clinic as an alternative to the outpatient follow-up clinic. A postal questionnaire was sent to 91 individuals randomly selected from those attending the nurse-led annual review clinic at Bishop Auckland General Hospital. Selection was determined by random number tables. Of those selected, 71% had type 2 diabetes, which is representative of the outpatient clinic population.

The results from the questionnaire were based on semi-structured responses from people with diabetes who had attended the outpatient clinic at the hospital as well as the nurse-led clinic. While the questionnaire was not externally validated, the authors feel that the design of the questions could support its use beyond this study. The questions are outlined in *Box 1*.

Results

The total number of people seen by the diabetes nurses in 2005 was 420. The questionnaire was sent to 91, out of which 68 people replied giving a 75% response rate. This was a random sample.

Question 1

Over half of the respondents reported that they had been seen before or within 10 minutes of their appointment time: 22 (32%) were seen on time, 21 (16%) within 10 minutes and 5 (7%) were seen before time (*Figure 1*).

In total, 11 people responded with comments rather than timescales; five said they were seen 'soon', five said that they were seen 'very quickly' and one said that they were seen more quickly than in the hospital outpatients clinic.

Question 2

An overwhelming majority of participants said that they spent less time in the nurse-led clinic than they would have done in the hospital outpatients clinic (*Figure 2*). Two of those who replied 'Yes, but...' made the following

Page points

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2. The authors employed a simple questionnaire sent to a randomly selected group of people with diabetes.
3. The questionnaire was based on semi-structured interview responses from people attending the diabetes clinic.

Box 1. Questions asked in the survey.

Question 1:	How soon were you seen in relation to your appointment time?
Question 2:	Do you feel that you spent less time in the nurse-led clinic than you would have done in the main outpatients clinic?
Question 3:	How did you find the nursing staff?
Question 4:	Did you receive adequate information and education about your diabetes?
Question 5:	Did you have the opportunity to discuss your condition?
Question 6:	How did you feel your screening was carried out?
Question 7:	On a score from 1–10 would you prefer to attend an annual review clinic by a diabetes specialist nurse?

Figure 1. Delay between appointment time and being seen by DSN (question 1).

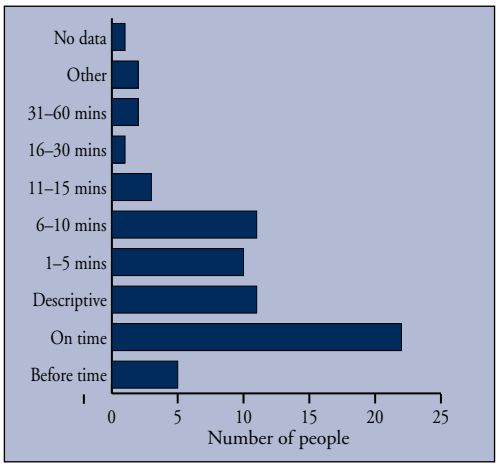


Figure 2. Frequency of answers to question 2: Do you feel that you spent less time in the nurse-led clinic than you would have done in the main outpatients clinic?

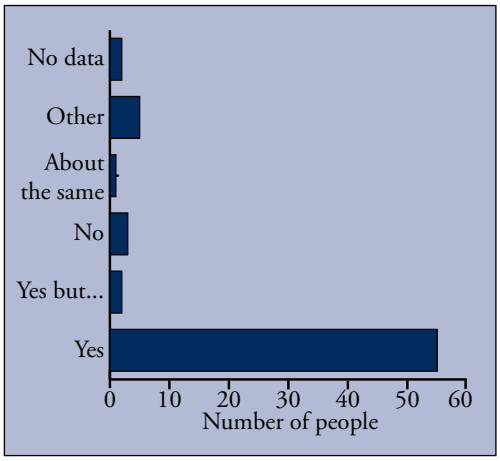
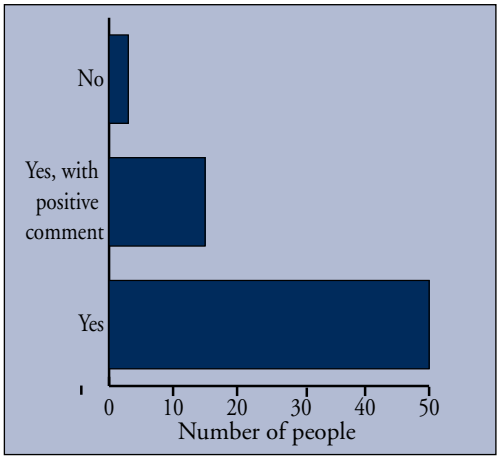


Figure 3. Number of people who said that they received information and education about their diabetes.



comments:

'... in the hospital, the photography was delayed as I hadn't had eye drops. I then waited 30 mins after he put drops in. This is the only part of the service which could be improved.'

Table 1. Terms used to describe the nursing staff in response to question 3 (see *Box 1*) and frequency reported.

Excellent/good/first class/fine	40
Helpful/obliging	18
Pleasant/polite/nice/caring/ approachable/informal/friendly	17
Knowledgeable/educated/ up-to-date with information	5
Interested	2
Efficient/proficient	2
Dedicated/motivated	2
Able to talk things over	1
Professional	1

'... it was a bind going to hospital for eyes.'

Question 3

All of the 68 responses to this question were positive and are outlined in *Table 1*.

Question 4

Over 95% of people who returned the questionnaire said that they received adequate information and education about their diabetes (*Figure 3*). Their comments included:

'Even though diagnosed 6 years ago, I've learnt from the clinic.'

'With help over the telephone if necessary'.

'Very well explained.'

'Clearly explained, brochure appreciated.'

Question 5

All of those who responded said that they did have the option to discuss their diabetes, although four said that they would have liked more information following the initial discussion.

Question 6

Of the 68 responses, 60 were fully positive, that is to say; 'First class', 'Excellent' or 'Friendly and helpful'. This represents 88% of participants. This indicates a high success for a nurse-led

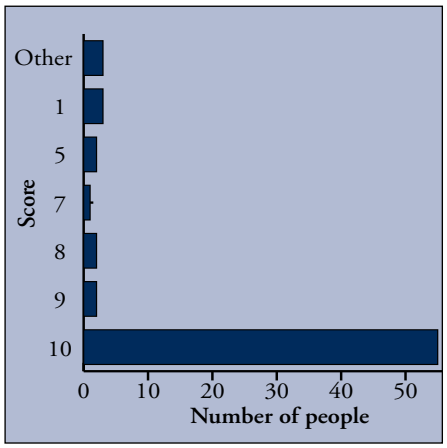


Figure 4. Responses from Question 7: On a score of 1–10, would you prefer to attend an annual review clinic by a DSN.

diabetic clinic from the outpatients' perspective. The remaining eight responses were as follows:

> ***'Not to same depth (ie eye test) as at OP. I think in time this will improve.'***

> ***'I made an alternative appointment to have my eyes screened.'***

> ***'A young lady upped my glargine. Never seen anybody about diabetes since I saw you long before Christmas'.***

> ***'Quickly and efficiently, allowing me to discuss all aspects of my care. Only down point was misunderstanding in OP eye-screening department who thought the eye drops were being administered at Escomb Road - spent time seeking assistance.'***

> ***'OK but been in hospital for 4 hours for dilation.'***

> ***'My only concern was waiting in OP for eye drops – better to have eye drops in Escomb Road and then attend Medical Photography.'***

> ***'The only drawback is going to the hospital for eye screening.'***

Question 7

A large percentage (88%) gave a score of 10 on this scale, indicating that they would much rather attend a nurse-led clinic than a medical review clinic (*Figure 4*).

Conclusion

Overall opinion about the service was very positive cross the domains assessed. This suggests that outpatients are extremely satisfied with nurse-led diabetes care and indicates that an expansion of this approach to hospital outpatient management of diabetes nationwide would be well received.

The authors noticed an absolute improvement in HbA_{1c} of 0.8% in the sample described in this study, which is supported by Woodward et al (2005) who found that frequent regular contact and health education in a nurse-led clinic to reduce cardiovascular risk may actually improve HbA_{1c} in the absence of any specific pharmacological or lifestyle intervention to improve glycaemic control.

It has been postulated that a 'non-specific support' element that stimulates behavioural change responses may help to improve glycaemic control regardless of medication dose increases – the so-called 'Hawthorne effect' (Gale, 2004). This could explain the improvement of glycaemic control previously seen in non-pharmacological intervention groups (Worth et al, 1982).

This study was relatively small and not all of those who attended the nurse-led clinic were offered the opportunity to appraise the service. However, the sample was random and representative. The findings are of relevance and are generally applicable.

The questionnaire was sent by post. Response rates to postal questionnaires are lower than for face-to-face interviews and this has been accepted as a potential

Page points

1. Within the current climate of commissioning of specialist services, the diabetes specialist nurse-led diabetes clinic should be seen as a valuable resource
2. The nurse-led clinic could be perceived by individuals with diabetes as more relevant to their needs.
3. In a rapidly changing health service, the setting and mode of delivery of health care with empowerment of individuals is arguably as important as any breakthroughs in pharmacotherapy in improving long-term outcome.

limitation. If the audit was to be replicated then there are several options for increasing the response rate; for example, a monetary incentive (Edwards et al, 2007). Furthermore, the study was performed at only one hospital serving a circumscribed geographical area.

As a result of regular contact, specialist nurses often have detailed knowledge of the individuals' lives and family context. To the person with diabetes, this may impart a feeling of being singled out for special treatment as in the UK Prospective Diabetes Study, reported by Lawton et al (2003). DSNs have, in some cases, worked in a specific locality for many years. As a consequence, they have had the opportunity to build long-term therapeutic relationships with the people with diabetes. This is in contrast to hospital doctors who, until they reach consultant grade, are unlikely to spend more than 1 year working in any one service. Within the current climate of commissioning of specialist services, the diabetes specialist nurse-led diabetes clinic should be seen as a valuable resource.

Conclusions

The specialist nurse-led consultation, by its very nature, is more focussed on the life situation and the needs of the individual than the doctor-led consultation, which is often directed more towards screening for organ complications and the pharmacological management of the whole range of quantitative cardiometabolic variables now targeted in the management of type 1 and type 2 diabetes. As a consequence, the nurse-led clinic could be perceived by people with diabetes as more relevant to their needs. Our findings imply that nurse-led clinics add great value to diabetes service provision and accord with the results of similar studies in the area of cardiometabolic disease management (New et al, 2003).

Types 1 and 2 diabetes can cause serious long-term health complications with significant morbidity and mortality. Lack of adherence to therapeutic regimens has been cited as the most important problem in the management of diabetes (McNabb, 1997). In a rapidly changing health service, the setting and mode of delivery of health care with individual empowerment is arguably as important as any breakthroughs in pharmacotherapy in improving long-term outcome. Consideration of these issues, specifically with regard to expansion of nurse-led specialist services in primary and secondary care, has the potential to impact in a positive way on the metabolic control of many individuals with diabetes. ■

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