Transfer of a diabetes education programme to primary care

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Introduction

Since 1993, Bournemouth Diabetes and Endocrine Centre has provided the 'Focus on Diabetes' education programme. This is a nurse-led, open-access, structured education programme run over 3 months for all people newly diagnosed with type 2 diabetes. Individuals are seen within 1 week of diagnosis. The increasing number of referrals to the programme in recent years made it difficult to manage effectively. This article describes how, in an effort to ease this pressure, the well-established secondary care education programme was transferred to three community settings without affecting clinical outcomes in terms of HbA_{1c} and body mass index.

Over the past 20 years a political imperative has developed to move the responsibility for the care of people with diabetes from hospitals to primary care (Goyder and McNally, 1998).

Education is considered a fundamental aspect of diabetes care, enabling individuals to improve their knowledge, skills and confidence, and allowing them to take increasing control of their condition and integrate effective self-management into their daily lives.

It is generally accepted that the emphasis of education should be to encourage and help people with diabetes to adopt a more positive lifestyle by focusing on diet and exercise, in order to postpone or prevent the development of complications. The education needs to be delivered in a structured format to achieve the most effective results (Norris et al, 2001).

The importance of improving the care of people with diabetes was also highlighted in standard 3 of the National Service Framework for Diabetes (Department of Health, 2001), which stated that:

> ***'All children, young people and adults with diabetes will receive a service that encourages partnerships in decision-making, supports them in managing their diabetes and helps them to adopt and maintain a healthy lifestyle.'***

In addition, the National Institute for Health and Clinical Excellence (NICE; formerly the National Institute for Clinical Excellence) has recommended that structured patient education be made available to all people with diabetes at the time of diagnosis, and then as required on an ongoing basis. Sessions should be 'accessible to the broadest range of people and could be held in the community or a local diabetes centre' (NICE, 2003).

The Bournemouth 'First Focus on Diabetes' education programme

This programme began in 1993 (Everett and Kerr, 1998). After diagnosis in primary care, people with type 2 diabetes were seen at an open-access group education hospital clinic (First Focus) within 1 week of diagnosis. The programme was nurse-led and provided reassurance, support and information. The education process began as soon as possible after diagnosis.

Patients at First Focus attended two further group education sessions (Focus 2 and Focus 3) over the next 2 months.

Until 2000, they were all seen by a diabetes dietitian individually after their third visit.

The programme concluded with a medical review appointment in the diabetes clinic at 3 months, at which point they were either transferred back to primary care or seen in a specialist hospital diabetes clinic (*Figure 1*).

ARTICLE POINTS

1 Education should focus on helping people with diabetes to adopt and maintain a healthy lifestyle.

2 Structured education enables individuals to improve their knowledge, skills and confidence and to integrate effective self-management into their daily lives.

3 Individuals are seen in a relaxed friendly environment in the community.

4 People with diabetes are encouraged to use their own biomedical data to set their own goals.

5 A well-established hospital-based education programme has been successfully transferred to the community without affecting clinical outcomes.

KEY WORDS

- **Focus programme**
- **Primary care**
- **Structured education**
- **Self-management**

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First Focus Nurse	Simple explanation of diabetes Symptoms Reassurance Self-monitoring Measurements: – capillary blood glucose – body mass index – HbA_{1c} – smoking – alcohol 'Diafax' (personalised folder containing programme details/information leaflets) issued to each patient A proportion of patients are seen individually to assess whether medication is necessary
Focus 2 Dietitian Nurse	**One month after First Focus** Focus on food: intensive dietary advice Sick day rules Self-monitoring Driving Support groups
Blood test	Fasting blood glucose test at 6 weeks
Focus 3 Podiatrist Nurse	**Two months after First Focus** Focus on feet Complications of diabetes What to expect at clinic visits Blood tests explained
Blood test	Fasting blood sugar, HbA_{1c}, lipids, creatinine 2 weeks before medical review
Medical review	**Three months after First Focus** Medical assessment by doctor Screening for complications Review of medication Transfer to GP or specialist hospital clinic

Figure 1. Content of the Bournemouth 'Focus on Diabetes' secondary care education programme.

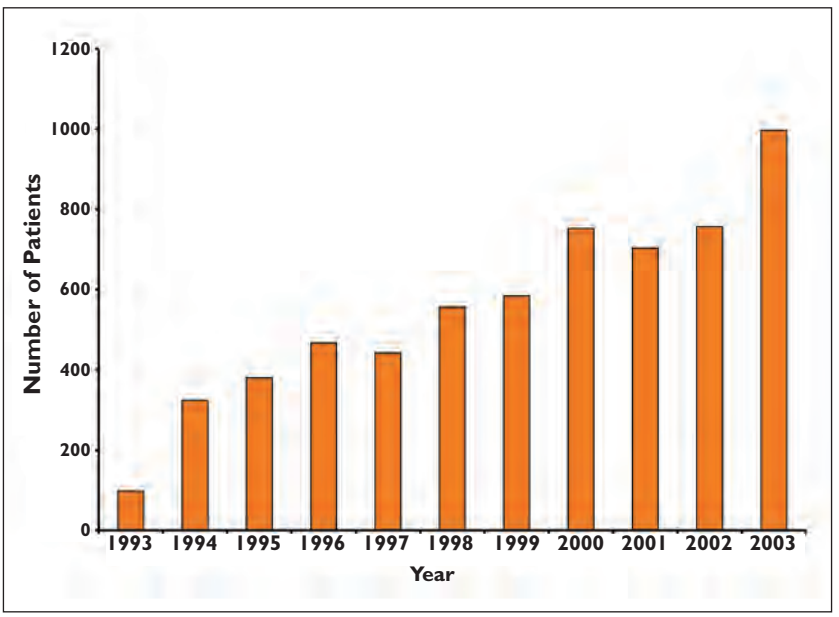

Figure 2. Referrals to First Focus, 1993–2003.

Evolution of the Focus programme over 10 years

The growing number of referrals to the Focus programme meant that group and individual appointments with the nurse, dietitian and podiatrist also had to increase, and the programme soon became difficult to manage (*Figure 2*). As a result, people with diabetes were no longer seen individually and responsibility for follow-up, blood tests and adjustment of medication has been transferred gradually to primary care. In 2004, medical reviews ceased at the hospital.

Reasons for this change included the following:

- increase in participant numbers
- limited space
- lack of funding
- long wait for clinic review resulting in duplication by GP.

PCT involvement

The Bournemouth Diabetes and Endocrine Centre serves two primary care trusts (PCTs). In 2002, a PCT-funded diabetes nurse specialist was employed and trained to set up a similar education programme in a local community hospital. Subsequently two practice nurses were recruited and trained by her as diabetes nurse educators.

In 2003, in another PCT, a community-based version of the original programme, involving 13 practices, was set up in a local community centre. A small number of people with type 2 diabetes continued to attend the original secondary care-based programme until January 2005, when an additional programme started at a local leisure centre funded by the PCT. The content of the primary care education programme is shown in *Figure 3*.

Audit

Data have been collected at baseline and at the 3-month medical review and the programme has been audited regularly. Similar audits have been performed at the two local community venues (*Table 1*).

February 2003 to February 2004

There were no significant differences between locations in the reduction in HbA_{1c} levels achieved between diagnosis and after 3 months, which were as follows.

- –1.4% (95% confidence interval [CI]: –1.6 to –1.2) in the hospital programme.
- –1.4% (95% CI: –1.7 to –1.1) in the programme in PCT 1 (local community hospital).
- –1.1% (95% CI: –1.4 to –0.9) at the programme in PCT 2 (local community centre; *Figure 4*).

The changes in body mass index (BMI) observed between diagnosis and 3 months in all three settings were also similar:

- –0.9 kg/m^2 (95% CI: –1.1 to –0.7) in hospital
- –1.1 kg/m^2 (95% CI: –1.5 to –0.7) at PCT 1.
- –0.8 kg/m^2 (95% CI: –1.0 to –0.6) at PCT 2 (*Figure 5*).

Similar changes in lipid profile, renal function and blood pressure were also observed over the same period.

Patient evaluation

In order to evaluate the community programme, 100 patients were given a questionnaire asking whether they were satisfied with the programme and whether they liked the group method of teaching. The questionnaire response rate was 89%. Of the respondents, 92% were satisfied with the programme 'a lot' and 87% liked the group method of teaching 'a lot'. Ninety-five per cent of respondents gave positive comments about the programme, examples of which were:

> ***'[The programme is] an excellent system giving the confidence and knowledge to allow personal management [of my diabetes].'***

> ***'During discussion, it was helpful when all types of questions were asked, giving [me] more angles to consider.'***

Of the negative comments received by 5% of respondents, two were as follows:

> ***'[The programme] should be run in the evening for working people.'***

> ***'[I] would have liked a sheet of exercises on reducing [a] patient's waistline.'***

Discussion

Advantages

Moving the programme into primary care locations is advantageous because people with diabetes are seen in a relaxed friendly environment in the community. Group numbers are smaller (8–10) and therefore the groups are more interactive. Patients are encouraged to use their own biomedical data to set their own goals.

Large group sizes at the hospital-based 'First Focus' sessions may have discouraged some people from returning for subsequent sessions. People newly diagnosed with type 2 diabetes are now seen in a 3-week programme of education with a medical review at 3 months by the GP.

There is also more consistency, with one nurse diabetes educator and one community dietitian involved, enabling a more personal relationship to develop between the person

First Focus Diabetes nurse educator	Experience of diagnosis What does he/she want to know? Feelings and reactions to his/her diagnosis What is diabetes? – Causes – Symptoms – Monitoring – Treatment Benefits of regular exercise Sugar quiz
Focus 2 Community dietitian	**One week after First Focus** Intensive dietary advice, focusing on improving blood glucose control, reducing risk of cardiovascular disease, and weight reduction
Focus 3 Diabetes nurse educator	**Two weeks after First Focus** Complications of diabetes and foot care Goal setting for lifestyle changes Continued support regarding monitoring
Medical review	**Three months after First Focus** Medical assessment by GP: – screening for complications – review of medication

Figure 3. The content of the primary care education programme.

Table 1. Participants attending the primary and secondary care-based programmes between February 2003 and February 2004

	Royal Bournemouth Hospital	PCT1	PCT2
Number of patients	540	230	228
Mean age (range)	66 (21–96)	66 (29–94)	66 (31–92)
Male	313 (58%)	140 (61%)	114 (50%)
Female	227 (42%)	90 (39%)	114 (50%)

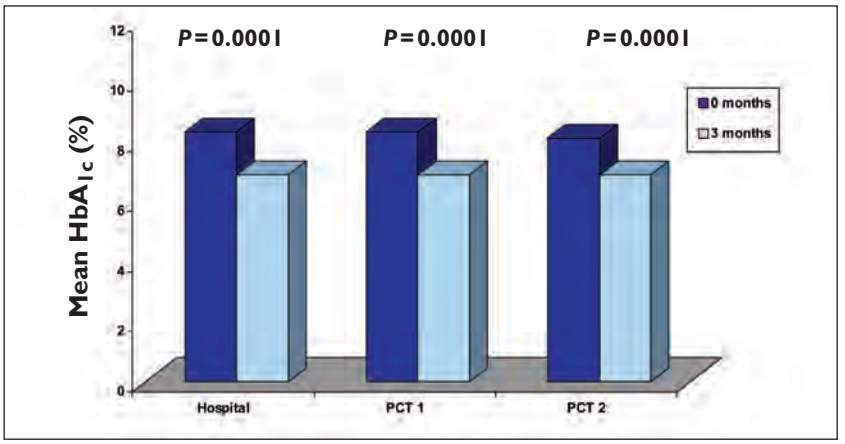

Figure 4. HbA_{1c} (%) at diagnosis (0 months) and after 3 months.

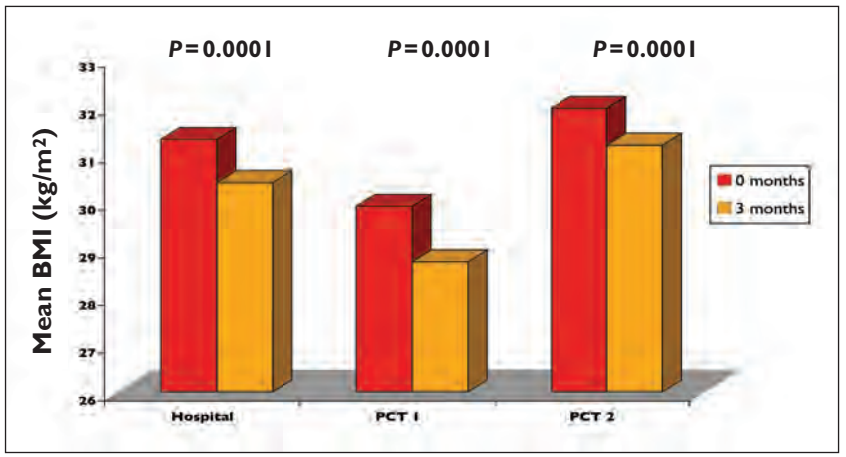

Figure 5. Body mass index (kg/m²) at diagnosis (0 months) and after 3 months.

with diabetes and the diabetes nurse educator.

Previously, a common complaint from attendees at the hospital programme was the cost of public transport, and car parking was always quite difficult at the hospital. Parking is much easier in the community and parking at leisure centres is free.

Free parking at the community venue encourages people with diabetes to attend the education programme.

Disadvantages

Funding has been an issue in one of the PCTs with the transfer of the programme to primary care. Funding is not clearly defined and varies between the PCTs. There have also been some staffing issues, and hospital staff have helped to cover annual leave/sickness.

In the original programme, the diabetes nurses in the hospital had immediate access to an electronic pathology system. In the community, the educators do not have this facility and are fully reliant on the information supplied on the referral form. Furthermore, in the primary care setting, there is no doctor at hand to help with any queries.

The original Bournemouth hospital programme was always audited annually and data were collected on a computerised database. Since the transfer from secondary care to primary care, data collection has been maintained, but it is carried out manually, is not entered on to a central database and varies between the PCTs. It is vital to have consistency in data collection and clincial outcomes need to be measured to ensure the programme continues to be effective. This has become more difficult in the community as data collection systems may vary.

There are also different points of contact for the patients depending upon the PCT.

Conclusion

Structured education is an important aspect of diabetes care. Here, we have successfully transferred a well-established education programme to the community without affecting clinical outcomes. ■

Acknowledgment

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