

Delivering diabetes care to ethnic groups: A pilot general practice survey

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Article points

1. Ethnic groups (EGs) have higher rates of type 2 diabetes and comorbidities than the general population.
2. Delivery of diabetes care to EGs is challenging because of cultural, communication and comprehension difficulties.
3. This pilot study of current diabetes service provision to EGs in four GP practices in Coventry highlighted areas of need.
4. Recommendations for improving diabetes care for EGs include cultural competence training for staff, better resources, and more effective diabetes networking among GP practices.

Key words

- Cultural sensitivity
- Ethnic groups
- Pilot study
- Type 2 diabetes

Author's details can be found at the end of the article.

Most ethnic groups (EGs) in the UK have an increased risk of type 2 diabetes and associated comorbidities. Many live in socially deprived areas and have high levels of illiteracy, which may impede access to diabetes care. However, little is known about the cultural issues and challenges facing primary care service providers and the additional resources needed to deliver diabetes care to EGs. This pilot study aimed to elicit an understanding of current GP practice regarding EGs, using a specifically developed survey questionnaire to highlight areas of need. Findings show that practices work autonomously but are conscious of the need to deliver high-quality diabetes care (by employing staff speaking some EG languages, for example) and identified a lack of resources and culturally sensitive awareness to meet EGs' needs. Recommendations for improving service provision to EGs include cultural competence training for staff, better resources to support a streamlined service within practices, and effective diabetes networking among GP practices.

Diabetes is a chronic, metabolic, and usually lifelong, condition, making it a major health issue. Characterised by increased morbidity and mortality resulting from related complications – especially cardiovascular, renal and neurological – it represents a lifelong learning process for people with diabetes and healthcare professionals alike. Diabetes also has major social and economic implications for the NHS (Department of Health [DH], 2003; Roberts, 2007) because of the considerable costs associated with the management of these complications.

The prevalence of diabetes is increasing rapidly, both locally and nationally, especially among ethnic groups (EGs), who are particularly susceptible to the condition (Barker, 2006; Barnett et al, 2006).

In Coventry, the recorded diabetes prevalence in 2006 was approximately 3.5% (around 12 000 people), with higher rates in EGs (up to three times higher in African-Caribbean people and six times higher in people of south Asian origin) compared with the majority white population (Barker, 2006). The number of people from EGs with diabetes is unknown.

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1. Ethnic groups (EGs) have poorer disease management, low adherence to treatment and medications, poor outpatient attendance and poor glycaemic control.
2. Anecdotal evidence suggests that GP practices find it difficult to access the resources necessary to meet the diverse needs of their patients.
3. The aim of this pilot study was to identify how local practices deliver diabetes services to people from EGs with diabetes, in particular those of south Asian origin (Indian, Pakistani and Bangladeshi), and also to discover what additional resources are needed to improve the service provided.
4. Four GP practices in Coventry (three with high numbers of EGs and one with high performance based on the QOF) were surveyed by means of a questionnaire to identify how local practices deliver diabetes services to people from EGs with diabetes.

Coventry is a typical UK city, with relative affluence alongside pockets of severe deprivation. Most EGs live in socially deprived areas with higher levels of illiteracy and insufficient knowledge of the English language, diabetes and the healthcare system, which may impede access to diabetes care (Bellary and Barnett, 2007).

There is widespread recognition of the benefits of managing diabetes in primary care settings and also by referral to hospital-based diabetes clinics (Goyder et al, 1998; Khunti et al, 2000; Rhodes et al, 2003; O'Connell, 2006). However, preliminary evidence reveals two main areas of concern:

1. The quality of healthcare delivered to EGs by healthcare professionals is inadequate (Johnson et al, 2000), primarily because there is a strong cultural element associated with the provision of care to EGs and some NHS staff are not sufficiently culturally competent.
2. Compliance with instructions for diabetes management by people from EGs is poor (Johnson et al, 2000): they have poorer disease management, low adherence to treatment and medication, poor outpatient attendance and poor glycaemic control.

Moreover, anecdotal evidence suggests that GP practices find it difficult to access the resources necessary to meet the diverse needs of their patients. This article describes a survey of four GP practices in Coventry undertaken to gain an understanding of current service provision for EGs and to highlight areas of need.

Aim of the study

The aim of this pilot study was to identify how local practices deliver diabetes services to people from EGs with diabetes, in particular those of south Asian origin (Indian, Pakistani and Bangladeshi), and also to establish what additional resources are needed to improve the service provided. The findings could potentially influence practice both locally and nationally.

Evaluation design

Following consultations with an expert focus group, a quantitative method, using a semi-

structured questionnaire (25 questions), was employed for data collection.

Methods

A variety of techniques were used to design the semi-structured questionnaire; the investigator (PZ) assumed the role of a "critical friend" to improve and enhance the overall design. The 25 questions were devised by the investigator, following three structured, quarterly meetings held to ensure that the questions were both meaningful and practical to complete.

The quarterly meetings were hosted by Edgwick Medical Centre, Coventry, which has a very high number of south Asian people. Meetings were attended by one GP, a consultant in public health, a diabetes specialist nurse (DSN), a community project facilitator, a practice nurse, a practice manager, a patient representative from one of the target EGs, plus the investigator.

A purposive sample of four inner-city GP practices in Coventry (three with high numbers of people from EGs and one with high performance based on the QOF) was selected. Lunch meetings and presentations were organised at each practice (except the host practice) and were open to all staff members. There was at least one GP present during each meeting.

In each practice, a questionnaire designed to evaluate the services was given to the practice manager, who was considered likely to provide an objective overview of the care provided. The questionnaire sought information on diabetes cases, diabetes service delivery to EGs, the staff's diabetes skills and knowledge, additional resources needed, and commonly encountered cultural problems.

The questionnaire was piloted at the four practices between September 2008 and February 2009. Three of the four practices returned their questionnaires within 3 weeks and the other within 3 months.

The collected data were initially analysed by the investigator and subsequently analysed independently by two colleagues from the Warwickshire Institute for the Study of Diabetes, Endocrinology and Metabolism research team. A

meeting was held and results were compared to ensure agreement.

Results and analysis of the findings

The data collected highlight both positive and negative outcomes from six emerging themes:

- Diabetes prevalence within each practice.
- Staffing level.
- Language and communication.
- Knowledge and training.
- Cultural issues.
- Diabetes services and policy.

The findings are discussed in detail below.

Prevalence of diabetes

Within the four practices – designated A, B, C and D – there was a total of 1142 people with

diabetes (A = 208, B = 440, C = 168 and D = 326; *Figure 1*). Of these, 965 were from EGs (84.5%). This high proportion of EGs is due to the fact that three of the four practices are located in Foleshill, an area with a high concentration of south Asian people.

Of the 965 people with diabetes from EGs, 947 (98.1%) had type 2 diabetes (A = 189, B = 406, C = 30 and D = 322). This supports current epidemiological data showing that prevalence of type 2 diabetes is increasing at a faster rate in the UK (74%) than in the US (41%) (González et al, 2009). *Figure 1* shows the proportions of people from EGs with type 2 diabetes and other people with any form of diabetes in each of the four practices, expressed as numbers and percentages.

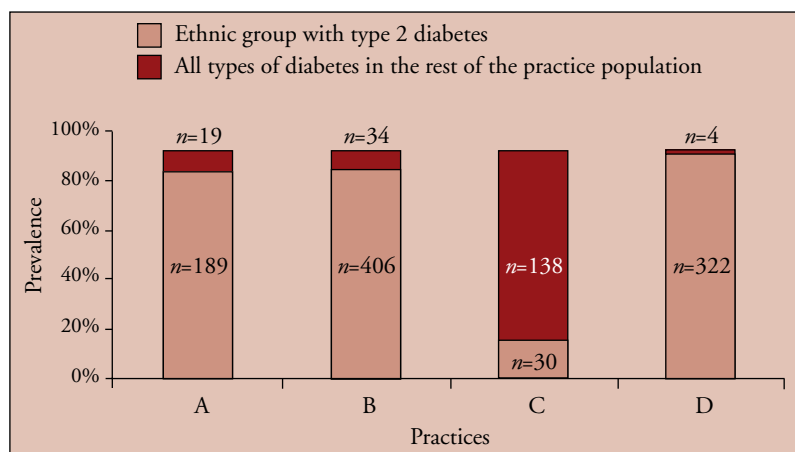


Figure 1. Comparison of the prevalence of type 2 diabetes in ethnic groups with the prevalence of all types of diabetes in the rest of the practice population in each of the four GP practices.

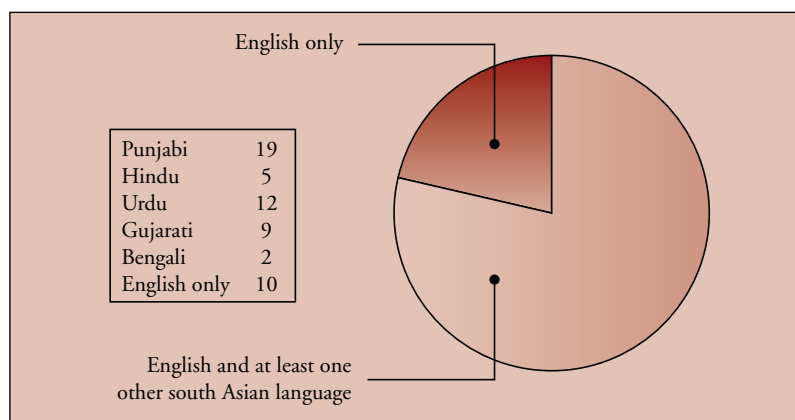


Figure 2. Distribution of staff speaking south Asian languages and those speaking English only, in the four GP practices.

Staffing

The four practices had 47 staff (A = 9, B = 13, C = 12 and D = 13), of whom 11 (23.4%) were full time. Of the 47, 37 (78.7%; A = 9, B = 13, C = 2 and D = 13) spoke one or more of the south Asian languages. Again, this can be attributed to the fact that the three practices in Foleshill would have felt the need to recruit more staff who could speak the languages understood by their patients (*Figure 2*).

Knowledge and training

The training and knowledge level of staff leading diabetes care reported by the four practices was generally very good. All four practice managers stated that their GPs receive up-to-date diabetes information from various sources: in-house training from GPs with special interest in diabetes (GPSIs) and hospital consultants, clinical meetings, reading relevant journals, and attending formal courses during study days. Also, all four practices had a lead nurse for diabetes who had undertaken formal training leading to a qualification in diabetes care and who continued to receive updates in diabetes.

However, three of the four practices did not know whether Coventry had a central register for diabetes. The reason for this may be that it is not currently mandatory for practices to report the number of diabetes cases to the

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Coventry PCT or Strategic Health Authority. A central register would be useful for providing data on the number of people with diabetes, which could be used to assist with planning the service.

Language and communication

Language is a means of communication, and effective communication in healthcare delivery, whether through language or non-verbal communication methods, is paramount. Communication can be a complex issue, especially where people speak different languages; it requires an understanding not only of language but also of culture.

Anecdotal evidence suggests that a high proportion of the south Asian population in Coventry, especially those living around Foleshill, do not understand English. Effective communication therefore requires the use of their native languages. Five south Asian languages (Punjabi, Hindi, Urdu, Gujarati and Bengali) were identified as commonly spoken in Coventry. The proportion of these languages spoken by the 47 staff was as follows: Punjabi (19), Hindi (5), Urdu (12), Gujarati (9) and Bengali (2) (*Table 1*).

One practice had staff who spoke all five languages between them. No staff from the other three practices spoke Bengali, so they had to rely on hired translators. Three of the four lead nurses for diabetes spoke at least one south Asian language (not Bengali or Urdu) and would therefore need translators for effective communication with people whose languages they did not speak. This is exactly what was achieved in three practices where they had designated translators/interpreters for the languages.

Cultural issues

Relatively few studies have explored possible cultural barriers and lack of cultural competencies by healthcare professionals, which may hinder the delivery of quality diabetes care in the UK (Crowley, 2000; NICE, 2003; Goenka et al, 2004). Healthcare professionals need to be aware of differences between the dominant culture and that of the target patient group, i.e. they should take account of the individual's background and deliver care and services in a way that is perceived to be non-discriminatory (Cone et al, 2003). Lack of cultural competencies by some staff has been cited in studies, especially in the USA, as a significant barrier to high-quality care for EGs (Hawthorne and Tomlinson, 1999; Cone et al, 2003; Mainous et al, 2006).

In the present pilot study, the major cultural issues listed by practices included language barriers, misconceptions and misunderstanding about diabetes, low literacy rate, poor understanding of how the human body functions, lack of confidence with medications, lack of adherence with

medications, high “do not attend” rates for clinics, and poor diet control.

These findings support previous studies that found cultural differences in language, faith, traditional beliefs and lifestyle (Cone et al, 2003; Mainous et al, 2006). The *Audit Commission Patient Survey* (Healthcare Commission, 2004) also highlighted significant gaps in patient knowledge, understanding and confidence in managing diabetes, which were substantially more pronounced for people from EGs than for the white population.

Patient services and policy

The national minimum gold standards for the management of diabetes are set out in the *National Service Framework (NSF) for Diabetes: Standards* (DH, 2001). Standard 3, for example, states that:

“All children, young people and adults with diabetes will receive a service which encourages partnership in decision-making, supports them in managing their diabetes and helps them to adopt and maintain a healthy lifestyle. This will be reflected in an agreed and shared care plan in an appropriate format and language. Where appropriate, parents and carers should be fully engaged in this process.”

To put this Standard into practice, people with diabetes need the knowledge, skills, and motivation to assess their risks, to understand what they will gain from changing their behaviour or lifestyle and to act on that understanding by engaging in appropriate behaviours. In effect, this Standard encourages partnership in decision-making between the individual and the service provider, hence the recommendations from the NICE (2003).

NICE (2003) recommends “structured education programmes” as key interventions, and specifies that these must be systematic, formal and structural and be made available to everyone with diabetes at the time of initial diagnosis, and then as required, based on formal and regular assessment of need.

NICE also clearly specifies that the education sessions should be accessible to all people with diabetes and should include cultural, ethnicity and geographical issues. People with diabetes need accurate and consistent information and training for the management of their condition from multidisciplinary healthcare professionals, to empower them by giving them the skills and knowledge to take control and integrate self-management into their daily lives. This should be conveyed to them in a medium that they understand. It is therefore important for healthcare professionals to work in partnership with one another to deliver a joined-up, integrated service, based around the needs of the individual (Diabetes UK, 2004).

Although all the practices in the present study had a practice protocol for diabetes care, there were disparities in diabetes care delivery, as each practice tended to design their diabetes services according to the resources available. For example, two practices had an insulin conversion service; no practice had a patient group education service, but one was intending to start one within a week. The other three practices expressed an interest in EG education services but would need additional resources, such as training, funding, support and space.

Two practices stated that they would consider running services for EGs with diabetes both as practice-based only and as a locality-based service. One practice said it would consider doing so as a practice-based service only; another practice said it would not

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1. NICE (2003) recommends “structured education programmes” as key interventions; these must be systematic, formal and structural, and be made available to everyone with diabetes at the time of diagnosis, and then as required, based on need.
2. NICE also clearly specifies that the education sessions should be accessible to all people with diabetes and should include cultural, ethnicity and geographical issues.
3. Three practices expressed an interest in providing education services for EGs but would require extra resources to start these, such as training, funding, support and space.

Table 1. Number of staff speaking one or more south Asian languages.

Language	GP practice				Total
	A	B	C	D	
Punjabi	2	11	2	4	19
Hindi	0	1	0	4	5
Urdu	6	1	0	5	12
Gujarati	1	5	0	3	9
Bengali	0	0	0	2	2
Total	9	18	2	18	47

“To support effective diabetes commissioning, practices should record the ethnicity of all people with diabetes at practice level, and also report these data centrally. This would assist in the planning and commissioning of diabetes services locally as well as nationally.”

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Acknowledgements

I would like to express my gratitude to the following people for their advice, help and support: Professors Richard Baker and Andrew Wilson, and Dr Ged Murtagh, of Leicester University; my family, friends and colleagues, in particular Brenda Zeh, Dr Marinus Fonge, Sundeep Due, Louise Halder, Jackie Cox and Saima Ali; and Professor Sudhesh Kumar, Dr Ann-Marie Cannaby and Ms Ceri Jones of University Hospitals Coventry and Warwickshire NHS Trust. I am indebted to Takeda Pharmaceutical Limited, in particular Lorraine Barr and Michele Stallard, who provided an ex-gratia patient benefit grant for this project, and the Expert Group, in particular Dr Kumkum Mishra, who hosted the quarterly meetings; and staff at the four GP practices, who freely and willingly participated in the pilot study.

consider doing so either as a practice-based or a locality-based service, but would rather do it on an individual basis, perhaps tailored to the individual's needs. EG attendance at clinic appointments was >50% in three practices and <50% in the other practice.

These findings show that although the practices work autonomously, they were all conscious of the need to deliver high-quality diabetes care (by employing staff who speak some EG languages, for example). Lack of resources and culturally sensitive awareness to meet these patients' needs was also identified.

To mitigate these issues, practices need to liaise with one another to share good practice. They also need to ensure that the NSF recommendations regarding diabetes structured and formal education programmes are implemented, either on a one-to-one or group basis. Where these services are not available within a practice, people from EGs with diabetes (especially those newly diagnosed) should be referred on elsewhere.

Limitations

Although this was a pilot survey with a small sample size (four of the 63 GP practices in Coventry), it is representative of the population under investigation. The fact that the questionnaire had mostly closed questions may not have given participants the opportunity to expand on their responses. However, this is the essence of quantitative studies, which aim to chart results rather than providing a deep understanding of the topic.

Practice managers were asked to complete the questionnaires; responses were therefore based on their perceptions of the service provided by their practice. Gaps were identified in certain questions, so the questionnaire will be refined before the main survey, to ensure that all areas are covered. All 63 GP practices in Coventry will subsequently be invited to complete one questionnaire each.

In addition, the investigator gave a presentation in three of the four practices before handing a questionnaire to the practice manager for completion, which may have

contributed to the 100% response rate. This has been one of the strengths of the exercise.

Conclusions

The prevalence of type 2 diabetes is set to continue to rise, especially in EGs, who are particularly susceptible. This is expected to place an ever-increasing burden on families and the healthcare system. Studies have shown that better education and information both for people with diabetes and for staff are pivotal in promoting high-quality diabetes care (National Resource Centre for Ethnic Minority Health and Scottish Diabetes Group, 2004; O'Neill, 2005). However, language barriers and associated cultural issues mean that people from EGs with diabetes have more problems managing their condition.

There was evidence of disparity in diabetes care service delivery among the four practices and the issues that staff face in dealing with cultural issues, including lack of resources. It is therefore important that NHS staff receive cultural competence training to ensure that diabetes care is provided in a culturally sensitive manner.

Employers should ensure that adequate resources are in place to support a streamlined service within their practices to minimise inappropriate referrals to secondary care. Establishing effective diabetes networks between practices to share good practice could be one way forward.

These recommendations will not only benefit people with diabetes, but will also improve job satisfaction among staff and ensure that the diverse needs of the UK population are met, as set out in both the NSF for diabetes and the NHS Constitution (DH, 2001; 2010).

To support effective diabetes commissioning, practices should record the ethnicity of all people with diabetes at practice level, and also report these data centrally. This would assist in the planning and commissioning of diabetes services locally as well as nationally. Those responsible for planning and delivering diabetes services should have policies that address the needs of EGs and the diverse communities across the UK. ■

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