Practice point

Structured diabetes patient education in Scotland

Dr Joan McDowell
PhD, MN, Diploma in Nursing, RN, SCM, DN, Senior Lecturer, College of Medical, Veterinary & Life Sciences, School of Medicine, Nursing & Health Care, Glasgow, UK

Professor Sandra MacRury
MBChB, MD, FRCP, Consultant Diabetologist, Raigmore Hospital, Inverness, UK

Correspondence to:
Dr Joan McDowell, Senior Lecturer, College of Medical, Veterinary & Life Sciences, School of Medicine, Nursing & Health Care, 57–61 Oakfield Avenue, Glasgow G12 8LL, UK; email: Joan.McDowell@glasgow.ac.uk

Received: 31 October 2014
Accepted in revised form: 16 December 2014

Abstract

This article describes how Scotland is addressing the need to review structured diabetes education to support self-management and record this on the national database.

A National Education Coordinator (NEC) was appointed to lead the development of structured diabetes education. The NEC was supported by an education lead from the 14 health boards and representation from paediatric, minority ethnic and patient groups.

Through literature searching, discussion, workshops and a consensus approach, the criteria for structured patient education were developed appropriate for the Scottish context.

A process to review education programmes was established and reviewers trained in this role. Reviewers are professionals, patients and carers. Recording of education on the database utilises the process of education delivery. A website has been developed to host educational resources and signpost people to other appropriate information.

Four reviewed education programmes meet structured patient education criteria. Patients attending these programmes have their attendance recorded on the national database. The website is regularly sourced.

It was concluded that Scotland has a process to review patient education programmes as to whether they meet structured education criteria, and a process to record attendance at this education on its national database; the website continually updates staff and patients on educational initiatives. Copyright © 2015 John Wiley & Sons.


Key words
diabetes; patient education; Scotland

Introduction

This article describes how Scotland is addressing the need to review structured diabetes patient education programmes to accord with NICE criteria and thus to provide increased access to support self-management.¹

The definition of structured patient education has been derived from randomised controlled trials in patient education and states that it is: ‘A planned and graded programme that is comprehensive in scope, flexible in content, responsive to an individual’s clinical and psychological needs and adaptable to his or her educational and cultural background.’²

The Department of Health and Diabetes UK determined the necessary criteria for structured patient education³ (Table 1); however, this was not directly transferable to the Scottish context.

There are 14 health boards in Scotland (Figure 1) who work autonomously. Some utilise UK-wide diabetes education programmes while others have developed their own patient education.

A process has therefore been developed that supports the review of education programmes as meeting the criteria for structured patient education.⁴ Once reviewed, education programmes are coded on the Scottish Care Information – Diabetes system⁵ (SCI-Diabetes), part of Scotland’s national suite of information technology products designed to underpin the managed clinical networks (MCNs) for diabetes within each of the health boards. An annual report is produced on a variety of diabetes parameters, and the offer to attend and participation in structured patient education are now included in this.⁶

Scottish context

Within the UK, health is a devolved issue to the Scottish Parliament and the Scottish Government has ambitious plans for integrating health and social care systems. The Healthcare Quality Strategy for NHS Scotland⁷ and its implementation plan⁸ set the strategic direction for the integration of services. There is a focus on: prevention, anticipation and support for self-management; reducing the length of hospital inpatient care; actively supporting care in the community; and putting people at the centre of decision making regarding their
care with the aim of ensuring quality and safe care.

The Scottish Government’s self-management strategy for people living with a long-term condition aims to ensure people have access to the support and resources needed for self-management and to empower them to make any adjustments necessary to their lifestyle. One aspect of support is learning about your own condition, and so patient education is a key component of the long-term conditions strategy.

SCI-Diabetes supports diabetes care and management within the MCNs of each of the 14 health boards and provides a fully integrated shared electronic patient record. Ten years of annual surveys demonstrate the trajectory of various clinical parameters. People with diabetes can also view their own data held on SCI-Diabetes through an interactive website to support people with diabetes and their families.

Diabetes patient education in Scotland

The Scottish Diabetes Action Plan set the key direction for diabetes care for the forthcoming three years. A key commitment articulated in the Plan was that all patients would ‘have access to structured education programmes that are quality assured, in line with NICE criteria’ so that ‘education will be improved at a local level’. Clinical records were to document patient participation in self-management programmes that would be uploaded onto SCI-Diabetes.

Many UK-wide programmes of structured patient education are implemented within Scotland, e.g. DAFNE, DESMOND, X-PERT Diabetes. However, most of the 14 health boards have developed their own person-centred educational programmes to meet specific local needs that may be: geographical, e.g. remote and rural areas; disease specific, e.g. gestational diabetes; or content specific, e.g. people with type 2 diabetes commencing insulin therapy. In 2013, there were 24 courses being delivered to groups of people with diabetes that were not considered to meet the criteria for structured patient education. Such programmes had been developed within the broad scope of the NICE criteria (Table 1); however, there were some obvious omissions, e.g. philosophy of care, overall aims and outcomes of programmes. There was therefore a need to develop a process whereby patient education could be reviewed as meeting the NICE criteria and thereafter recorded as structured education on SCI-Diabetes.


| Philosophy of education |
| An evidence-based curriculum meeting the needs of an individual |
| Aims and learning outcomes that support self-management |
| Delivered by a trained educator with an understanding of educational theory |
| Quality assured and audited |

Figure 1. Map of Scotland’s 14 regional health boards

Strategic direction

A National Education Coordinator (NEC) was appointed for two years to undertake this work (2011–2013). A steering group supported the NEC as well as an education lead from each of the 14 health boards who was also responsible for informing colleagues of the work. There was representation from paediatric and minority ethnic groups as well as service users who all actively contributed to the work.

- A review of the literature was undertaken by the NEC, multidisciplinary education leads, people with diabetes, and representatives from the paediatric and minority ethnic groups. A consensus approach was adopted to determine the key essential criteria for meeting the NICE criteria.
- Individuals reviewed the literature independently. A total of three workshops were conducted over nine months. At the first workshop, educational leads reviewed key criteria from the literature and a general consensus was achieved about what was essential to meet the NICE criteria.
- Subsequently, educational leads consulted with their colleagues to achieve consensus and submitted their responses electronically to the NEC.

Collated responses
were reviewed at the second workshop and key criteria further refined.11 A process for assessing educational programmes was developed and the entire key criteria and processes were agreed at a third multidisciplinary workshop that included people with diabetes.4,11

- Due to the difficulties in determining what made someone a trained educator, an in-depth analysis was undertaken to determine key criteria by the NEC in consultation with other professionals. This included:
  - Scoping of National Occupational Standards, focusing on those that were appropriate for teaching others and teaching patients12 in consultation with Skills for Health.
  - Reviewing competency frameworks in diabetes.13
  - Review of diabetes nurse specialists’ job descriptions at different bands in Agenda for Change.14
  - Review of educational requirements for general practitioners15 and other inter-professional documentation.
  - The steering group reviewed papers prepared by the NEC and verified the outcomes.
  - Criteria for a trained educator were identified (Table 2).

Agreement was therefore reached on how the NICE criteria could be applied to the Scottish context and to the variety of educational programmes currently offered.

Preparing for implementation

A process was established whereby the education lead can submit the patient education programme to the Diabetes Education Advisory Group15 (DEAG) for review as meeting the criteria as structured patient education.16 The Scottish Diabetes Group,17 of which the DEAG is a sub-group, is a national steering group that coordinates the implementation of the Scottish Diabetes Action Plan.1 The role of the DEAG is identified in Table 3. Under the DEAG’s remit to support educational programmes, the group now coordinates the review of submitted educational programmes, approves the outcome and, thereafter, ensures that approved programmes are recorded on SCI-Diabetes. Reviewers were identified by each education lead, the Diabetes Care Focus Group18 and the Public Health Directorate in Scotland’s largest health board using agreed criteria (Table 4). The NEC trained 28 reviewers from nine health boards and these include people with diabetes, carers or professionals.4 A total of three people review submitted programmes of whom one is a patient/carer and one a health professional.

Recording structured patient education

Previous work on services to support people with type 1 diabetes19 had identified three different levels of patient education:

- Level 1: basic skills at diagnosis
- Level 2: content on living with diabetes
- Level 3: on managing diabetes

These levels were based on educational content, were specific to people with type 1 diabetes and had been accepted, in principle, as a way of organising patient education. However, as education is flexible to meet patients’ needs, there will be some fluidity between these levels.

Through consultation and consensus with patients, professionals and the SCI-Diabetes development team, the three levels have been re-defined to address the method by which education is delivered. The new levels are therefore applicable to people with diabetes, regardless of the type of diabetes, and education according to level can be recorded on SCI-Diabetes.

- Level 1 now refers to education that is delivered on a one-to-one basis at diagnosis of diabetes. Suggested core content has been described.4
- Level 2 refers to ongoing education. This may be delivered on a one-to-one basis or in a group context; however, the person with diabetes only attends the session that interests them as the entire programme is based on ongoing education. Examples of the curriculum


<table>
<thead>
<tr>
<th>Aims and objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• To advise the Scottish Diabetes Group on the educational needs of professionals to deliver diabetes care</td>
</tr>
<tr>
<td>• To facilitate development of relevant educational resources for health professionals delivering diabetes care</td>
</tr>
<tr>
<td>• To interact with and contribute to the Scottish Diabetes Group sub-groups and any other relevant organisations in relation to diabetes education</td>
</tr>
<tr>
<td>• To support educational programmes in any field or discipline relating to diabetes</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Aim and objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Write a philosophy of education</td>
</tr>
<tr>
<td>• Write aims and learning outcomes</td>
</tr>
<tr>
<td>• Identify training and educational opportunities</td>
</tr>
<tr>
<td>• Identify patients’ and carers’ learning and developmental needs</td>
</tr>
<tr>
<td>• Develop an educational session that engages and supports patients in their learning and development</td>
</tr>
<tr>
<td>• Deliver an educational session that engages and supports patients in their learning and development – including presentation skills, facilitation of learning and development, questioning skills</td>
</tr>
<tr>
<td>• Prepare and use PowerPoint slides/overheads/visual resources as part of an educational session</td>
</tr>
<tr>
<td>• Teach a skill, e.g. blood glucose monitoring</td>
</tr>
<tr>
<td>• Manage learning and development in groups</td>
</tr>
<tr>
<td>• Evaluate the learning of patients after an educational session</td>
</tr>
<tr>
<td>• Improve learning and developmental provision</td>
</tr>
<tr>
<td>• Reflect on, develop and maintain own skills and practice in learning and development</td>
</tr>
</tbody>
</table>

Reference:

For more information, see the following resources:

1. Diabetes Education Advisory Group (DEAG)
2. National Diabetes Audit (NDA)
3. Scottish Public Health Dietetic Group (SPhDG)
4. Scottish Diabetes Group (SDG)
5. Public Health Directorate (PHD)
6. Agenda for Change (A4C)
7. Scottish Intercollegiate Guidelines Network (SIGN)
8. Scottish Intercollegiate Guidelines Network (SIGN)
9. Scottish Intercollegiate Guidelines Network (SIGN)
10. Scottish Intercollegiate Guidelines Network (SIGN)
11. Scottish Intercollegiate Guidelines Network (SIGN)
12. Scottish Intercollegiate Guidelines Network (SIGN)
13. Scottish Intercollegiate Guidelines Network (SIGN)
14. Scottish Intercollegiate Guidelines Network (SIGN)
15. Scottish Intercollegiate Guidelines Network (SIGN)
16. Scottish Intercollegiate Guidelines Network (SIGN)
17. Scottish Intercollegiate Guidelines Network (SIGN)
18. Scottish Intercollegiate Guidelines Network (SIGN)
19. Scottish Intercollegiate Guidelines Network (SIGN)
content are in the Reviewer’s Handbook.4 • Level 3 refers to any education that is delivered to a group of people. Currently, DAFNE, DESMOND, and X-PERT Diabetes are examples. While the target audience of these programmes may be people newly diagnosed with diabetes, the programme is delivered to groups of people and so meets Level 3 criteria. Any group education programme is considered to be Level 3 and hence people with diabetes may undergo several Level 3 programmes, e.g. carbohydrate counting, weight reduction.

Health care professionals now record on SCI-Diabetes structured education offered and/or undertaken according to the type of diabetes (Table 5), level of education and, at Level 3, the name of the programme.

Implementing the review process

The process was piloted with one, well-established education programme and one team of professionals and patient reviewers from a health board. The NEC worked with the education lead from the pilot site to assist in the preparation of the necessary documents. One issue identified was the lack of a philosophy of education and patients’ involvement in this. The clinical team were able to verbally articulate their philosophy of education and care; however, they had not inserted this in their programme handbook. The wording for the philosophy was agreed with the education lead and the NEC. At the next educational programme, patients were informed of the philosophy. At the end of the educational programme, patients were asked to comment on the philosophy and whether or not it had been evident throughout the programme. Patients endorsed the philosophy and it was inserted into the programme handbook and promoted through relevant literature.

Another issue was providing the evidence of being a trained educator. Staff were able to address this through some of their evidence required for their annual appraisals. Developmental needs were identified through this process and this was construed as a positive outcome.

The pilot of the process highlighted the need for consistency in approach for those submitting their programme. A successful outcome was achieved, and this programme now meets the criteria for structured patient education.

To date, four educational programmes now meet the NICE criteria and currently another two are being reviewed. Scotland now has a process whereby we can record uptake of patient education on our national database and report this in our annual survey on diabetes.

Challenges

Professionals working in diabetes need knowledge and skills both in diabetes and how to educate others. People living with diabetes need education appropriate to their type of diabetes and stage of life. To support professionals’ educational needs and to signpost them to appropriate resources, a website was launched in June 2013.20 The website also signposts and links to resources for people with diabetes related to educational aspects. Such resources may be a reviewed educational programme, or signposting to educational tools to support education. Key documents and literature are identified. The website provides a resource and network to support education in diabetes.

The structure for recording patient education has highlighted education provision across Scotland and where there are gaps in provision. There are challenges with demonstrating Level 1 education as meeting the criteria when education is delivered on a one-to-one basis. Quality assurance of such education is challenging, especially in remote and rural areas where there are interwoven relationship issues.

There are challenges in developing programmes for education to address ongoing educational needs of people with diabetes. This is particularly so when people dip in and out of educational provision to meet their clinical needs and, hence, quality assurance and audit aspects are difficult to achieve.

There are also challenges as more MCNs adopt group education to address more and more specific clinical needs, e.g. pump education. The paediatric community are also challenged in adopting child learning theories to implement their educational programmes.

All of these challenges form the basis for ongoing developmental

---

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Actively involved in delivering patient education to people with diabetes or a person living with diabetes who is actively involved in self-management and relates well to others</td>
</tr>
<tr>
<td>• Is a trained educator or a person living with diabetes who demonstrates the ability to educate others – not necessarily in diabetes</td>
</tr>
<tr>
<td>• Has the capacity for undertaking reviews</td>
</tr>
<tr>
<td>• Has a collegiate approach</td>
</tr>
<tr>
<td>• Has a strategic approach to care</td>
</tr>
<tr>
<td>• Commands the respect and integrity of their colleagues</td>
</tr>
<tr>
<td>• Is willing to commit as a reviewer for a minimum of 3 years</td>
</tr>
<tr>
<td>• Is willing to undergo training to be a reviewer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type 1 diabetes mellitus</td>
</tr>
<tr>
<td>• Type 2 diabetes mellitus</td>
</tr>
<tr>
<td>• Gestational diabetes mellitus</td>
</tr>
<tr>
<td>• Maturity-onset diabetes of adulthood</td>
</tr>
<tr>
<td>• Maternally inherited diabetes and deafness</td>
</tr>
<tr>
<td>• Neonatal diabetes (permanent)</td>
</tr>
<tr>
<td>• Pancreatic pathology</td>
</tr>
<tr>
<td>• Secondary – drug induced</td>
</tr>
<tr>
<td>• Secondary – disease</td>
</tr>
</tbody>
</table>

---
work across Scotland. There is scope to rationalise educational provision, once all 24 courses have been reviewed, and to incrementally develop other programmes to be implemented nationally but meeting specific needs, e.g. gestational diabetes.

Diabetes educators in Scotland are challenged to ensure that their patient-centred education programmes meet the criteria for structured education. Staff who deliver patient education need to ensure that they meet the criteria for being a trained educator and that they have the knowledge and skills to facilitate learning and self-management in people with diabetes. Methods to acquire and develop these skills are signposted on the newly-created website. All staff have a professional responsibility to update their own skills to ensure that they are fit for practice.

Conclusion

Through a consensus approach, Scotland has developed a sustainable process whereby evolving education programmes for people with diabetes can be reviewed as meeting the NICE criteria for structured patient education. People who attend reviewed programmes of education have their attendance recorded on Scotland’s national database, SCI-Diabetes, which is visible to health care professionals and patients alike. There is yet more work to be done around the gaps in educational provision and in sharing programmes across other MCNs to reduce duplication of work. The diabetes community in Scotland has embraced the education component of the Diabetes Action Plan, and are able to demonstrate significant progress in achieving the goal of increasing the quantity and quality of structured patient education.

Acknowledgements

The authors wish to acknowledge the participation of the education leads in each of the 14 health boards in Scotland, the minority ethnic representatives, the paediatric representative, patient and carer’s representatives, and the NEC Steering Group.

Declaration of interests

The Scottish Government funded the position of National Education Coordinator who undertook this work.

References


Do you have a poster at DUK?

If you have research to present make sure you reach the widest audience possible by getting your work published in Practical Diabetes

- The most widely read diabetes journal in the UK
- Mailed and emailed to a multidisciplinary team
- Well respected among the diabetes community

Share your knowledge and get your research published. All you have to do is contact Helen Tupsy (htupsy@wiley.com) with an outline proposal.