Implementing a post-graduate degree course for diabetes educators in Argentina

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One reason for poor diabetes outcomes – the development of disabling, potentially life-threatening complications – is the lack of effective participation by people with diabetes in the management of their own condition. This participation is the key to successfully achieving therapeutic goals. To be able to follow a difficult and complex life-long regimen requires high levels of motivation and knowledge. Yet although extensive evidence supports this concept, only a minority of people receive appropriate diabetes education. Thus, many people with diabetes are handicapped in their self-care by limited knowledge and skills. The authors describe an initiative in La Plata, Argentina, which aims to promote and diffuse high-quality diabetes education by training healthcare providers to become expert educators.

Diabetes education programmes require large blocks of time, specific training, skills in teaching and communication, a supportive attitude, and readiness on the part of learners and educators to listen and negotiate.[1] Training, in other words, both in what to teach and how to teach it. Moreover, even if public funding suddenly were made available for the implementation of diabetes education, in many countries there would not be a sufficient number of qualified diabetes educators to cope with the current demand. It is therefore imperative that we begin to develop highly skilled diabetes educators worldwide.

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The master's programme, National University of La Plata

Caring for people with diabetes goes far beyond the traditional tasks of making a diagnosis and providing medications. This was the primary premise underpinning the development of the master's programme in La Plata. To be successful, a post-graduate programme for diabetes educators must cover approaches to facilitate learning of ways in which to acquire knowledge and skills for day-to-day self-management, as well as motivational techniques to implement and apply these in an ongoing daily procedure. This requires that the master's students learn to understand

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the impact of differences in personality, health beliefs, the degrees to which people accept and embrace their condition, and the influence of the family and social environment.

To accomplish this effectively, healthcare providers and diabetes educators must acquire skills that are not traditionally included in their curricula. Indeed, a paradigm shift is needed, away from the traditional, authoritarian, paternalistic attitude of doctors and other healthcare providers towards one of acceptance, empathy, and encouragement, sharing responsibilities for treatment and day-to-day diabetes management.

The curriculum of the National University of La Plata post-graduate programme is structured around 23 half-day modules – a total of 180 hours – and is delivered in one full day every two weeks, during which two modules are presented. It has been found that this format best suits students at the university, who all work full-time and in some cases have to travel long distances to attend classes. Between these onsite activities, participants are assigned homework that is then verified during the subsequent presentation. Each module is designed to attain a specific educational objective and consists mainly of interactive activities and formal short lectures.

The lectures are delivered by experts in the fields of diabetes, psychology, pedagogy, communication science, and disease management. This multidisciplinary approach provides students with a range of perspectives on the practical problems that people with diabetes are likely to face, and with the tools they will need to solve them. Each lecture summarizes the essential elements of a given topic or problem, and is followed by practical group exercises. The attendees also receive written material to review the theoretical basis of the target subject after each session.

The teaching staff shares the responsibility for organizing sessions, workshops and entire modules. Given the highly interactive nature of the activities, a maximum of 30 students can be enrolled in the programme. To promote the students' effective participation, several interactive techniques are used, including brainstorming and sharing ideas, role-playing, and problem-solving.

Evaluation

Evaluation is ongoing throughout the

course – performed before, during, and at the end of the programme. Multiple-choice questionnaires are used to evaluate the participants' knowledge. Each lecturer prepares six multiple-choice questions on his or her topic. These are similar in terms of their characteristics and level of complexity, and are reviewed by an expert committee to ensure homogeneity of difficulty and inclusion of appropriate distractors (incorrect options).

Skills are evaluated based on performance in a given test or practice. Attitudes are evaluated through practical tests and observational rating scales.

Post programme follow-up and evaluation

Having completed their formal coursework, students must establish and evaluate a diabetes education programme based on a thesis proposal, which is submitted at the end of their first year. An advisor helps the students to develop their proposal. The programme must be implemented and evaluated during the second year as part of the final degree requirement.

Discussion

As early as 1875, Bouchardat was promoting diabetes education for people with the condition, alongside daily urine tests and weight reduction as cornerstones of therapy in type 2 diabetes.[2] In 1925, Joslin spoke of the need for 'an education programme that explains to the community the importance of diet and physical activity to prevent the development of obesity and of diabetes. It should also demonstrate the importance of these interventions for the control and treatment of diabetes. However, this type of programme should start with the doctors.'[3] Education is now widely accepted as integral part of diabetes therapy,[4] but its implementation is not the norm among people with diabetes.

This may be in part because of its low priority in healthcare systems. Health financing organizations tend to support recovery and rehabilitation rather than prevention.[5] Additionally, effective education requires training in its delivery, and programmes to educate educators are few in number and largely absent in most developing countries. Although several organizations – the International Diabetes Federation, the Declaration of the Americas, the *Asociación Latinoamericana de Diabetes*, the European Association for the Study of Diabetes – have published guidelines for programmes to educate diabetes educators, these have not been widely tested in developing countries. At the National University in La Plata, our first objective was to ascertain whether we could effectively incorporate these educational guidelines into a master's degree programme in diabetes education.

Our experience demonstrates that these guidelines can indeed be successfully incorporated into such a programme. Furthermore, there is clearly a demand for this kind of course. We were able to enrol 22 busy healthcare providers, 20 of whom have successfully completed their coursework. That we were able to provide scholarships – from pharmaceutical companies – to all of the students is a measure of the support for the development of diabetes educators within the healthcare community.

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Acknowledgments

This article was adapted from: Development and Implementation of an Advanced Training Course for Diabetes Educators in Argentina, *Diabetes Spectrum* 2007; 20: 24-30.

See the original article for a detailed description of course content, aims and materials.

References

1 Maldonato A, Bloise D, Ceci M, et al. Diabetes mellitus: lessons from patient education. *Patient Educ Couns* 1995; 26: 57-66.

2 Bouchardat A. *Of Glycosuria and Diabetes Mellitus*. Libraire Germer Bailliere. Paris, 1875.

3 Joslin EP. *Treatment of Diabetes Mellitus*. 3rd ed. Lea and Febriger. Philadelphia, 1925.

4 Assal JP, Mühlhauser I, Pernet A, et al. Patient education as the basis for diabetes care in clinical practice and research. *Diabetologia* 1985; 28: 602-13.

5 Karter A, Stevens M, Herman WH, et al; Translating Research into Action for Diabetes Study Group. Out-of-pocket costs and diabetes preventive services: the Translating Research Into Action for Diabetes (TRIAD) study. *Diabetes Care* 2003; 26: 2294-9.