

InSight: Structured education for people with type 1 diabetes

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Education programmes addressing carbohydrate counting and insulin adjustment in type 1 diabetes have been shown to yield benefits both in quality of life and glycaemic control (DAFNE [Dose Adjustment For Normal Eating and Exercise] Study Group, 2002). However, although the importance of such education is widely accepted – and recommended by the Department of Health and Diabetes UK (2005) – there is little evidence for its effectiveness in clinical practice.

InSight

In response to this lack of clinical evidence, the authors designed “InSight”, a structured education programme that aimed to facilitate self-management for people with type 1 diabetes. InSight is based on theories of adult education and experiential learning, and runs over 4 weeks with weekly sessions, providing 15 hours total contact time. It is designed to facilitate skills for carbohydrate counting and insulin adjustment, and supports self-management of hypoglycaemia, hyperglycaemia, illness and exercise. InSight meets all the criteria for structured education and is subject to audit and evaluation.

InSight is a multicentre intervention. Here, the authors discuss the Oxfordshire current audit, which investigated the effectiveness of InSight over 2 years

follow-up. Over these 2 years, 88 people have completed follow-up and their results are discussed here.

Assessing InSight

The agreed criteria for audit were used, as recommended by the Diabetes Education Network, and biomedical and psychosocial data were collected. Biomedical data included HbA_{1c}, body weight, BMI and lipid levels, and diabetes-related distress was assessed by the use of the PAID (Problem Areas In Diabetes) questionnaire (Polonsky et al, 1995). PAID comprises 20 questions addressing potential problem areas related to diabetes. Each question scores between 1 and 4 and total scores are expressed as a percentage, with higher scores denoting more of a problem. There is an agreed cut-off point of 40%, with scores above this indicating a significant problem.

Results

Baseline characteristics of the 88 participants are as follows (all values expressed as means): age 44.6 years; diabetes duration 23.6 years; HbA_{1c} 8.5% (69 mmol/mol); body weight 70.7 kg; BMI 25.5 kg/m²; total cholesterol 4.8 mmol/L; HDL-cholesterol 1.7 mmol/L; LDL-cholesterol 2.59 mmol/L; triglycerides 1.15 mmol/L.

At 2 years, data were collected for 82% of the original cohort, which showed a significant reduction in HbA_{1c} of –0.2% ($P=0.004$), and a reduction in lipid levels, including total cholesterol (–0.3 mmol/L; $P=0.003$), LDL-cholesterol (–0.28 mmol/L; $P=0.003$) and triglycerides (–0.19 mmol/L; $P=0.04$). There were no significant changes in body weight, BMI or HDL-cholesterol.

PAID questionnaires were completed at baseline and after 1 year of the study. The results showed a significant decrease in diabetes-related distress. The mean scores at baseline were 32% and these improved to 19% ($P<0.001$) 1 year after completing the InSight programme.

Conclusion

This audit shows that InSight has produced significant improvements in biomedical outcomes, in particular glycaemic control, and in diabetes-related distress, and that these positive outcomes are maintained at 2 years follow-up. ■

DAFNE Study Group (2002) Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: dose adjustment for normal eating (DAFNE) randomised controlled trial. *BMJ* 325: 746

Department of Health, Diabetes UK (2005) *Structured Education in Diabetes*. DH, London

Polonsky WH, Anderson BJ, Lohrer PA et al (1995) Assessment of diabetes-related distress. *Diabetes Care* 18: 754–60

The IMPROVE™ Control Campaign

The Global Task Force on Glycaemic Control is a group of physicians and specialists in the field of diabetes from around the world that is working in collaboration with Novo Nordisk with the ultimate aim of identifying and developing practical solutions to the global problem of poor glycaemic control in people with diabetes. Since early 2008, the *Journal of Diabetes Nursing* has featured articles and submissions under the banner of IMPROVE™ Control – a global public awareness campaign focused on the need for improved control, which forms part of the Task Force’s work. Throughout 2009, the journal will continue to bring you articles on the barriers to good glycaemic control, and submissions from *you*, our readers, outlining the strategies you have used to help people with diabetes improve their control.

For example, perhaps you have implemented a new educational session in your area that has helped break down barriers to control, or maybe you have set up a new referral pathway that has helped improve HbA_{1c} levels. The *Journal of Diabetes Nursing* would like to help you share your practical solutions for improving control, no matter how big or small, with other nurses working in diabetes. We encourage you to take part in this global initiative by calling 020 7627 1510, or emailing james@sbcommunicationsgroup.com.

