

Education and other interventions for diabetes management in children and young people: Overview of eight randomised controlled trials

This reports gives a brief overview of eight randomised controlled trials in the UK that have been designed to examine specific diabetes education interventions: DEPICTED; FACTS; CHOICE; CASCADE; DECIDE; KICK-OFF; SCIPI; and EPIC. In the next issue of the journal, Sheridan Waldron will examine these trials in greater depth.

DEPICTED

The DEPICTED study sought to develop and evaluate a healthcare communication training programme. Healthcare professionals working in 26 paediatric diabetes services underwent training, and the effect was measured in 693 children aged 4–15 years and their families after 1 year. Trained staff showed improved consultation skills, but these waned from 4–12 months; there was no effect on HbA_{1c} levels in the children, although the parents felt better placed to support their offspring. Further modification of training is needed.

Gregory JW, Robling M, Bennert K et al (2011) Development and evaluation by a cluster randomised trial of a psychosocial intervention in children and teenagers experiencing diabetes. *Health Technol Assess* 15: ISSN 1366–5278

FACTS

FACTS examined a family-centred, structured education programme for children and young people with type 1 diabetes, delivered four times either in year 1 or in year 2. Results showed no difference in HbA_{1c} or parental responsibility; however, during 12 months' follow-up, families who attended at least two sessions reported increased parental involvement and a fall in HbA_{1c} by 0.29 percentage points.

Murphy HR, Wadham C, Rayman G, Skinner TC (2007) Approaches to integrating paediatric diabetes care and structured education. *Diabet Med* 24: 1261–8

CHOICE

The CHOICE programme for children and young people with diabetes and their families delivers group education on practical aspects

of diabetes management, such as blood glucose monitoring, carbohydrate counting, insulin adjustment and sick-day rules. It is delivered by a diabetes specialist nurse and diabetes specialist dietitian within local hospitals.

Chaney D, Coates V, Shevlin M et al (2011) Evaluation of the carbohydrate, insulin collaborative education programme for young people with type 1 diabetes. Presented at: *Diabetes UK Annual Professional Conference*, 30 March–1 April, London

CASCADE

The CASCADE trial aims to evaluate the cost-effectiveness and delivery of a structured psycho-educational programme. In total, 572 children and young people with diabetes across 26 clinics will be randomly assigned to usual care (control) or intervention, where the programme will be delivered to the families in four group sessions over 4 months; primary outcomes will be changes in HbA_{1c} from baseline, 1 year and 2 years.

Christie D, Strange V, Allen E et al (2009) Maximised engagement, motivation and long-term change in a structured, intensive education programme in diabetes for children, young people and their families. *BMC Paediatrics* 9: 57

DECIDE

DECIDE is a randomised controlled trial that aims to recruit 240 young people aged 0–17 years with newly diagnosed type 1 diabetes and to randomly assign them to either hospital or home management to assess the effect on glycaemic control. Data will be collected for 2 years, and the primary outcome is HbA_{1c}.

Townson JK, Gregory JW, Cohen D et al (2011) Delivering early care in diabetes evaluation. *BMC Paediatrics* 11: 7

KICK-OFF

The KICK-OFF study is a randomised controlled trial based on carbohydrate counting and insulin dose adjustment using a multiple daily injection regimen. It involves 480 young people with diabetes aged 11–16 years, and results are due in 2013. Independent educational review and feedback from participants and parents are very positive.

Knowles J, Price K, Fox M et al (2012) "KICK-OFF": a structured education programme for children with diabetes based on the adult DAFNE course. Available at: <http://www.kick-off.org.uk/team.php> (accessed 1/05.12)

SCIPI

The SCIPI trial objective is to compare the effectiveness of subcutaneous insulin delivery by pump or injections in young people aged 0–15 years with newly diagnosed diabetes. Outcome measures will include glycaemic control, adverse events and quality of life.

Blair JC (2012) A randomised, controlled trial of continuous subcutaneous insulin infusion compared to multiple daily injection regimens in children and young people at diagnosis of type 1 diabetes mellitus. Available at: <http://www.controlled-trials.com/ISRCTN29255275> (accessed 29.04.12)

EPIC

The EPIC project has developed a range of child-centred diabetes information resources to support the development of self-management in this group. A randomised controlled trial has been developed to evaluate the information resources in routine practice. The aim of the intervention is to improve young people's self-efficacy in managing their type 1 diabetes.

Noyes JP, Williams A, Allen D et al (2010) Evidence into practice: evaluating a child-centred intervention for diabetes medicine management. *BMC Paediatrics* 10: 70