

Title of Intervention: Summer camps for diabetic children

Intervention Strategies: Group Education, Individual Education, Supportive Relationships

Purpose of the Intervention: To improve knowledge, self-management and metabolic control among children with diabetes

Population: Children with diabetes, average age of 10 years

Setting: Summer camps in Italy; community-based

Partners: Diabetes association, medical personnel

Intervention Description:

- Group Education: A summer camp was held for diabetic children with at least six hours devoted to sport and recreational activities. Doctors oftentimes served as entertainers and playmates. Every two days, meetings were led by the psychologist and covered various topics of importance to the children. Other training courses used traditional methods, such as: slides, films, videotape, programs, illustrated booklets and handbooks or computer programs.
- Individual education: Three hours per day were spent on theoretical and practical training of self-management practices.
- Supportive Relationships: Relationships were highlighted between family members and medical personnel. Parents had the ability to spend time with their children during planned group activities over three different days at camp. Parents were also invited to attend follow-up meetings. This allowed them to provide support to their children while the children engaged in self-management programs and psychological maturation.

Theory: Social Cognitive Theory

Resources Required:

- Staff/Volunteers: Pediatric endocrinologists, psychologist, nurses, cook, directors of the association
- Training: Meal planning and cooking methods appropriate for children with diabetes
- Technology: Computers, computer programs
- Space: Summer camp facilities with room for educational activities and space for sports and recreational activities
- Budget: Not mentioned
- Intervention: Slides, films, videotapes, booklets, handouts, food for camp meals
- Evaluation: Clinical tests for metabolic measures, questionnaires

Evaluation:

- Design: Pre- and post-test
- Methods and Measures:
 - A multiple-choice questionnaire measured diabetes management knowledge.
 - Metabolic indicators were used to measure glycemic control.

Outcomes:

- Short Term Impact: There was a significant improvement in children's knowledge level during camp.
- Long Term Impact: There was a significant improvement in overall metabolic control, both during and after camp. The average blood glucose values and percentage of optimum blood glucose values significantly improved during the 2nd week of the summer camp. During the camp, nearly all of the children could reasonably reduce their average daily insulin dose by 20%. The average hemoglobin A₁C level significantly decreased compared to the average value before the camp in children who participated in all the monthly meetings after the camp.

Maintenance: Monthly meetings were held after the camp ended. Meetings included children and parents.

Lessons Learned: Summer camps for diabetic children aimed at achieving self-management of their disease are recognized as an ideal educational activity due to their friendly atmosphere, where all children can share their feelings, problems and ideas. Summer camps have an important bearing on achieving acceptance of the disease and have resulted in being an efficient and effective approach on both a metabolic and a psychological level. Summer camps give doctors the opportunity to lower their mental defenses and understand children's behavior from a completely different viewpoint.

Citation(s):

Misuraca A, Di Gennaro M, Lioniello M, Duval M, Aloï G. Summer camps for diabetic children: an experience in Campania, Italy. *Diabetes Res Clin Pract.* Apr 1996;32(1-2):91-96.