

Title of Intervention: Multi-family group intervention and parent simulation of diabetes

Intervention Strategies: Supportive Relationships, Group Education

Purpose of the Intervention: To improve metabolic control and family functioning among adolescents who have diabetes

Population: Adolescents aged 12 to 19 years with insulin dependent diabetes mellitus (IDDM) and their families

Setting: Diabetes/Metabolic Unit, university-affiliated hospital; health care facility-based

Partners: None mentioned

Intervention Description:

- Supportive Relationships: Two group leaders lead discussions on families' feelings about diabetes and how it affected family members. Discussions also addressed family encounters of diabetes-related issues that arose during the previous week. Role playing was used to build problem-solving skills as well as create adaptive solutions
- Group Education: Groups made up of multiple families met together for six weekly sessions of 90 minutes each to discuss diabetes management and specifically what families could do to improve treatment adherence. Diabetes simulation for parents consisted of daily measured injections, urine measurements, a special meal plan, exercise prescription, recording of "hypoglycemia" episodes and submitting blood tests.

Theory: Group Theory Principles

Resources Required:

- Staff/Volunteers: Social worker and nurse practitioner
- Training: Training of group facilitators
- Technology: Not mentioned
- Space: Classroom/meeting area
- Budget: Not mentioned
- Intervention: Materials to conduct the parental simulation (insulin syringes, simulated urine)
- Evaluation: Methods to measure metabolic status

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
 - A test was used to measure changes in attitudes and perception of family environment as well as estimates of self-care.
 - Metabolic control was measured using blood samples.

Outcomes:

- Short Term Impact: For families that participated in the intervention, both adolescents and parents experienced significantly positive changes in attitude and perception towards diabetes.
- Long Term Impact: Parents reported perceptions that adolescents increased diabetes self-care. In addition, adolescents demonstrated significant improvements in metabolic control and status.

Maintenance: Families continued to participate in follow-up groups, which provided an opportunity to track any later changes in behavioral management of diabetes.

Lessons Learned: Family group sessions were more effective and involved more active family participation, when groups involved 3-4 families. In contrast with the teens and mothers, fathers tended to report more negative perceptions over time. This may reflect fathers' greater awareness of difficulties in diabetes management and a more realistic attitude toward their own involvement in care.

Citation(s):

Satin, W., A. M. La Greca, et al. (1989). "Diabetes in adolescence: effects of multifamily group intervention and parent simulation of diabetes." *J Pediatr Psychol* 14(2): 259-75.