

Title of Intervention: Roaring Adventures of Puff

Website: <http://www.educationforasthma.com/>

Intervention Strategies: Group Education, Supportive Relationships

Purpose of the Intervention: To increase knowledge of asthma and treatments and improve self-management

Population: Children ages 7-12 with asthma and their parents

Setting: Classrooms; school-based

Partners: None mentioned

Intervention Description:

- **Group Education:** The children's portion of Roaring Adventure of Puff (RAP) consisted of six, 60-minute sessions with interactive teaching strategies such as puppetry, games, role play, model building and asthma diary interpretations. The objectives of activities and teaching approaches were to facilitate self-regulation of asthma, which included optimal self-assessment skills for symptoms, peak flow, triggers and medication effectiveness. Children established their own measurable goals with the use of the Asthma Wish List. Strategies to help achieve the goals were introduced one at a time during a six-week period.
- **Supportive Relationships:** Peers provided each other with ongoing support throughout the program and after completion of the program. Roaring Adventures of Puff attempted to promote communication among family members to encourage optimal support for the child with asthma. Family partnership was promoted through a parent/teacher awareness event, ongoing parent/instructor communication, child/parent communication facilitated through the Roaring Adventures of Puff Fun Book and parent attendance at RAP-up session.

Theory: Social Cognitive Theory

Resources Required:

- **Staff/Volunteers:** Educators/facilitators
- **Training:** Not mentioned
- **Technology:** Not mentioned
- **Space:** Classrooms
- **Budget:** Not mentioned
- **Intervention:** Educational materials, puppets, action plan diaries, games
- **Evaluation:** Questionnaires

Evaluation:

- **Design:** Randomized controlled trial
- **Methods and Measures:**
 - Pediatric Asthma Quality of Life Questionnaire
 - Childhood Asthma Pictorial Scale
 - Childhood Asthma Self-Efficacy Scale
 - Parent's RAP Questionnaire assessed demographic information such as age, gender, ethnic background and the parents' perception of their child's symptom severity, medication use, health care utilization, school absenteeism and attitudes toward asthma.

Outcomes:

- **Short Term Impact:** Parents of the intervention group indicated a statistically significant higher level of improvement in their understanding and ability to control and cope with asthma than the control group.
- **Long Term Impact:** Statistically significant improvements within the intervention group included overall parent-rated severity, unscheduled physician visits in the last year, moderate-to-severe shortness of

breath, limitations in the kind of play and any missed school days in the last year. Only the intervention group had significant improvements with key medication and asthma management indicators after the intervention.

Maintenance: Not mentioned

Lessons Learned: Not mentioned

Citation(s):

McGhan SL, Wells HM, Befus AD. The "Roaring Adventures of Puff": a childhood asthma education program. J Pediatr Health Care. Jul-Aug 1998;12(4):191-195.

McGhan SL, et al. Evaluation of an education program for elementary school children with asthma. J Asthma. 2003; 40(5): 523-33.