

Title of Intervention: Watch, Discover, Think and Act

Intervention Strategies: Individual Education

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

Population: African American and Hispanic children ages 6-17 with moderate to severe asthma, parents

Setting: Inner city health care facilities; health care facility-based

Partners: None mentioned

Intervention Description:

- Individual Education: Participants played an interactive computer game that was tailored to the individual by using his or her asthma triggers. The program intended to help children learn how to manage asthma, develop such asthma-specific skills as taking medication, and incorporate self-regulatory processes into asthma management routines. Strategies included goal setting, self-monitoring, problem identification, solution generation, action and evaluation. In this adventure game, the player managed a character's asthma. An older child character served as a coach in the game to model making decisions about asthma. Within the game, the player learned new skills and applied a monitoring and problem identification mode to identifying symptoms, ensured appropriate preventive care for asthma and predicted environmental triggers. After playing the game, the child and the primary caregiver were each given two computer printouts with reinforcing messages, a reminder of the self-regulatory process taught and scores in the game. The child also received an asthma action plan that outlined control medications, symptoms, triggers and the next appointment.

Theory: Social Cognitive Theory

Resources Required:

- Staff/Volunteers: Facilitators
- Training: Not mentioned
- Technology: Computer, printer
- Space: Not mentioned
- Budget: Not mentioned
- Intervention: Watch, Discover, Think and Act game software
- Evaluation: Questionnaires, game tracking records, interview protocol

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
 - Telephone Questionnaires assessed asthma symptoms, severity, medicines and triggers.
 - Participant interviews assessed self-efficacy and knowledge on management.
 - Computer programs tracked data for process evaluation, including number of sessions, times, number of tutorials completed and quiz scores.

Outcomes:

- Short Term Impact: The intervention was associated with greater knowledge of asthma management and better child self-management behaviors.
- Long Term Impact: The intervention was associated with fewer hospitalizations, better symptom scores and increased functional status.

Maintenance: Not mentioned

Lessons Learned: Use of the self-management educational programs can have an impact on symptoms for those children with milder symptoms.

Citation(s):

Bartholomew, L. K., R. S. Gold, et al. (2000). "Watch, Discover, Think, and Act: evaluation of computer-assisted instruction to improve asthma self-management in inner-city children." *Patient Educ Couns* 39(2-3): 269-80.