

Improving Quality of Life and Health Outcomes in Children Who Have Asthma

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Significance/Background: Asthma affects 13% of school-aged children in the US. Frequent symptomatic days requiring urgent management, disturbed sleep, and limitations in daily activities due to asthma contribute to worsening quality of life (QOL) and poor asthma control.

Evaluation Methods: A randomized controlled trial was conducted to examine the effect of an asthma self-management intervention delivered via in-school class or day camp, in comparison to an attention control intervention. Data on QOL, health outcomes, and asthma severity were collected at baseline and again at 12 months with valid, reliable instruments. Repeated measures ANOVA were run to examine changes from baseline to 12 months. The sample was composed of 257 children, 64% boys and 36% girls, 58% Hispanic, 21% African American, and 19% white.

Outcomes: Compared to the attention-control group, the participants who attended either the asthma day camp or in-school asthma classes had significantly improved QOL (Children $p=.007$; Parents $p=.007$), asthma severity ($p=.005$), inhaler skill ($p<.001$), reduced hospitalizations ($p = .04$) and office visits ($p < .0001$).

Implications: The intervention, which focused on symptom recognition, self-monitoring, problem-solving, and skill development, was an effective way to improve QOL and health outcomes in children with asthma. The improvements experienced by children who received either mode of asthma self-management intervention (class or camp) supports the translatability of the intervention for delivery in a variety of venues.