

Childhood Obesity Intervention Programs: A Literature Review

ABSTRACT

BACKGROUND: Childhood obesity has become a global epidemic. This research is an overview of different interventions conducted in community, school and home settings so as to guide efforts for an effective management of obesity in children and provide a profile of successful childhood obesity prevention intervention programs, thus minimizing the risk of adult obesity and related cardiovascular risk.

METHODS: PubMed and Google Scholar databases were searched for community, school and home settings obesity interventions with anthropometric measures in children and adolescents between the ages of 6 and 12 years from 2004 to 2009. Studies were reviewed by intervention type, duration, outcomes measures and significance of intervention aspects, resulting in a yield of 22 intervention studies.

RESULTS: The interventions have been arranged in ascending order by age group; based on a review of these interventions, it is evident that there is a need for more primary prevention programs. In total, 22 interventions from around the world were found to tackle the critically important issue of childhood obesity. The majority of the interventions (n=13) were developed and implemented in elementary schools. In addition, 5 interventions were one academic year in duration. Four were short lasted only eight weeks, three were 32 weeks in length, one was 12 weeks long, four were 24 weeks, two lasted 36 weeks, and three lasted two full years. Among the 22 published studies, ten interventions focused on individual level behavior change and twelve included some nutrition policy changes. With respect to individual behavior, components included cooking classes for families, training on food selection, and

health education session on disordered eating. In terms of measurement of behaviors, the majority of the studies (n=22) measured changes in factors (such as times spent being physically active, fruit/vegetable intake, and reductions in TV viewing. Many of these studies were able to show positive outcome towards progress of healthy behaviors. From the 22 published studies, six interventions relied on secondary prevention while fifteen interventions used a primary prevention method. Only one intervention used both types. In total of 22 published studies, only nine were able to show significant outcomes, while 13 were not able to show any impact. Seven of the non-theoretical based interventions showed significant result, while only two of the project based on specific behavioral theories.

CONCLUSIONS: Schools are the best settings for childhood obesity interventions because children form lifelong eating and physical activity habits at a young age. School-based interventions focused on childhood obesity prevention must target enhancement of physical activity and healthy nutrition in order to decrease BMI. Future interventions should seek to incorporate individual behavior change strategies with policy and environmental changes in order to make a substantial and sustainable impact on children's health and well-being.

Keywords: Obesity prevention and control; Program; intervention; childhood obesity.