

A systematic review of internet-based family intervention for childhood obesity

ABSTRACT

Background: Family based interventions for childhood obesity has been demonstrated to be effective over the past several decades but parents are difficult to engage. Internet-based family intervention could be an alternative to face to face family intervention in meeting the barriers identified from parents. **Objectives:** This review provides an overview of internet-based family intervention for obese children, focusing on effectiveness and attrition rates. **Methods:** Randomized controlled trial studies published between January 2004 and March 2014 were selected from six electronic databases. Intervention using internet or web-based which involved parents of 2 to 17 years old and lifestyles and behavior modification were included. Intervention characteristics were reviewed and salient features were extracted. **Results:** Five related randomized controlled trials were included. Four of five studies found significant adiposity and behavioral changes. Attrition rates ranged from 2% to 47%. Intervention characteristics that could contributed to intervention effectiveness were theory based, used of more behavioral techniques and interactive features like online self-monitoring and e-mail contact with counselors. One of the factors that could have influence on attrition rates was monetary incentives. Parents' empowerment and parenting aspects were lacking in the internet-based family intervention for parents. **Conclusions:** internet-based intervention has a short term impact on adiposity and behavioral changes and has the potential to minimize parents' attrition in family based intervention. Improving the intervention elements in internet-based family intervention might improve effectiveness and attrition rates.

Keyword: Childhood obesity; Family-based intervention; Internet; Effectiveness; Attrition rates; Systematic review