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**Computer games for management of obese children: A novel treatment to enhance self-regulatory abilities for weight-control**

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#### Abstract

**Introduction:** For obese children, behavioral treatment results in only small changes in relative weight and frequent relapse. The health providers need psychological intervention to weight maintaining diet and prevent of relapse in children. The current study investigated the effects of a computer game on weight loss maintenance in obese children. Computer game acts as a motivational factor for increasing exercise and anxiety-depression regulator.

**Method:** Forty-four children (aged 8–14 years) who were in the final months of a 10-months nutrition and diet therapy program were randomized to either the 6 week CG-training condition or usual treatment only as control group. The CG-training consisted of a 25-session training of inhibition and working memory.

**Result:** Child performances on cognitive tasks of inhibition and working memory and child care worker ratings on as well as weight loss maintenance after leaving the clinic. Children in the CG-training condition showed significantly more improvement than the children in the care as usual only group on the working memory task as well as on the child care worker reports of working memory and meta-cognition. They were also more capable to maintain their weight loss until 8 weeks post-training.

**Conclusion:** This study shows promising evidence for the efficacy of a CG-training as weight stabilization intervention in obese children.

**Key words:** obesity, children, intervention, computer game, motivation