Multicomponent Lifestyle Interventions for Treating Overweight and Obesity in Children and Adolescents: A Systematic Review and Meta-Analyses

The prevalence of childhood overweight and obesity has risen over the past decades. In addition to negative health side effects, overweight and obesity can also have an impact on psychological health. In an attempt to halt the rise in overweight and obesity, multicomponent lifestyle interventions are often favoured to simultaneously alter dietary and physical activity. The aim of this systematic review was “to assess the effect of multicomponent lifestyle interventions including two or more lifestyle components on change in BMI and BMI z-scores in children and adolescents compared to control conditions of standard, minimal or no treatment.”

A total of 39 randomised controlled trials in 52 publications were included in this systematic review. Overall, the study provides “evidence for moderate treatment effects of multicomponent interventions on the weight-related outcomes BMI and BMI z-scores for children and adolescents who are overweight or obese.” Additionally, subgroup analyses revealed that interventions set in specialist healthcare facilities with a group treatment factor were the most effective. Overall, despite only revealing moderate effect, the study shows that “multicomponent lifestyle interventions involving strategies for change in diet and/or physical activity and family involvement may improve BMI and BMI z-score in children and adolescents with varying degree of overweight and obesity.”