Interventions for preventing obesity in children

Obesity is a worldwide epidemic that significantly impacts a large portion of the worldwide community. It also has a significant impact on the development of other chronic diseases such as heart disease and type 2 diabetes. Childhood obesity can lead to a host of lifelong issues, and, once established, it is difficult to reverse. Furthermore, treating obesity and obesity-related issues is very expensive. It is clear that preventative measures taken to address obesity, such as nutritional and behavioural interventions, are extremely important. Lifestyle modifications are best implemented from birth to starting primary school, when behaviours are being established in the child. Adolescence is also very important as older children tend to have more freedom in their food choices than their younger counterparts. The goal of this article was to “update the evidence base for children given the exponential growth of studies in this field … [and] ensure that the review remains current and policy and practice - relevant, with particular regard for health equity”. It included data categorised by age group from randomised controlled trials (RCTs) up to and including 2015.

153 RCTs from intervention programmes were included in the review. From this review, there is some evidence that interventions targeting the diet and physical activity (PA) of children aged 0 to 5 could reduce measures of adiposity. This reduction was small, with no apparent effect from interventions in preschools, but instead an effect with at-home or wider-community interventions. Neither diet alone or PA alone interventions reduced Body Mass Index (BMI) or z-BMI. In children aged 6 to 12 years, interventions focused on PA reduced adiposity measures in children enrolled compared to control groups. Interventions on dietary patterns alone did not reduce either BMI or zBMI in this group. In adolescents aged 13 to 18 years, PA interventions reduced BMI in those participating in the intervention compared to the control. Although dietary interventions and PA/dietary interventions did not have a significant effect on BMI or zBMI in this age group, researchers had limited confidence in this evidence.

Future research reviews should include more categorical data, as within the PA and dietary categories the intensity and duration of intervention varied greatly (ie engaging in PA versus reducing screen time are both considered PA interventions). An important finding of this review is that no interventions appeared to have an adverse effect on the children, such as the unintentional implementation of disordered eating. However, the follow-ups for the studies ranged from weeks to years, so smaller follow-up periods may not catch possible adverse effects. Policy makers serious about tackling childhood obesity should focus on wider community-level interventions, with “upstream environmental and policy interventions”.