

## Exercise interventions improves self-esteem in children and young people in the short-term but better research needed



*Exercise interventions have positive short-term effects on self-esteem*

### What is the aim of this review?

This Campbell systematic review examines the impact of exercise interventions on the self-esteem of children and young people. The review summarise findings from 23 studies conducted in the USA, Canada, Australia and Nigeria. Participants were children and adolescents between the ages of 3-20 A total of 1,821 participants were included in the studies.

Exercising has positive physical health outcomes in children and adolescents. Exercise also has positive effects on self-esteem in children and young people, at least in the short-term. But the strength of the evidence is weak, and there is a lack of studies about long-term effects, so further research is needed.

### What did the review study?

Psychological and behavioural problems are prevalent among children and adolescents. An improvement in self-esteem is one way of preventing the development of these problems. This review examines the impact of exercise interventions on the self-esteem of children and young people.

### What studies are included?

Included studies assess various exercise interventions including gross motor, energetic activity, for example, running, swimming, ball games and outdoor play of moderate to high intensity, and report on all measurements of children's self-esteem using both randomized controlled trials and quasi-randomized trials. Studies that included children and young people with psychotic or borderline conditions, physical handicap, autism, eating disorders and chronic somatic/physical diseases were not included.

A total of 23 studies consisting of 1,821 children were included in the final evaluation. Eighteen of the included studies were carried out in the USA, two in Canada, one in Australia and one in Nigeria. The duration of the interventions varied between four to 14 weeks

### What are the main results in this review?

Exercise interventions have positive effects on self-esteem, at least in the short-term.

The finding is the same for interventions which comprise exercise alone, and those including exercise as part of a more comprehensive



#### How up-to-date is this review?

The review authors searched for studies published until May 2003. This Campbell Systematic Review was published in October 2005.

#### What is the Campbell Collaboration?

The Campbell Collaboration is an international, voluntary, non-profit research network that publishes systematic reviews. We summarise and evaluate the quality of evidence about programmes in the social and behavioural sciences. Our aim is to help people make better choices and better policy decisions.

#### About this summary

This summary was prepared by Ada Chukwudozie and Howard White (Campbell Collaboration) based on the Campbell Systematic Review 2005:4 Exercise to Improve Self-Esteem in Children and Young People by Eilin Ekeland, Frode Heian, Kåre Birger Hagen, Jo Abbott and Lena Nordheim (DOI 10.4073/csr.2005:4). The summary was redesigned and proofread by Tanya Kristiansen (Campbell Collaboration). Financial support from the American Institutes for Research for the production of this summary is gratefully acknowledged.

intervention. There was no significant difference in effects according to the type of exercise intervention or intervention duration.

No follow-up results were given so long-run effects are not known.

#### What do the findings in this review mean?

The main results presented in this review provide evidence of positive short-term effects of exercise on self-esteem in children and young people thus, supporting exercise interventions as a way of improving self-esteem.

However, there are several methodological weaknesses including risk of moderate to high bias in the studies and insufficient data, which reduces the strength of the current evidence. As such, further research that provides stronger evidence of the effectiveness of exercise programmes on self-esteem is needed. Furthermore, there is a need for follow-up data to demonstrate the extent to which the effects of programmes are maintained over time.

