

CADTH Reference List

Behaviour-Based Primary Care Interventions for the Prevention of Overweight and Obesity in Children

April 2021

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Cite As: *Behaviour-Based Primary Care Interventions for the Prevention of Overweight and Obesity in Children*. Ottawa: CADTH; 2021 Apr. (CADTH reference list).

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Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

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Key Message

- Three overviews of systematic reviews and 24 systematic reviews (12 with meta-analyses) were identified regarding the clinical effectiveness of behaviour-based interventions or alternative therapies for the prevention of overweight and obesity in children.

Research Question

What is the clinical effectiveness of behaviour-based interventions or alternative therapies for the prevention of overweight and obesity in children?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were pediatrics, obesity, and behavioural interventions. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or network meta-analyses. Where possible, retrieval was limited to the human population. The search was also limited to English-language documents published between January 1, 2013 and March 24, 2021. Internet links were provided, where available.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed.

Results

Three overviews of systematic reviews¹⁻³ and 24 systematic reviews⁴⁻²⁷ (12 with meta-analyses^{4,6,7,10,13-15,18,23-26}) were identified regarding the clinical effectiveness of behaviour-based interventions or alternative therapies for the prevention of overweight and obesity in children. No relevant health technology assessments were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in Appendix 1.

Table 1: Selection Criteria

Criteria	Description
Population	Children aged 0 to 18 years, with or without their families Normal-weight, overweight, or mixed-weight populations Exclude: studies that only include children being treated for obesity, those with a serious illness or severe comorbidities, pregnant adolescents
Intervention	Behaviour-based interventions (i.e., diet, physical activity) or alternative or complementary therapies (e.g., acupuncture, naturopathic therapies) for the prevention of weight gain alone or in combination with other behaviour-based interventions Setting: community, community clinics, primary care, schools, home, childcare, nursery, preschool Exclude: pharmacological, surgical, or psychosocial interventions for the prevention of weight gain; interventions provided in an inpatient hospital setting (e.g., within a surgical or metabolic unit)
Comparator	No or minimal treatment (e.g., wait list control, a single information session on healthy living, a newsletter) Usual care Alternative behaviour-based intervention for the prevention of weight gain, alone or in combination with another eligible comparator
Outcomes	Clinical benefits (e.g., change in BMI, change in BMI z-score, percent body fat, skinfold thickness, morbidity, quality of life, mental health) and harms (e.g., disordered eating, psychological distress, micronutrient deficiency, abnormal growth trajectory)
Study designs	HTAs, SRs

BMI = body mass index; HTA = health technology assessment; SR = systematic review.

References

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

Overview of Systematic Reviews

1. Hayba N, Rissel C, Allman Farinelli M. Effectiveness of lifestyle interventions in preventing harmful weight gain among adolescents: A systematic review of systematic reviews. *Obes Rev.* 2021 02;22(2):e13109. [PubMed](#)
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Systematic Reviews of Randomized Controlled Trials Only – Multiple Interventions or Multi-component Interventions

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Systematic Reviews of Randomized Controlled Trials Only – Exercise and Physical Activity

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Systematic Reviews Not Limited to Randomized Controlled Trials – Multiple Interventions or Multi-component Interventions

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Systematic Reviews Not Limited to Randomized Controlled Trials – Diet and Nutrition

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Systematic Reviews Not Limited to Randomized Controlled Trials – Exercise and Physical Activity

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Systematic Reviews Not Limited to Randomized Controlled Trials – Technology-Based Interventions

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Appendix 1: References of Potential Interest

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Mixed Population – Adults and Children

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Unclear Comparator – Other Behavioural Interventions

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Mixed Intervention – Prevention and Treatment

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Mixed Intervention – Prevention of Obesity and Type 2 Diabetes

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Alternative Intervention – Not Targeting Prevention of Weight Gain – Multiple Interventions or Multi-component Interventions

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Alternative Intervention – Not Targeting Prevention of Weight Gain – Technology-Based Interventions

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Alternative Intervention – Not Targeting Prevention of Weight Gain – Maternal Interventions

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