

# INPLASY PROTOCOL

To cite: Sandoval-Aguilera et al. Effectiveness of health promotion programs with parental or family involvement for increasing moderate-to-vigorous physical activity in school-aged children: a systematic review. Inplasy protocol 2021100003. doi: 10.37766/inplasy2021.10.0003

Received: 01 October 2021

Published: 01 October 2021

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**Support:** Becas Magíster Nacional ANID.

**Review Stage at time of this submission:** The review has not yet started.

**Conflicts of interest:**  
None declared.

## Effectiveness of health promotion programs with parental or family involvement for increasing moderate-to-vigorous physical activity in school-aged children: a systematic review

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**Review question / Objective:** The purpose of this systematic review is to examine studies that have assessed the effectiveness of health promotion programs with parental or family involvement for increasing moderate-to-vigorous physical activity in school-aged children.

**Condition being studied:** Research has shown that parental or family support is positively associated with overall physical activity in children and young people. However, little is known about the differential effect of involving parents and family members when implementing interventions for promoting physical activity in children and adolescents compared with strategies that only rely on actions focused on the individuals or school environments.

**Information sources:** A search strategy for articles will be carried out in the following databases: Embase, Pubmed, SPORTDiscus, Scopus and CINAHL. Also, a search from gray literature (academic google, Open Gray) and references from the articles found in the first stage will be conducted.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 October 2021 and was last updated on 01 October 2021 (registration number INPLASY2021100003).

### INTRODUCTION

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vigorous physical activity in school-aged children.

**Condition being studied:** Research has shown that parental or family support is positively associated with overall physical activity in children and young people. However, little is known about the differential effect of involving parents and

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family members when implementing interventions for promoting physical activity in children and adolescents compared with strategies that only rely on actions focused on the individuals or school environments.

## METHODS

**Participant or population:** School-aged children (5 to 18 years old).

**Intervention:** Intervention strategies for promoting physical activity in school-aged children and adolescents that have included a parental (at least one caregiver) or family involvement component in the intervention.

**Comparator:** Physical activity interventions without a parental or family involvement component.

**Study designs to be included:** Clinical trials, randomized controlled trials, quasi-experimental studies, pilot studies.

**Eligibility criteria:** For studies to be eligible for this review, they must meet the following criteria: (i) Participants: Children and adolescents aged 5 to 18 years old. (ii) Interventions including a parental or family involvement component (for example, parental PA encouragement, parental PA accompanying, parental PA-related financial support, parental PA involvement, parental PA knowledge-sharing or parental PA role modeling). (iii) Results: estimates of changes in moderate-to-vigorous physical activity, total physical activity and steps. (iv) Type of study: clinical trial, randomized controlled trial, quasi experimental study or pilot study. (v) Settings: schools, community centers, neighborhood, community, streets, parks, clinical settings, among others.

**Information sources:** A search strategy for articles will be carried out in the following databases: Embase, Pubmed, SPORTDiscus, Scopus and CINAHL. Also, a search from gray literature (academic google, Open Gray) and references from

the articles found in the first stage will be conducted.

**Main outcome(s):** Change in moderate-to-vigorous physical activity, total physical activity or steps as measured with devices or self-report.

**Quality assessment / Risk of bias analysis:** Risk of bias will be assessed with the Cochrane risk-of-bias tool (RoB 2). The tool assesses the risk of bias in the following domains: 1) risk of bias arising from the randomization process (selection bias), 2) Risk of bias due to deviations from the intended interventions (effect of adhering to intervention or performance bias), 3) Missing outcome data (attrition bias), 4) Risk of bias in measurement of the outcome (detection or response bias), and 5) Risk of bias in selection of the reported result (reporting bias). Each domain will be classified as low, some concerns or high risk of bias for the reviewed study. Two authors will independently assess each study and disagreements will be resolved between them. If the disagreement continues, a third author will help in the final decision. The quality analysis results will be reported following the GRADE recommendations as high, moderate, low or very low risk of bias.

**Strategy of data synthesis:** The studies identified from different databases in the initial search will be exported to the Rayyan data detection and extraction tool. Duplicated articles will be removed. Subsequently, two reviewers will carry out the selection of intervention studies independently by reviewing titles and abstracts of the studies. Then, any disagreement between the reviewers regarding the eligibility of any study will be resolved between them. If disagreement continues, a third reviewer will help in the decision. Quality assessment and data extraction will be conducted independently by two reviewers. In the event of unclear or missing data in a study, the corresponding author of the manuscript will be contacted via email. The selected texts will be subjected to a descriptive analysis according to the characteristics of the

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studies and the results will be presented through a narrative synthesis. In addition, based on the number of articles evaluated with the Cochrane risk of bias tool (RoB 2), the applicability of a meta-analysis will be determined to summarize the results of the studies selected in the review, using the Stata software.

**Subgroup analysis:** Subgroup analysis will be performed only in the case of having sufficient randomized controlled trials through meta-regression analysis of the random effects of the studies to examine the impact of the intervention variables.

**Sensitivity analysis:** A sensitivity analysis will be conducted to determine if any individual studies with extreme findings had any incorrect influence on the overall result.

**Language:** Spanish, English, German and Portuguese.

**Country(ies) involved:** Chile.

**Keywords:** Physical activity; school-aged children; parent; family; sport; school.

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