Impact of school-based physical activity interventions in primary schools: measuring what matters

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Background:
A growing number of small studies suggest that school-based physical activity initiatives can help children achieve the recommended 60 minutes of physical activity per day. However, the heterogeneity of outcomes and measures used in small studies prevents pooling of results to demonstrate whether short-term health benefits are sustained. Qualitative studies suggest many benefits that are not represented by outcomes in trials to date. The aim of this study was to generate a list of outcomes that have been studied to develop a core outcome set (COS) acceptable to key stakeholders for future studies evaluating school-based physical activity initiatives.
Methods:
We searched six databases (MEDLINE, EMBASE, PsycINFO, CINAHL, CENTRAL and Cochrane Database of Systematic

Reviews) systematically for reviews of school-based physical activity interventions, and extracted relevant studies to identify the outcomes and measures used in each paper. A long list was generated from the literature and a previous workshop with stakeholders. This study is registered with COMET (#1322), and with PROSPERO (CRD42019146621).

Results:

75/121 cited studies drawn from 53/2409 reviews met our inclusion criteria. We grouped 65 outcomes into 3 domains: (i) physical activity and health (ii) social and emotional health, and (iii) educational attainment. We will conduct two Delphi survey rounds with four stakeholder groups (health professionals, researchers, educators and parents) to rate the importance of each outcome. A core outcome set will be generated from a consensus process.

Conclusions:

There is currently a large variation of outcomes and measures studied that precludes evidence synthesis of the impact of school-based physical activity interventions. Consensus methods are needed to focus research on the outcomes that matter the most to key stakeholders and to provide tools for future studies to assess long-term impact.

Key messages:

- Variations in outcomes studied precludes evidence synthesis of SBPA intervention impacts.
- A core outcome set is needed to ensure future SBPA interventions measure outcomes that matter the most.