

Effect of Capacity Building Interventions on Classroom Teacher and Early Childhood Educator Physical Activity and Fundamental Movement Skills Related Knowledge, Self-efficacy and Attitudes: A Systematic Review and Meta-Analysis

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Introduction

Physical activity during childhood can improve children's health and promote physical literacy and contribute to lifelong engagement in physical activities¹

Educational settings have been identified as an ideal setting to promote physical activity in children², however children spend the majority of their time inactive while in these settings⁴

Teachers play an important role in promoting physical activity in education settings. However, teachers face several barriers in promoting physical activity to their students, with some of the most common including inadequate training³

Capacity building interventions that increase teachers' ability to promote physical activity may be an effective strategy to increase children's physical activity

Purpose

The aim of this study was to evaluate and synthesize the effect of capacity building interventions on:

1. **Teacher's perceived capabilities** to promote physical activity to their students
2. **Knowledge related to** physical activity
3. **Attitudes** towards promoting physical activity

Methodology

Primary literature searches were conducted on **Medline, SPORTDiscus, PsychInfo, CINAHL, ERIC, and Scopus.**

Studies were eligible if they:

- Included pre-service or in-service generalist teachers in early childhood education, primary education, or secondary education
- Included capacity building interventions
- Were controlled, single group pre-post, and cross-sectional case control studies
- Examined teachers' perceived capabilities to increase young people's physical activity and fundamental movement skills (FMS), physical activity and FMS related knowledge, and their attitudes towards promoting physical activity and FMS development

Search terms were saved to Covidence and perfect duplicates were removed.

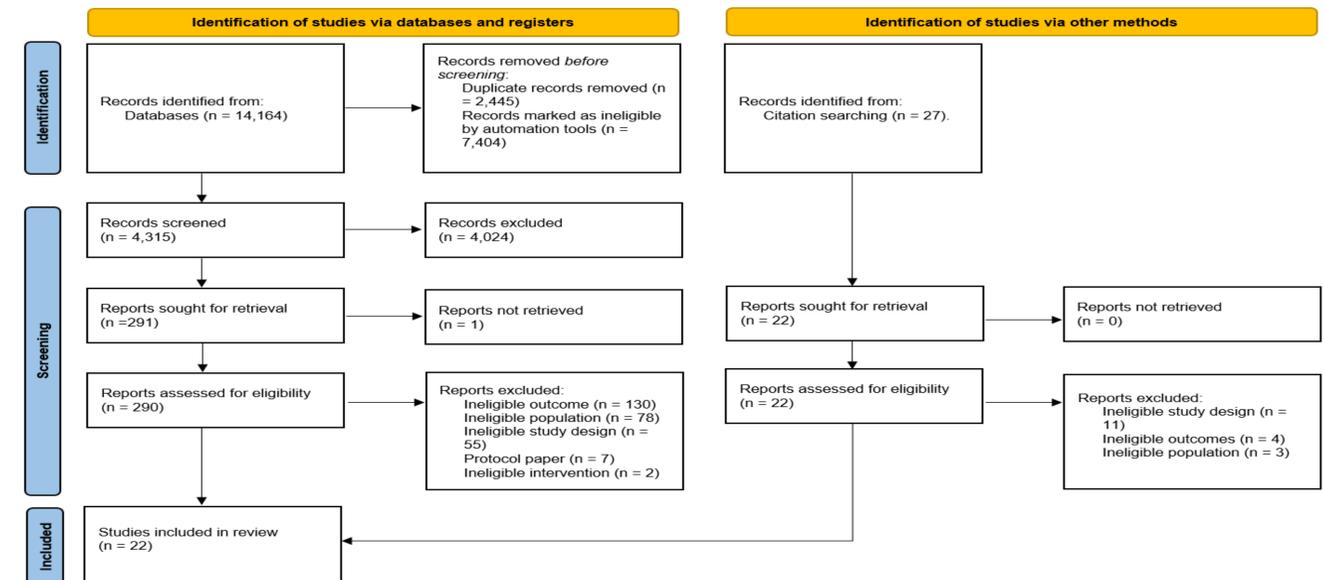
Unique references were then uploaded to ASReview for title and abstract screening. Covidence was used for full text screening.

Extracted data for sample characteristics, outcome measures, study design and study duration, and intervention characteristics

The RoB2 tool, ROBINS-I tool, and the National Institute for Health's Quality Assessment Tool were used to assess risk of bias

Findings

Figure 1 – PRISMA flowchart of study screening and selection



Outcome Measures	# of Studies	Results
Perceived Capability	19 studies reported on 22 unique samples and 62 effect sizes, with a combined sample size of 1849	g = 0.614 95% CI = 0.442, 0.786 I ² = 85.60%
Knowledge	8 studies reported on 10 independent effect sizes and 642 participants	g = 0.792 95% CI = 0.459, 1.125 I ² = 75.52%
Attitudes	8 studies reported on 9 independent samples and 1112 participants	g = 0.376 95% CI = 0.181, 0.571 I ² = 84.98%

Conclusion

- Capacity building interventions are effective at increasing teachers' perceived competence, knowledge and attitudes related to promoting physical activity to their students.
- The most common capacity building intervention component implemented in the identified studies was teacher training/professional development, highlighting the value of providing training to increase teachers' capacity to increase physical activity in their students.

References

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