

The impact of school playgrounds on children's health

October 2024



Sharing research

At the World Playground Research Institute, we are dedicated to sharing valuable insights from research studies and reviews through concise and accessible publications called Briefs.

Briefs provide summaries of key research findings and their implications, serving as valuable resources for policy and decision-makers.

All briefs focus on topics related to the development and design of playground as well as the impact of playgrounds on children's physical activity, mental and social health and motor skills.

To access our briefs, simply visit our website at www.playgroundresearch.org.



Introduction

Active outdoor play is crucial for children's health and development, and school playgrounds provide an ideal space for it. However, the importance of these playgrounds' use for health and well-being is still unclear.

As part of the World Playground Research Institute's comprehensive scoping review conducted in 2024*, **130 studies** related to school playgrounds were extracted from all published research on playground use and its health benefits for children.

The aim was to create a more clear and detailed overview of school playgrounds' impact on children's well-being.

In this brief, we **summarize important insights** from the scoping review, aiming to guide school leaders, policymakers, and practitioners, like landscape architects, in making informed decisions about schoolyard investments and designs.

It also supports researchers in identifying areas for future research needs.

* Schipperijn, J., Madsen, C. D., Toftager, M., Nørager Johansen, D. L., Lousen, I., Amholt, T. T., & Pawlowski, C. (2024). The role of playgrounds in promoting children's health – a scoping review. *International Journal of Behavioral Nutrition and Physical Activity*, 21, Article 72. <https://doi.org/10.1186/s12966-024-01618-2>

Overview of the reviewed school playground studies

Out of the **130 studies**, most were descriptive and exploratory, primarily focusing on physical activity or social health.

Only a few studies addressed motor skills, weight status, and mental health, and – outside the area of physical activity – only a small number of studies were at a higher research quality level.



Research quality level (1=low, 4=high)	Physical health			Social health	Mental health	Number of publications*
	Physical activity	Motor skills	Weight status			
1. Descriptive and exploratory studies	78	1	5	22	6	98
2. Feasibility and pilot studies	12	0	0	4	3	14
3. Efficacy and effectiveness studies	16	0	2	3	3	17
4. Repetition studies	1	0	0	0	0	1
Total school studies	107	1	7	29	12	130

* One publication can include multiple outcomes. For that reason, the numbers in each row do not necessarily sum to the overall numbers.



Recommendations and insights from the playground studies

1

For **policymakers, school leaders, designers, and landscape architects**, the studies recommend:

- Adding **playground markings** in schoolyards has been shown to effectively increase physical activity among school children.
- When renovating schoolyards, **prioritize new play structures**, specifically ones that are customized to meet local needs. While results have been mixed, tailored solutions often yield positive effects.
- Though less studied, **adding green elements** to the schoolyard had mainly positive impacts on physical activity, as well as social and mental health.

2

For **researchers**, the research on school playgrounds:

- **Needs more efficacy and effectiveness studies**, and in particular replication and scale-up studies to demonstrate which type of school playground interventions are successful.
- The existing evidence, however, **provides good arguments for investing** in playground markings and new play structures in the schoolyards tailored to local needs to improve physical activity, and investing in 'greening' playgrounds for social and mental health benefits as well as physical activity.

This brief is based on

- Schipperijn, J., Madsen, C. D., Toftager, M., Nørager Johansen, D. L., Lousen, I., Amholt, T. T., & Pawlowski, C. (2024). The role of playgrounds in promoting children's health – a scoping review. *International Journal of Behavioral Nutrition and Physical Activity*, 21, Article 72. <https://doi.org/10.1186/s12966-024-01618-2>
- World Playground Research Institute. (2024). *Does changing play-grounds have a positive effect on children's health?* [PDF]

Contributors

Internal collaborator

If you have any questions regarding this specific brief, please contact:



Charlotte Pawlowski

World Playground Research Institute

cspawlowski@health.sdu.dk

Editor



Sasha Dilling

World Playground Research Institute

sdilling@health.sdu.dk