



The Associations of Physical Activity Structure on Cognition and 24-Hour Movement Behaviors in Preschool Children: A Cross-Sectional Study

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INTRODUCTION

- Play is crucial for childhood development, fostering cognitive, social, emotional, and physical growth (1).
- Both structured play (goal-oriented, adult-guided) and unstructured play (self-directed, free exploration) contribute to different developmental areas, such as motor coordination, creativity, discipline, and teamwork (2).
- Unstructured play is linked to independence and creativity, while structured play promotes goal achievement and discipline (3).
- The study aims to explore how different types of physical play influence cognitive abilities and movement behaviors in children.

PURPOSE

1. Explore relations between overall play scores and cognitive performance (executive function [inhibition and working memory] and expressive vocabulary).
2. Determine if there are relations between unstructured play, structured play, and 24-hour movement behaviors.

METHODS

Approach

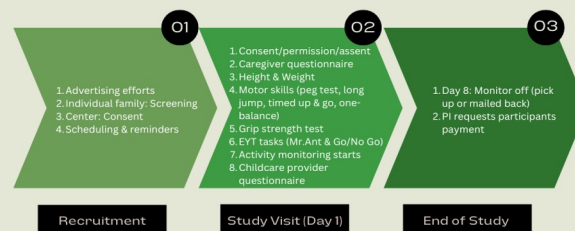
- Participants: Preschool children (2 years 9 months to 5 years 11 months)
- Study Design: Cross-sectional
- Assessment: Questionnaire and activity monitors

Measures

- 24-Hour Movement: Physical activity (sedentary, light, moderate-to-vigorous) and sleep via accelerometers
- Play Type: Structured/unstructured play through caregiver surveys → 8 items will be scored as unstructured and 7 items will be scored as structured
- General: Sociodemographic factors, age, gender, parent education level, race/ethnicity

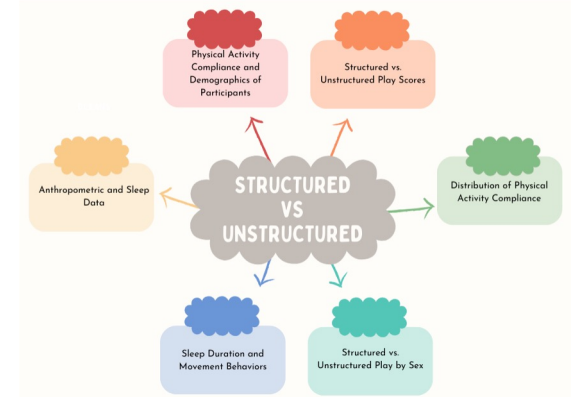


SUNRISE STUDY



PLANNED ANALYSIS

We will conduct correlation analyses to assess the associations between structured and unstructured play, cognitive measures, and 24-hour behaviors.



CONCLUSIONS

- Understanding the unique benefits of each type of play can help tailor developmental strategies to support children's overall well-being.
- This research may provide insights into how structured and unstructured physical play influence cognitive abilities and movement behaviors, contributing to a deeper understanding of childhood development.
- The findings may inform educational and parenting practices, emphasizing the balance of both types of play to optimize developmental outcomes.

REFERENCES

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