Increased Access to Physical Activity For School-Aged Children in Community Settings

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 Increased Access to Physical Activity For School-Aged Children in Community Settings

By Katie Cobb, Allie Peary, Ashley Ricker, and Leah Wilcox

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Introduction

Childhood obesity has reached epidemic levels in the US, with 1 in 5 children having obesity (Center for Disease Control [CDC], 2022). Obesity-related morbidity, such as hypertension, diabetes, and cardiovascular disease are all linked to childhood obesity (Bashir et al., 2020). Physical activity (PA) promotes fitness, bone health, cardiovascular and metabolic health markers, and favorable body composition, as well as reduces symptoms of depression, making it a key strategy to reduce obesity in children (CDC, 2018). There is inequitable access to PA in the United States (CDC, 2020). At the community level, access to facilities and safe neighborhoods play a significant role in children’s PA levels (Hu et al., 2021).

To increase equitable access to PA, the CDC (2011) recommends the following:
1. Community-wide campaigns that deliver messages about PA involvement and provide resources
2. Creating/improving access to places for PA combined with informational outreach activities
3. Street and community-scale urban design and land use policies, such as improving safe street crossings, improving street lighting, and introducing roadway design standards to promote PA
4. Active transport to schools, such as walking or biking

PICO Question

In (P) children 5-18 years old, what is the effect of (I) increased access to physical activity in the community setting compared to (C) no increase in physical activity on the (O) number of minutes a child is physically active?

Methods

- Databases: CINAHL and Google Scholar
- Search Terms: “child*,” “obesity,” “physical activity OR exercise,” “built environment,” and “school”
- Search Criteria: Published between 2017 and 2022
- Exclusion Criteria: Populations <5 or >18 years old, Not peer-reviewed

Increased Access to PA

School and neighborhood settings were the two main settings where access to PA was increased (Ana et al., 2018; Brackney et al., 2021; Dai, 2019; Larouche et al., 2018; Messiah et al., 2017; Ruopeng et al., 2018; Tassitano et al., 2020; Wallace et al., 2022).

Interventions

- Increasing PA may be more effective if multiple interventions are implemented, such as improving walkability of a school route and encouraging walking/biking through education (Larouche et al., 2018; Tyler et al., 2020)
- Fit2Play, which is an after-school, community-based physical activity program, came up multiple times as a key program to increase PA (Wallace et al., 2022; Messiah et al., 2017)
- Other interventions included:
  - Increased recess and PE class (Tyler et al., 2020)
  - Structured PA programs within schools
  - Increasing walkability of neighborhoods through urban design efforts (Monsur et al., 2017; Evaristo et al., 2019)
  - Increased access to PA programs in the built environment, such as recreation facilities for after-school programs or park spaces (Wallace et al., 2022)

Facilitators of PA

Facilitators of PA included:
- Safe walkability of a neighborhood (Evaristo et al., 2019)
- Parental involvement (Dai et al., 2019)
- Increased time spent outside (Monsur et al., 2017)

Results

Increased access to PA

Setting

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Further Research

- While the effectiveness of these interventions has been assessed, more research is necessary to understand the barriers to and facilitators of creating and implementing these programs in the community.
- To interpret the relationship of structured PA programs in and out of school, like Fit2Play, and health impacts on children, we require supplementary investigation.
- Park-based interventions should be researched more closely to understand the value of outdoor PA.

Conclusion

Recommendations

- To improve the quality of future studies, there needs to be standardization of PA measurements.
- Literature suggests that implementation of increased PA opportunities within communities has been effective, so schools and community stakeholders should continue to engage children in efforts to improve PA levels
- Addressing the health inequities surrounding children’s access to PA opportunities is multi-level, which is why community stakeholders, such as nurses, public health experts, and urban design planners, should work together to continue addressing this issue.

References