

COVID-19 “stay-at-home” mandates enacted in spring 2020 led to the closure of schools, after-school programs, parks, playgrounds, and sporting events. This exploratory study aimed to understand how this impacted children’s physical activity.

Background

- The COVID-19 restrictions imposed during the “stay-at-home” period limited children’s opportunity for physical activity at playgrounds, parks, and during sporting events. School closures eliminated physical education classes and recess.
- Most children in the U.S. did not meet recommended activity guidelines prior to COVID-19 and these closures posed added barriers to physical activity.
- The purpose of this study was to explore parent perceptions of changes in elementary-aged children’s physical activity during this period and to identify social and environmental barriers that correlate to these changes.

Research Goals

1. Understand how COVID-19 “stay-at-home” mandates impacted elementary-aged children’s physical activity.
2. Identify perceived social and environmental barriers to children’s physical activity.
3. Provide guidance for future research and interventions aimed at mitigating decreases in children’s physical activity during periods of COVID-19 restrictions.

Methods

- Online survey data was collected from a convenience sample of parents or caregivers of a child aged 5-12 between May-July 2020
- Parents were surveyed about their child’s physical activity, screen-time, and mental well-being prior to and during “stay-at-home” orders.
- Survey data was analyzed using descriptive statistics, bivariate comparisons, and multinomial logistic regressions to explore the influence of perceived social and environmental barriers on children’s physical activity.

Results

- Results from 245 parents found that children’s physical activity:
 - Decreased: 64%
 - Stayed the same: 16%
 - Increased: 20%
- Statistically significantly higher odds of decreased physical activity were found for children whose parents reported lack of adult supervision (OR=11.82, 95% CI 2.48-56.28) and lack of playmates (OR=4.72, 95% CI 2.00-11.17) as perceived barriers as well as those who faced barriers often or always (OR=10.73, 95% CI 1.88-61.23)
- Individual environmental barriers did not predict a change in activity.

Results, continued

Fig 1. Change in children’s physical activity

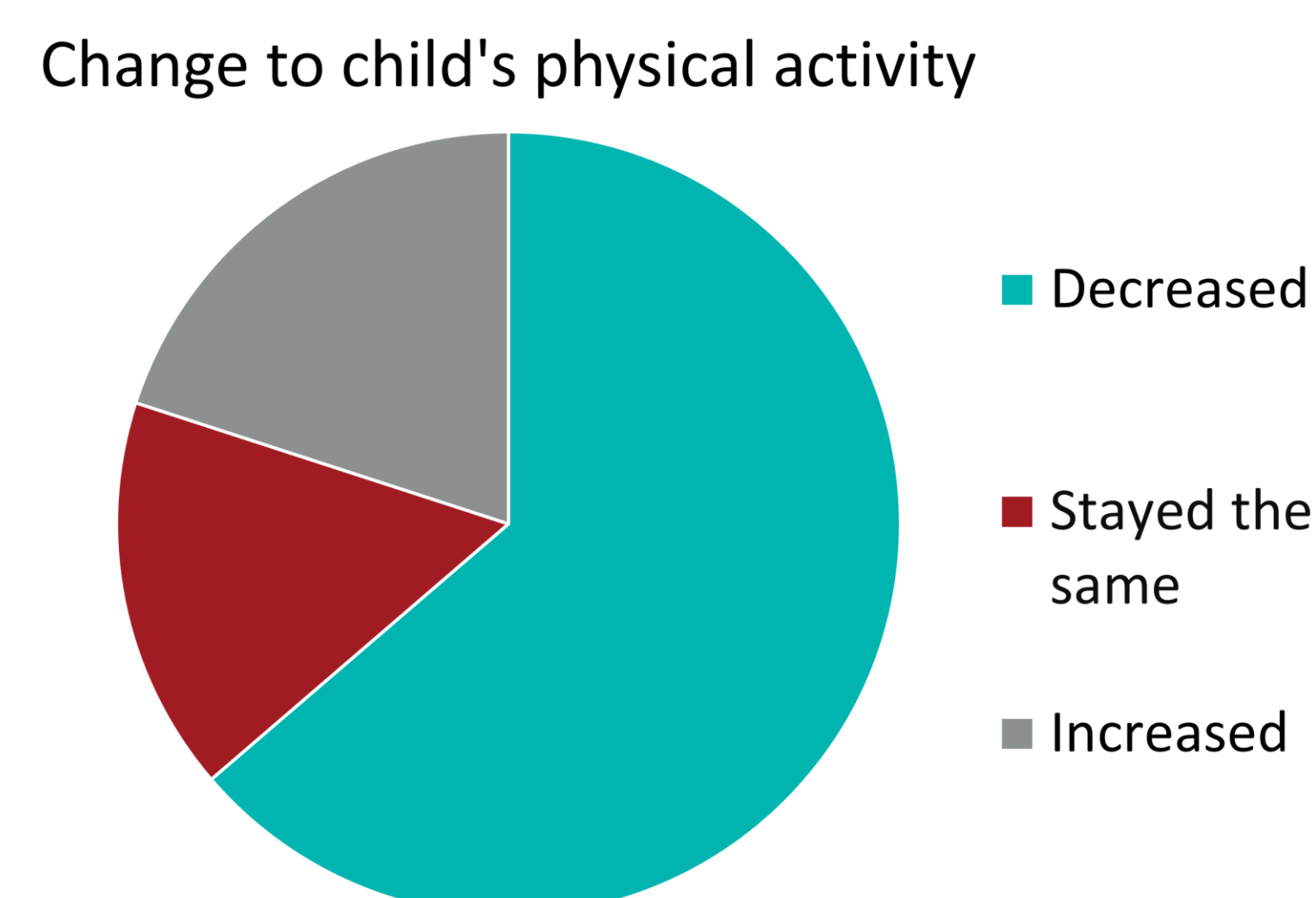


Fig 2. Perceived social barriers to activity

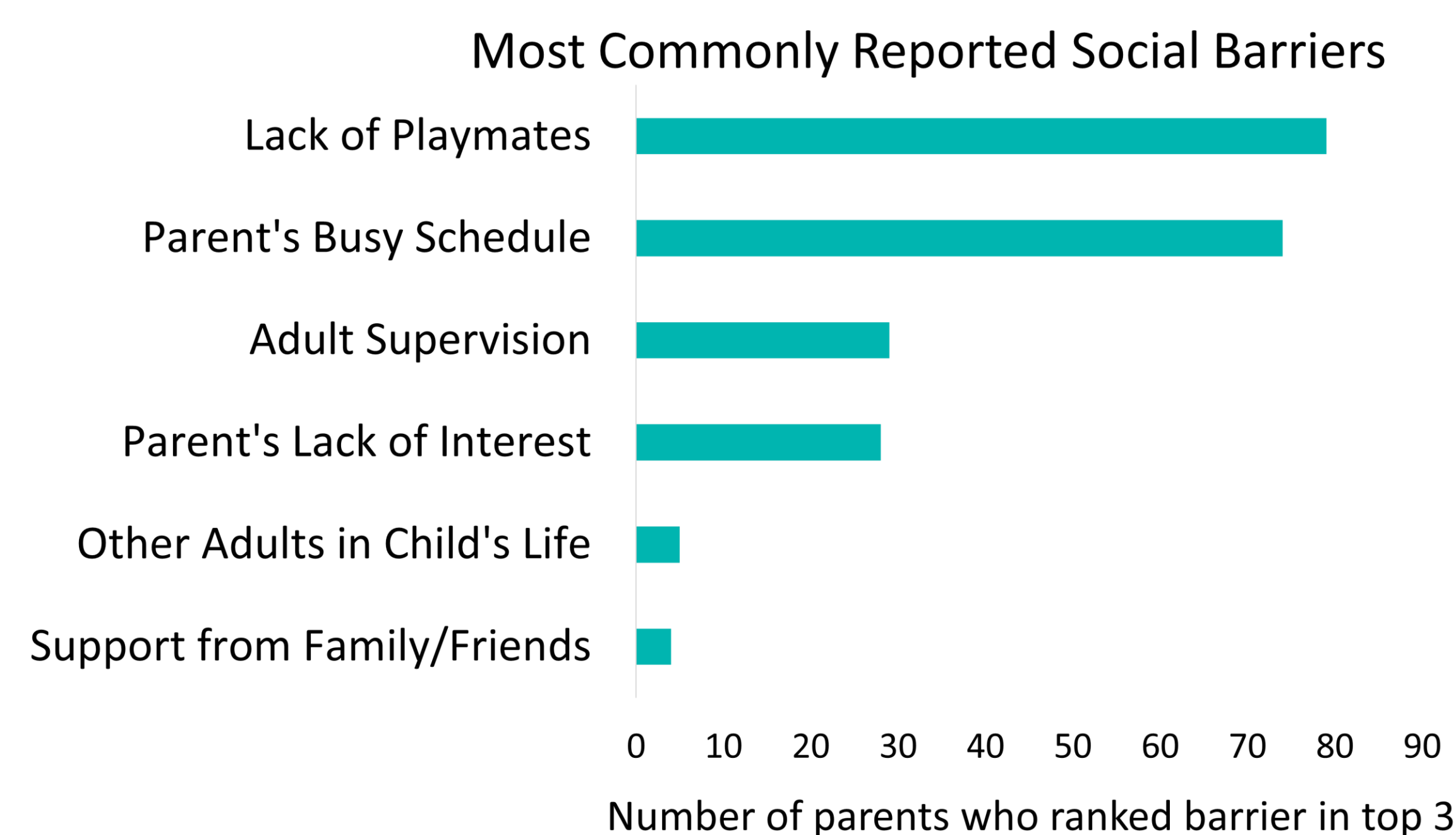
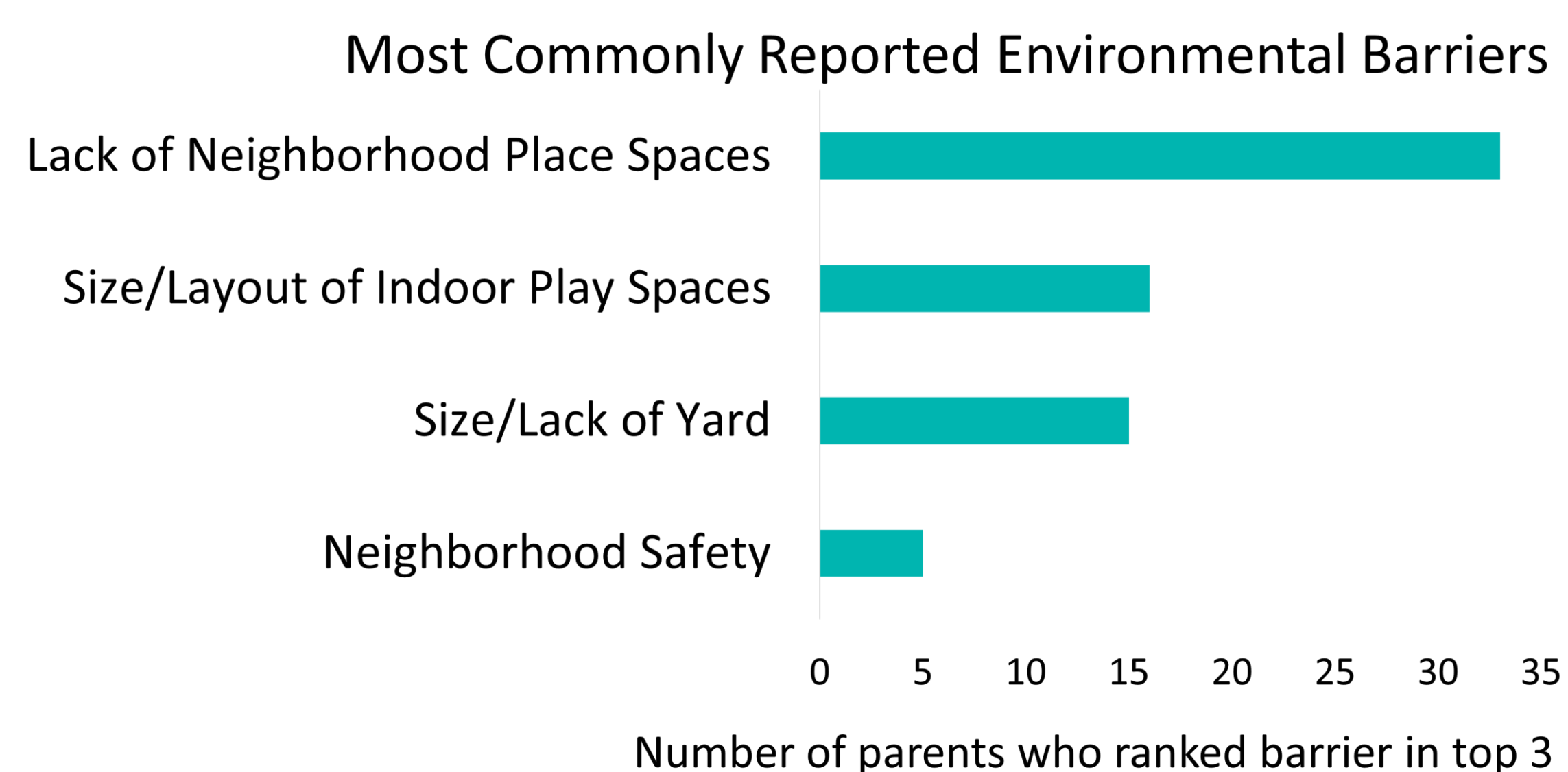


Fig 3. Perceived environmental barriers to activity



Conclusions & Community Relevance

- Parents surveyed predominantly reported a decrease in their child’s physical activity during the “stay-at-home” period.
- The results of this exploratory study suggest that social barriers and the frequency of encountering barriers play an important role in determining a child’s physical activity during this period.
- Understanding the top barriers perceived by parents may help guide interventions aimed at mitigating the effects of COVID-19 restrictions on children’s physical activity.
 - Statistically significant correlations were found between change in child’s activity and adult supervision, parent’s schedule, lack of playmates, size/layout of indoor space, size/lack of yard, and neighborhood play spaces.
 - However, only lack of adult supervision and lack of playmates were found to be statistically significant predictors of a decrease in physical activity.
- This suggests that interventions aimed at providing alternatives to parental supervision and allowing children to connect with peers in a safe and socially distant manner should be a priority.
- Further research with a random, larger and more geographically and racially diverse sample is needed to assess the generalizability of these findings.

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Note: This poster is a product of a Health Promotion and Disease Prevention Research Centers supported by Cooperative Agreement Number U48DP006395 from the Centers for Disease Control and Prevention. The findings and conclusions in this document are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.