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.

**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**
  - Decreased
  - Stayed the same
  - Increased

- **Fig 2. Perceived social barriers to activity**
  - Most Commonly Reported Social Barriers:
    - Lack of Playmates
    - Parent’s Busy Schedule
    - Adult Supervision
    - Parent’s Lack of Interest
    - Other Adults in Child’s Life
    - Support from Family/Friends

- **Fig 3. Perceived environmental barriers to activity**
  - Most Commonly Reported Environmental Barriers:
    - Lack of Neighborhood Place Spaces
    - Size/Layout of Indoor Play Spaces
    - Size/Lack of Yard
    - Neighborhood Safety

**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.

**Contact Information**

Laurel Schmidt: laurel.schmidt@wustl.edu

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