

## 43 Changes in children's lifestyle and outdoor activities due to COVID-19 in Japan

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### Introduction

Outdoor activities are essential for children. Experiences of playing contribute to cognitive, physical, social, and emotional well-being among children and are crucial for their holistic development (Ginsburg, 2007). Currently, concerns have been raised about the decreasing opportunities and orientation of children's experiences of nature and its impact on their overall development (Soga et al., 2018).

Particularly, the spread of COVID-19 has significantly impacted citizens' outdoor living and recreational activities. Many countries have recommended or implemented the STAY-AT-HOME principal and social distancing. Administrators have closed parks or restricted the use of some facilities. These measures have led to significant changes in the outdoor activities of citizens (Doubleday et al., 2021). It has also affected the children as schools and kindergartens were closed, and they were encouraged to stay at home.

In Japan, from late February 2020, the number of people infected with COVID-19 increased. The governor declared a state of emergency on February 28 in Hokkaido, where the infection spread faster than in other parts of Japan. The Japanese government abruptly requested the closure of all elementary schools, junior high schools, and high schools starting March 2. Consequently, universities, high schools, elementary and junior high schools, kindergartens, and daycare facilities were closed, and parents had to stay home to care for their children. Although initially, there were no clear guidelines for going out or playing in parks, one week after the school closure, the government announced that outdoor exercise and walking will be allowed. Although there

were some differences between areas, schools remained closed until the end of May.

The three-month-long closure of schools restricted children's outings and physical activities and significantly impacted their lifestyles, development, and mental health. In this study, we report on the changes in the lives of preschoolers, elementary school students, and junior high school students and indicate how their outdoor activities were changed during this period of school closure. The study is based on a questionnaire survey of children's parents.

### Method

We asked parents of elementary and junior high school students and preschoolers to respond to a questionnaire starting on March 19, 2020. The URL of the online questionnaire site was sent to the mailing lists of the Society for Children's Environment, Association of Private Kindergartens, and other organizations and social media platforms. Overall, we received 923 responses until April 1.

The questions items covered the status of school closure, changes in children's lives, the need for outdoor activities, playgrounds before and during COVID-19, and challenges faced by parents.

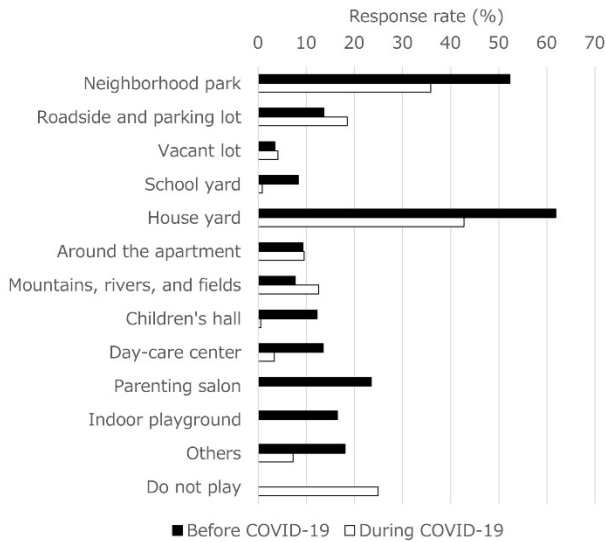


Fig.1 Children's outdoor play locations before and during the COVID-19

## Results

Seventy-eight percent of the respondents' children were not in school, and five percent of the children experienced reduced school hours. Due to the school closure, the children spent more time on indoor activities, such as playing videogames and indoor games and watching TV and videos, and less time on outdoor activities, such as playing outside or meeting with friends. The most common places for playing outdoors were home or friends' gardens and neighborhood parks. In addition, there was a slight increase in the number of children playing in the mountains and at rivers and fields compared to the pre-COVID-19 period.

Fifty-seven percent of the parents considered playing outdoor to be as necessary

as usual, and twenty-six percent said it was more necessary than usual. However, more than half of the parents experienced a lack of information about safe places for their children to play outdoors.

## Conclusion

During the school closure, since outdoor play options had decreased, the children spent most of their leisure time indoors. A study of children and adolescents in Canada reported decreased physical activity and increased sedentary behavior (Moore et al., 2020). Since the school closure lasted for three months, we are concerned about the impact on the children's development. While most children played in their yards or in the neighborhood park, the number of children who played outside, in the natural environment increased. This might be because both children and parents avoided crowded neighborhoods and sought areas with a low population density, such as mountains, forests, and rivers in suburban areas.

Many parents wanted their children to play outside, despite the pandemic. Further, while the government encouraged them to explore less crowded places, the parents lacked relevant information on such locations. Therefore, government agencies and park administrators should provide information on the location of parks and natural outdoor environments with lesser crowds for children to play.