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Influence of Parents' Awareness on Preschool Children's Daily Life and Physical Activities during COVID-19 Pandemic

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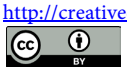

Abstract

This study aimed to determine young children's opportunities for physical activities at daycare centers and at home and to identify the relationship between these opportunities and parents' perceptions regarding the status of young children's physical activities by comparing the conditions at different periods in 2020. The results indicated no difference in the amount and duration of physical activity during childcare between June and October. However, parents were more concerned about their children's lack of physical activity in June than in October. Moreover, physical activity at home was higher in June than in October. The actual activity level of the preschool children did not increase from June to October, and there was no change in their daily life from June when they were aware of the "disorder and collapse" as a crisis. In addition, the mood of the preschoolers was lower in October than in June, suggesting that changes in social conditions, whether good or bad, alter the behavior and perceptions of adults and that these fluid changes may be "a restless situation in which the environment surrounding them is changing further" for the children. Thus, contrary to social trends and adult perceptions, the children's situation did not show a recovery trend.

Keywords

Preschool Children, Parents' Awareness, Physical Activity, Heart Rate, COVID-19 Pandemic

1. Introduction

Traditionally, researchers have considered physical activities such as physical experiences, sports and play, from infancy to childhood as being crucial for

promoting healthy physical and mental growth. Physical exercises also substantially affect the development of social skills, independence, and non-cognitive abilities. The Japan Sports Agency (2021) indicated that children engaging in vigorous physical activities improve their physical fitness, growth, and development. They also develop the foundations of physical abilities by becoming familiar with exercise and sports. Such children also strengthen their physical fitness to protect the body from disease and develop a healthier state of mind. Moreover, physical activity leads to a healthier state of mind by strengthening physical strength to protect the body from disease.

However, less than 40% of toddlers spend less than one hour a day playing outside (Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2012). Therefore, MEXT (2012) "Guidelines for Physical Activity in Early Childhood" states that a total of "60 minutes or more every day" is an appropriate time to be physically active for many young children. Physical fitness tends to be higher in toddlers who spend more time outside. Therefore, young children must be physically active even when not in kindergartens or daycare centers to ensure they have "at least 60 minutes of total physical activity time every day". MEXT (2012) recommends that not only caregivers but also parents and guardians take part in physical activity time together. In particular, the amount of time that young children spend playing outside is influenced by the environment and weather, and is therefore defined as the total amount of time spent in physical activity in a day, including time spent playing indoors (MEXT, 2012).

Previous studies overseas have reported that parents' exercise habits, exercise support for their children, and socioeconomic status of the family are factors related to children's physical fitness (Sallis et al., 1992; Cleland et al., 2005). Japanese mothers' physical activity status and awareness reportedly influence children's physical fitness and physical activity (Baba & Ishiyama, 2008; Kitamura, 2018). In addition, research suggests that parents' exercise preferences have long-term effects on their children's physical fitness because of the reality that children's participation in exercise and sports depends on their parents' intentions (Nagano & Adachi, 2018). However, studies have also reported that parents' exercise preferences do not determine children's physical activity in the lower grades of elementary schools and that providing a uniform exercise environment allows more children to fulfill their desire for physical activity (Nakano et al., 2019). Nevertheless, the social environment surrounding children and the involvement of surrounding adults with children doubtlessly influence children's physical activity status, suggesting the critical role of maintaining and promoting children's health by improving their conditions.

The spread of the novel Coronavirus infection and the prolonged and severe epidemic due to the emergence of mutant strains of the virus have significantly reduced children's opportunities for physical activity, which has raised concerns about their health. Hashimoto et al. (2021) investigated Japanese preschool children's physical activity in 2020, immediately after lifting Japan's emergency

declaration and COVID-19 preventive measures. The study indicated that children had not been physically active for the duration recommended by MEXT (Hashimoto et al., 2021). Hashimoto et al. (2021) emphasized the situation in which activities of preschool children have been greatly restricted in daycare to cope with unusual situations and lifestyle changes. The lack of physical activities and exercise was severely challenging children's health and motor skills development. Hashimoto et al. proposed an approach to childcare that secures "exercise time" for preschool children and increases "exercise intensity" to increase future activity. They also emphasized the significance of further cooperation between the childcare services and parents.

We conducted a physical activity survey at a nursery school in June 2020 (Hashimoto et al., 2021) and we performed a follow-up survey approximately four months later, in October. We hypothesized that the preschool children's environment and physical and mental health would improve due to the changes, including the decrease in the prevalence of infections in Japan, the easing of restrictions on movements and behaviors, and improvements in the country's economy and human activities. We considered it necessary to understand parents' perceptions to strengthen the cooperation between caregivers and parents, as proposed by Hashimoto et al. (2021). This study aimed to demonstrate the relationship between parents' perceptions and the physical activity status of preschool children and compare the conditions at different times during the 2020 COVID-19 pandemic.

2. Methods

2.1. Participants

Healthy children without neurological or orthopedic diseases enrolled in a nursery school in Japan ($N = 34$; 17 girls and 17 boys; ages 3 and 6 years) and their parents participated in the study. The private nursery schools had been in operation during the period from March to May of 2020, when all public schools and preschools in Japan were closed, and thus the target nursery school were determined. Of all children aged 3 to 6 years enrolled in the nursery school, only those with written consent from their parents or guardians were included in the study. We classified the children into three categories based on their age; A ($n = 13$): born in April 2016-March 2017, B ($n = 12$): born in April 2015-March 2016, and C ($n = 9$): born in April 2014-March 2015. (The Japanese school year begins in April and ends in March). We obtained the consent of the director of the daycare center before conducting the study. We also explained the study's content to the nursery teachers and children's guardians orally and in a written statement of purpose before completing the survey. We included only children of parents that gave written consent for their children's participation in the study.

2.2. Survey Period

We surveyed for seven days, from June 15 to 21 in 2020 (immediately after lift-

ing the first emergency declaration) and from October 6 to 12 in 2020 (during the domestic economic policy implementation period). Table 1 shows the Coronavirus spread in Japan in 2020 and the timing of the survey. The physical activity survey in June included 21 subjects already reported by Hashimoto et al (2021) as a survey of physical activity in childcare. Therefore, in this study, a similar physical activity survey was conducted in October in order to compare the data with this study.

2.3. Survey Contents

2.3.1. Physical Activity during Childcare

The children wore a wristwatch physical activity monitor (Polar, A360, Finland, WD) on their non-dominant wrist during morning activities, approximately three hours after starting school and before preparing lunch from Monday through Friday. The children's personal information, including the date of birth, gender, height, and weight, was entered into the WD one week before measurement. We set the exercise intensity at 70% HRmax. We calculated the "moderate vigorous physical activity (MVPA) time" as the time required for physical activity at an exercise intensity of 70% HRmax or higher.

2.3.2. Record of Activities during Childcare

Nursery teachers recorded the children's main activities and duration from their arrival at school until lunch. We used a video camera to record images during free play in the yard and outside the school. We placed the camera in a position that allowed the researchers to observe the entire activity area. The researcher recorded the content of the children's play on a recording form based on the video.

2.3.3. Questionnaire Survey of Parents

The survey items included (1) observations of the child's condition from the

Table 1. 2020 domestic situation and timing of the survey in Japan.

date	Domestic Situation	T study's survey period
4/7	State of emergency declared in 7 prefectures	
4/16	State of emergency Expanded Nationwide	
5/25	Emergency Declaration lifted	
6/19	Inter-prefectural movement restrictions are completely lifted.	6/15-6/21: June Survey Period
7/22-12/27	Various Go to Campaigns (Travel, Eat, Event, Shopping Arcade, etc., implemented in sequence	10/6-10/12: October Survey Period
1/7	The government re-imposed the emergency in Tokyo and three prefectures.	
1/13	Declaration of state of emergency expanded to 11 prefectures	

guardian's perspective, (2) sleeping time, (3) morning mood, (4) appetite, and (5) specific details of the time spent on physical activities at home. The questionnaire (1) asked for free-response answers about the children's life, physical activity, and emotional aspects. The data from (2) to (5) were recorded every day for 7 days during the survey period. (2) The sleep duration was analyzed by converting the minutes into hours. (3) We asked the children to record their mood each morning on a three-point scale consisting of "good," "normal," and "bad," and we converted their assessments into 3, 2, and 1 point, respectively. We recorded the children's appetite at lunchtime on a 5-point scale ranging from 5 (very good) to 1 (not good). The parents recorded their children's appetite for lunch at home, and their children's homeroom caregivers recorded their appetite for lunch during childcare. (5) The parents recorded the details of daily physical activity hours and the specific activities at home.

2.4. Comparisons

The amount of physical activity, duration of activity, and intensity of physical activity per day using heart rate measured in the morning, and the health status of the children obtained from the parent questionnaire were compared by two-way ANOVA with the survey time (June and October) and day of the week (Monday through Sunday) as within-subject factors.

We conducted post-hoc comparisons for significant interaction. We performed all the statistical analyses using IBM SPSS Statistics version 27. We set all significance levels at a probability of less than 5%. Independent t-test indicated no significant differences between the sexes, height, or weight for any of the analyzed items. Therefore, we did not consider sex differences in the subsequent analyses.

3. Results

3.1. Activity

The weather during the study periods in June and October was similar, with rainy Thursdays and Fridays limiting the children's activities inside the nursery. The children had to use a park without fixed outdoor play equipment in June, but this changed in October when four parks around the nursery became available for outdoor play. Masks were worn during indoor play to prevent infections. The children continued to practice physical activities and exercise, including gymnastics, circuit exercises, and Field Day exercises that they performed alone. Table 2 shows the main activities by grade level during each study period.

3.2. Preschool Children's Physical Activities and Activity Time

We measured the physical activity in the morning on the five childcare activity days and compared the physical activity status of the children between June and October. We confirmed the activities conducted by children in the study months using the mean MVPA activity time (minutes). The results indicated a significant

Table 2. Main activities during the study periods by grade level.

June					
class	Day of the week				
	Mon.	Tue.	Wed.	Thu.	Fri.
	Sunny	Sunny	Sunny	Rain	Rain
A class	Outdoor play (at park)	Indoor play	Outdoor play (playground + at park), Gymnastics	Exercise play (indoor)	Indoor play
B class	Outdoor play (at park)	Outdoor play (at park)	Outdoor play (playground + at park)	Exercise play (indoor)	Indoor play
C class	Outdoor play (at park)	Indoor play	Outdoor play (playground)	Exercise play (indoor)	Indoor play
October					
class	Day of the week				
	Mon.	Tue.	Wed.	Thu.	Fri.
	Sunny	Sunny	Sunny	Rain	Rain
A class	Field Day exercises, Indoor play	Outdoor play (playground)	Outdoor play (playground)	Exercise play (indoor)	Field Day exercises
B class	Field Day exercises, Outdoor play (at park)	Outdoor play (playground), Field Day exercises	Outdoor play (playground), Field Day exercises	Exercise play (indoor)	Field Day exercises
C class	Field Day exercises, Indoor play	Outdoor play (playground), Field Day exercises	Field Day exercises	Exercise play (indoor)	Field Day exercises

positive correlation ($p < 0.001$, r = 0.686) between June (14.24 ± 9.39) and October activity (12.82 ± 10.62). A paired t-test showed no significant differences in the mean MVPA activity time (minutes) for each survey month ($t = 1.029$, $df = 33$, *n.s.*). As shown in Figure 1, a two-way ANOVA with the survey time and the day of the week as within-subjects factors revealed an interaction between the month and the day of the week, indicating that the mean heart rate was significantly different depending on the activity ($F(4, 48) = 5.497$, $p < 0.01$). A two-way analysis of variance with survey time and day of the week as within-subjects factors revealed an interaction between the survey time and day of the week, indicating that changes in MVPA activity time were significantly different according to the survey time ($F(2.296, 27.554) = 6.190$, $p < 0.01$). However, the results of post-hoc tests showed no significant differences by survey time.

Comparison using Friedman's test showed significant differences in MVPA activity time on each day, and subsequent multiple comparisons confirmed significant difference, as shown in Figure 2. In particular, the average heart rate exceeded 120 bpm and MVPA activity time was at least 20 minutes on Mondays and Wednesdays of June and Tuesdays of October when outdoor playtime was conducted for all grades.

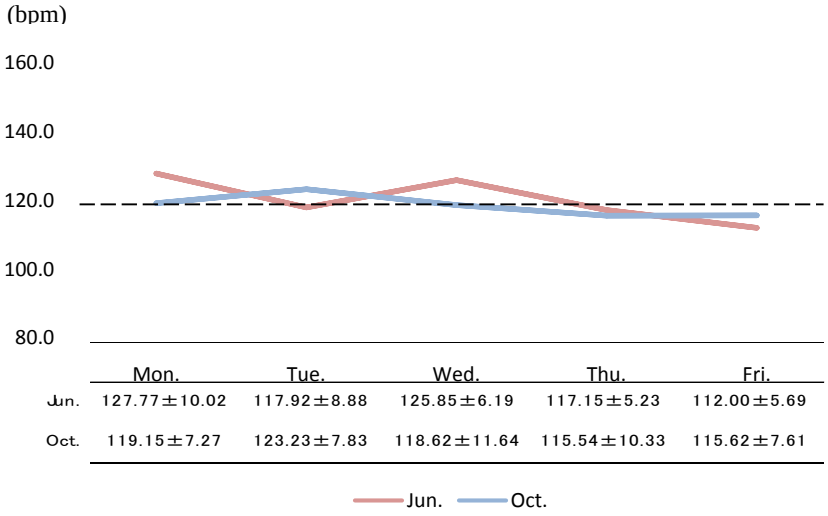

Figure 1. Comparison of average heart rate by day of the week.

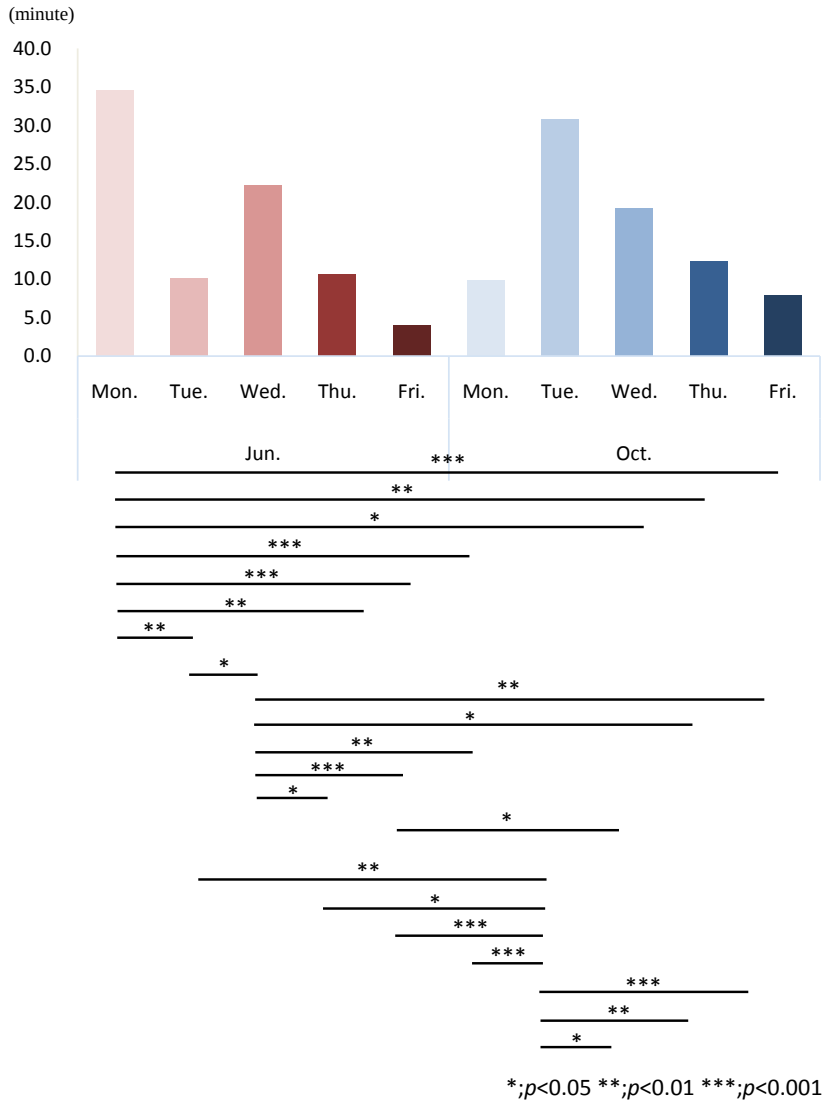

Figure 2. Comparison of MVPA activity times.

3.3. Preschool Children's Physical, Emotional, and Daily Life

The two-way ANOVA indicated no significant differences in bedtime trends between June and October. However, there was a significant positive correlation between the mean bedtime in June and October ($p = 0.000$, $r = 0.863$) and no significant difference between the mean bedtime in June (21.57 ± 0.71 hours) and October (21.62 ± 0.71 hours). Moreover, there was no significant difference in the mean sleep duration in June (9.11 ± 0.68 hours) and October (9.21 ± 0.61 hours). The parents recognized the adverse effects of the Corona epidemic on their children's sleep status in June, saying, for example, "sleeping later (staying up later)" and "irregular life rhythms." No sleep-related improvement was observed in the subsequent survey in October. Appetite between June and October was significantly and positively correlated ($p = 0.001$, $r = 0.563$). A two-way ANOVA revealed no significant difference in appetite between June (3.63 ± 0.71) and October (3.46 ± 0.64) or between the days of the week. Parents commented, "When I spend much time at home, my life is inevitably disrupted." "The most significant change was the increase in the frequency and quantity of meals during the daycare period," and "His poop was hard, and it seemed difficult to defecate."

A comparison of the study months using the Wilcoxon signed rank test indicated the time of activity at home, including physical exercise per day during holidays (Saturday and Sunday), was significantly shorter in October (13.25, 0.75 - 33.13; median value) than in June (16.25, 7.75 - 58.13). ($z = -2.130$, $p < 0.05$).

Parents' perceptions, based on their free descriptions, were as follows. "I think that since they rarely have physical activities at home, their physical activities were significantly reduced in June because they could not go to the daycare center." "I felt they were a little stressed because they could not move their bodies much on the playground equipment." "I felt they could not go outside all day, so I felt they were not physically active." "I felt they were stressed out because they couldn't do much physical activity on the playground equipment." among others.

The parents also made the following comments in addition to the above concerns about the decrease in opportunities for children's physical activities that were different from usual and the effects of this decrease. "I walked the children daily for one hour in the morning and the evening to keep their physical strength up." "I introduced different physical activities such as walking and climbing because the playground equipment was closed." "I went to the park every day, but I spent many days at home and worried about how much physical exercise they should get."

In October, many descriptions show the children's awareness of finding opportunities for exercise, including "I went out and played outside every morning and evening." "I was worried about how much exercise I should get." "I tried to go outside every morning and evening. Children also made the following statements in October." We spend a little more time going out and playing outside."

"Our off-days are more active than before." "We can see our friends at the park and have more opportunities to be physically active together." In addition, the parents made the following statements. "During the self-restraint period, we used to take a walk to the park every day, but now we hardly go to the park anymore. However, now that the children get enough exercise at preschool," "I think that the amount of physical activity has increased since they started going to preschool."

Figure 3 compares the daily mood of the week between June and October, indicating that the mood on Mondays ($p < 0.001$), Thursdays ($p < 0.001$), and Fridays ($p < 0.01$) were significantly better in June than in October. Moreover, there were no significant differences in mood on the other days of the week.

Parents' comments on their children's moods included the following statements. "They were happy because they had been with their parents and siblings all the time in June. But, the children seemed to become anxious after starting the regular daycare." "He was angry and threw tantrums more than usual. He cried a lot." "He often said things like, 'It's because of COVID19,' among others." "He had little fun because he repeated the same thing every day, and sometimes he felt stressed out. However, spending time at home helped stabilize her mentally." "Her mood was always good," and in October, "She spent time with

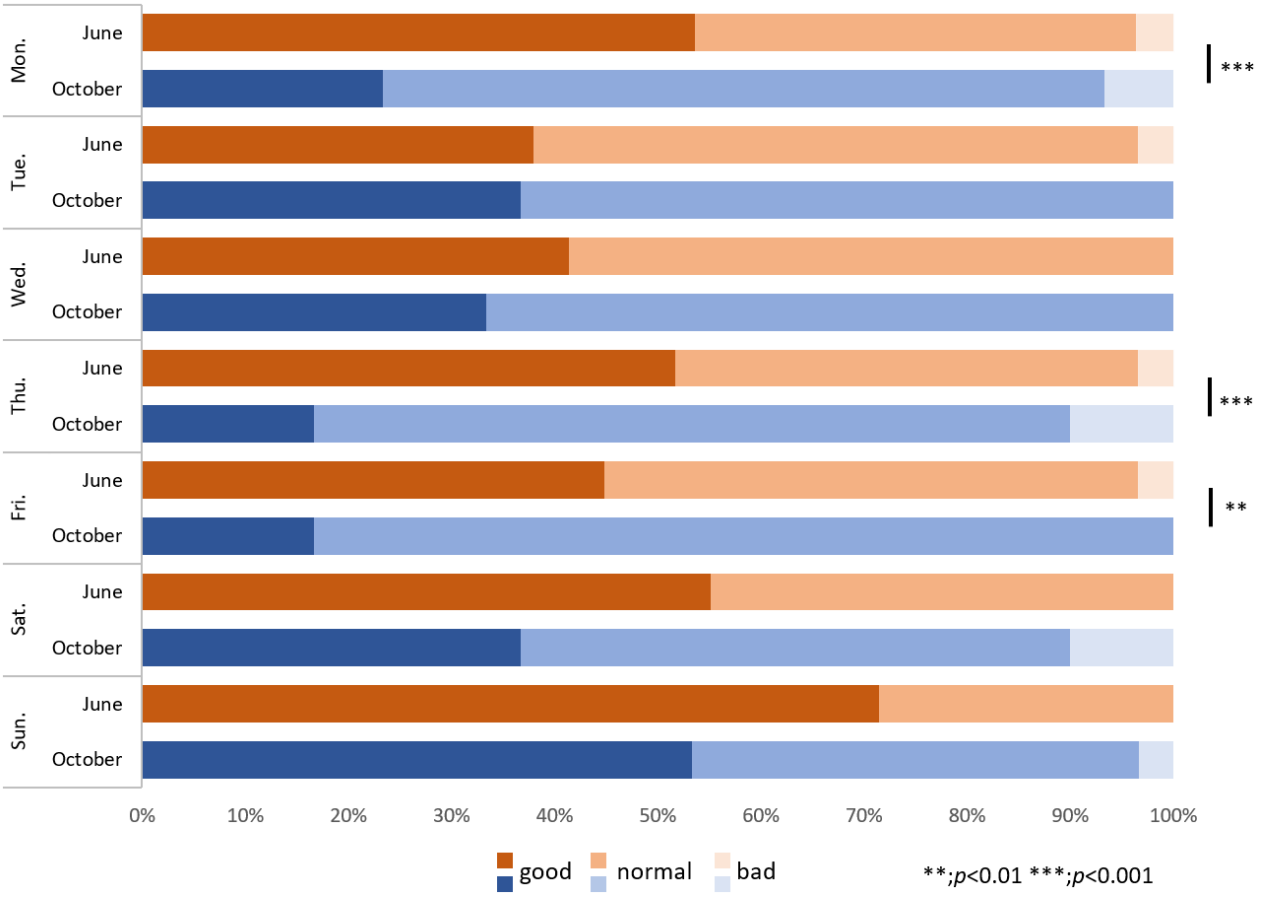

Figure 3. Comparison of mood by the day of the week.

her siblings and grandmother during the outbreak, but she played with her older brothers and was in a good mood. However, when she started going to the daycare center again, she asked, "Is there a day off today?" "My son's emotional state feels unstable." "Playing with his friends at daycare makes him less likely to go on a rampage at home." "He spent time at home with his mother and sister, but he was always following someone around. Now he spends time calmly by himself. He still sucks on her whenever he has a chance." "His moods deteriorate quickly," "He watches TV more and more and has become violent," and other descriptions were found.

4. Discussion

This study aimed to determine young children's opportunities for physical activities at daycare centers and home and to identify the relationship between these opportunities and parents' perceptions regarding the status of young children's physical activities by comparing the conditions at different periods in 2020. The results indicated no difference in the amount and duration of physical activity between June and October. One reason for this result was that post-coronavirus group life in preschools included COVID-19 prevention measures regardless of the society's infection situation, which did not return to the pre-corona lifestyle. Another reason for the results was the emphasis on establishing a stable daily rhythm and life pattern, particularly for preschool children. As a result, there was little change in childcare content, and the increase in physical activity was limited.

Comparing activity levels indicated that the average heart rate and MVPA time were significantly higher on the three days that all the children played outdoors than on the other days. Nevertheless, the MVPA time was less than 15 minutes on Thursday, perhaps because physical education activities were held indoors in rainy weather. These results suggest the significance of outdoor free play for ensuring sufficient physical activities.

The bedtime and appetite of the preschoolers were similar in June and October and did not change during the survey months. Moreover, the parent's perception of their children's lifestyle was often critical, as shown by statements such as, "the rhythm of life was disrupted due to lifestyle changes such as refraining from going out," but there were no improvements with time. In addition, changes in social conditions, whether good or bad, transform the behavior and perceptions of adults. This unstable change is "an unsettled situation in which the environment surrounding them is further fluctuating" for the preschool children, suggesting that their living environment continues to be unstable.

Parents were more concerned about their children's lack of physical activity in June than in October. Moreover, physical activity at home was higher in June than in October. The parents focused on protecting the health and safety of their children when the first Japanese Corona outbreak happened in June. As a result,

parents might have been able to ensure more physical activity at home on holidays than usual. After reopening daycare centers, parents might have mistakenly believed that their children would experience the usual level of physical activity. As a result, their duty to "care about their children's exercise at home" might have decreased, resulting in fewer physical activities with their children or taking them outside to play.

A significant decline in physical fitness might occur if children lack exercise and have reduced opportunities for exercise for a prolonged period. The 2021 Physical Fitness and Exercise Ability Survey results, conducted nationwide each year with elementary and junior high school students, show a sharp decline in male and female students' fitness compared to 2019 (Japan Sports Agency, 2021). The Japan Sports Agency (2021) attributes this decline to the decrease in exercise time due to the spread of the Coronavirus and the increase in time spent using smartphones and other devices.

The parents' perception of their children's emotional state and the morning mood was worse in October than in June on Mondays, Thursdays, and Fridays. The children's emotional instability at the beginning of the week and the poor mood in the latter half of the week might have been influenced by the stress and fatigue they felt at home and the preschool childcare center. For example, it is possible that the lack of time for activities such as physical exercise and involvement with parents at home on holidays made children reluctant to go to the preschool childcare center on Monday mornings and that the disruptions to their lives on weekdays caused an accumulation of fatigue resulting in mood swings in the latter half of the week. Nojo et al. (2021) classified the difficulties faced by parents of infants and toddlers during the Corona epidemic into nine types of problems: "playground," "impact of absence from school," "time use," "stress," "fear of infection," "lost opportunities," "sibling relationships," "outlook," and "lack of exercise." Among these, the contents of not being able to go outdoors, including "going out/being outside/going out" and "playing/playing with others," were prominent. This finding suggested that "making the child feel stressed" was a source of parental stress (Nojo et al., 2021). This situation is similar to parents feeling intense stress, immediately after the voluntary absriod from preschool, in June. These difficulties might have reinforced their sense of mission and the child-rearing crisis. As a result, they might have tried to be sensitive to their children's situation and responded to it in detail. However, the tendency for the Coronavirus infections to subside and the increased sense of security, especially after resuming children's attendance at preschool childcare centers, might reduce parents' sense of crisis regarding their children's health and living conditions. Unfortunately, the change in how parents perceive the social situation is affecting children's lives and physical activity status. Parents' acceptance of Corona infections was causing the status of children's physical activities to deteriorate.

In February 2020, MEXT (2020a) announced that all schools and kindergar-

tens in Japan would be closed for an emergency. At that time, the health consciousness of parents and guardians in the child-rearing generation was geared to a "critical situation." As a result, they refrained from going outside to prevent infectious diseases, and children were kept inside as much as possible to avoid contact with people. Moreover, opportunities for outdoor play were drastically reduced. However, about two weeks later, MEXT (2020b) expressed the importance of ensuring that children have exercise opportunities to prevent physical inactivity and stress to maintain their health. MEXT recommended daily exercise such as jogging, walking, and skipping, among others, should be conducted in a safe environment after taking measures to prevent infections. Furthermore, MEXT recommended that schoolyards, gymnasiums, and public sports facilities be kept open to the public and that protective measures be taken to prevent infections. MEXT also emphasized the significance of giving opportunities for students to exercise. However, many municipalities continued to ban the use of schoolyards, gymnasiums, and public sports facilities. Therefore, although the government and specialized agencies provided revised information, this information did not reach the children's environment and remained unknown.

The rate of Coronavirus infection began to improve gradually during the October survey, and the epidemic seemed to be ending. As a result, the country geared itself toward economic recovery and the public's overall satisfaction with their lives. The teleworking rate among workers returned to pre-Corona epidemic levels (Cabinet Office, 2020a, 2020b). Furthermore, the Vital Signs of Economy-Regional Economy Society Analyzing(V-RESAS) data on the domestic situation in 2020 shows a crisis in the year's first half and a temporary recovery in the second half (Cabinet Office, 2021). However, the children's situation was not in line with the changing reality, and no concrete improvements were observed in the children's conditions, contrary to the parents' perceptions.

Since then, measures against infections in children, including the vaccination of younger children, have been discussed. However, improving basic physical fitness and motor skills is essential to maintain and promote health in early childhood, which is the critical stage of development. It is also necessary to develop different opportunities for early childhood physical activities to ensure the recommended amount of physical activities to promote children's physical growth and development after elementary school. Furthermore, different early childhood physical activity opportunities must be created to ensure that children receive the recommended degree of physical activities to promote their physical growth and development after entering elementary school. Parents and caregivers' recognition of children's conditions in child care and nurturing while taking infectious disease prevention measures will determine how children's health, growth, and development are maintained and improved. The results of this study indicated the significance of caregivers, parents, and guardians increasing their awareness and time for providing opportunities for children's physical activities. Providing prompts, accurate information, and daily educational activi-

ties through local governments and childcare and educational institutions should be considered to promote cooperation between local communities and families to develop an awareness of children's physical activities among parents.

5. Limitations

One limitation of the study is that we collected data only for one week in each survey month. In particular, the amount of time spent exercising on weekends should consider uneven due to family circumstances and the physical condition and mood of the children and their guardians. We should have measured physical activity based on exercise intensity. Nevertheless, this study clarified that the amount of physical activity is fundamentally insufficient since the recommended duration of physical activity is "at least 60 minutes a day, every day".

6. Conclusion

In this study, we clarified the physical activity status of preschool children under different conditions of the Corona Disaster, based on the physical activity time in daycare on weekdays and the physical activity time at home on weekends and holidays. In addition, we analyzed the relationship between the physical activity status, the parents' awareness, and the children's living conditions during each survey period by questionnaires to the parents. The survey results showed that the social conditions were recovering in October compared to June. Also, preschool children's parents decreased their sense of crisis and an increased sense of security from recognizing that their children's care was improving with social conditions. Despite this, the actual activity level of the preschool children did not increase from June to October, and there was no change in their daily life from June when they were aware of the "disorder and collapse" as a crisis. In addition, the mood of the preschoolers was lower in October than in June, suggesting that changes in social conditions, whether good or bad, alter the behavior and perceptions of adults and that these fluid changes may be "a restless situation in which the environment surrounding them is changing further" for the children. Thus, contrary to social trends and adult perceptions, the children's situation did not show a recovery trend.

This study revealed that the children's behavior and lifestyle did not improve and their physical activity status did not recover, even though the world situation and the behavioral restrictions of the coronas were lifted.

As for the effects of COVID-19, which is a special situation, the "reduced activity situation" became the norm after COVID-19, and the children's environment and situation did not automatically return to their previous state even if the world situation changed. In particular, the amount of activity during childcare is maintained at a reduced level.

A detailed understanding of the actual conditions of the preschool children based on the parents' observation records overturned the hypothesis and revealed discrepancies between society and the children's conditions. In particular,

early childhood is a period in which parents' thinking and behavior are directly linked to their children's condition. Close cooperation with caregivers is essential to recognize children's position and situation properly. Moreover, we can maintain children's health only if each family fully fulfills its roles and responsibilities.

To summarize this study, it is necessary to create a system that allows parents to consciously create sufficient opportunities for their children to exercise through active encouragement from preschools, the government, and others. In addition, parents should ensure that their children have sufficient time for physical activity at home on weekends and holidays to meet the recommended level of "at least 60 minutes of physical activity per day".

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Conflicts of Interest

There are no conflicts of interest to be disclosed for this paper.

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