

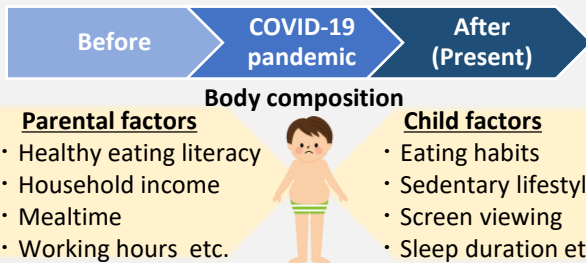


Children's Body Composition and Parental Healthy Eating Literacy during the COVID-19 Pandemic

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Objectives

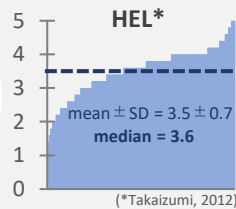
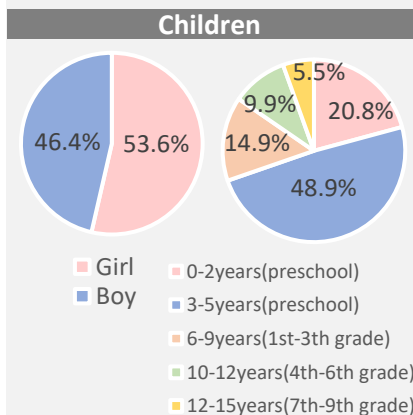
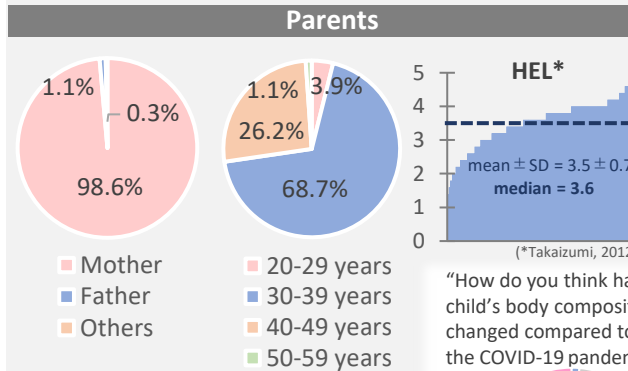
For young children, parents are the ones who have a great impact on their lifestyle. This study aimed to investigate the relationship between **changes in children's body composition** and **parental Healthy Eating Literacy (HEL)** during the COVID-19 pandemic.



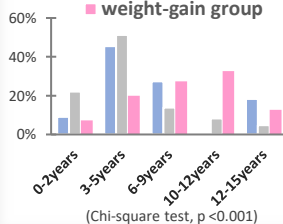
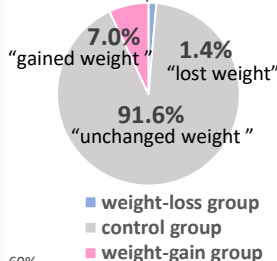
Materials & Methods

From December 2021 to January 2022, consenting **parents with children aged ≤15 years** were asked to complete an anonymous online questionnaire after being recruited using social networking services. Besides parental HEL-related questions, the questionnaire also included questions about changes in children's body composition and dietary habits in three different time periods; **before the pandemic** (until February 2020), **during the pandemic** (from March to December 2020), and **at present time** (when the virus infection has settled down). Data from 785 parents were analyzed using SPSS software.

Results



"How do you think has your child's body composition changed compared to before the COVID-19 pandemic?"



Children's body composition and parental HEL



Association of children's diet with parental HEL

(during the pandemic/at present time)
(Correlation analysis, All p < 0.05)

- Protein-rich diet (r=0.173/ r=0.154)
- Calcium-rich diet (r=0.164/ r=0.171)
- Iron-rich diet (r=0.149/ r=0.169)
- Vitamin D-rich diet (r=0.167/ r=0.170)
- Vegetable-rich diet (r=0.154/ r=0.127)
- Fruits-rich diet (r=0.137/ r=0.105)
- Nutrient-rich snack (r=0.083/ r=0.084)
- Supplements (r=0.142/ r=0.153)
- Ice cream (- / r= - 0.135)
- Soft drink (- / r= - 0.092)

Children's gained weight and the related factors

Independent variable	Odds ratio	95% CI
Child age	1.271	1.169 – 1.382
Child sex	0.987	0.529 – 1.871
Household income (during the pandemic)	1.283	1.019 – 1.616
Parental HEL	0.488	0.321 – 0.742

(Logistic regression analysis)

Conclusions

The COVID-19 pandemic may have affected the body composition of children, especially those in preschool and elementary school. Improving parental HEL may be beneficial to children's health, particularly in terms of obesity prevention.



Keywords children, body composition, healthy eating literacy, dietary habits, COVID-19

The authors have no financial conflicts of interest disclose concerning the study.