Trends in Overweight and Obesity Among Children and Adolescents in Qatar Before and During the COVID-19 Pandemic: A Retrospective Cohort Study

Ahmed Mohamed Kahlout [1], Khadijeh Alhubidi [2], Maher Salah [3]

1 Dr. Ahmed Mohamed Kahlout, Senior Consultant in Pediatrics, Primary Health Care Corporation (PHCC), Qatar
2 Dr. Khadijeh Alhubidi, Consultant in Family Medicine, Primary Health Care Corporation (PHCC), Qatar
3 Dr. Maher Salah, Specialist in Family Medicine, Ministry of Health (MOH), Jordan

Correspondence:
Dr. Ahmed Mohamed Kahlout,
Senior Consultant in Pediatrics, Primary Health Care Corporation (PHCC), Qatar
Phone: +974 5551 2465
Email: akahlout@phcc.gov.qa

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Abstract

Background: Due to the COVID-19 pandemic lockdown, countries implemented health preventive measures, including travel bans, online schooling, restricted access to parks and beaches, and restrictions on all other gatherings. In Qatar, schools implemented virtual learning, families relied on online shopping, and for almost six months, children were mainly confined to their homes, leading to drastic lifestyle changes across society, especially among children and adolescents.

This study aimed to examine trends in the prevalence of overweight and obesity among children and adolescents attending Primary Health Care Corporation (PHCC) health centers in Qatar before and during the COVID-19 pandemic.

Methods: This retrospective cohort study used longitudinal electronic health record data from children and adolescents aged 2–18 years attending PHCC health centers in Qatar between 1 January 2017 and 31 July 2021. Participants entered the cohort when they first met the eligibility criteria and were followed longitudinally through subsequent years. Each participant was followed across subsequent years using their available BMI measurements. Overweight and obesity were classified according to WHO growth references, and trends were assessed using chi-square tests for trend. Analyses were performed using SPSS version 28.0.

Results: A total of 160,209 cases aged 2 to 18 years were followed from January 2017 to July 2021. Females were 77,904, representing 48.6%, and males were 82,305, representing 51.4%. In 2017, the overweight rate was 6.4%, while the obesity rate was 5.6%. In 2018, overweight was 8.1%, and obesity was 6.7%; in 2019, overweight was 11.0%, and obesity was 9.8%. In 2020, overweight was 16.6%, and obesity was 15.2%. In 2021, overweight was 15.5%, and obesity was 16.3%.

Conclusions: During the study period, obesity almost tripled, starting from 5.6% in 2017 to 16.3% in 2021. The overweight rate more than doubled, increasing from 6.4% in 2017 to 15.5% in 2021. This showed an increasing trend in obesity and overweight among children aged 2–18 years before the pandemic, with a further increase during the pandemic period. Males showed a significantly higher prevalence of obesity than females. Based on the study results, we recommend a national strategy for preventing, screening, and managing obesity and overweight involving families, schools, and the health sector.

Keywords: Obesity, Prevalence, COVID-19, Lockdown, Overweight