

Childhood Obesity: Still a Major Concern

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Overweight and obesity are defined as “abnormal or excessive fat accumulation that presents a risk to health”.¹ The prevalence of obesity is increasing every year and has nearly tripled since 1975. More than 19 billion adults in 2016 and about 89 million children under the age 5 years are obese in 2020.² World Obesity Federation estimates suggest that about 250 million children ageing between 5 and 19 years old will be obese by 2030. Reports also predict that the population of obese children (5 and 19 years) are expected to rise to 62 million in China, 27 million in India, 17 million in the USA, 1.8 million in Malaysia, 1.3 million in the UK and 0.08 million in Singapore by 2030.³ The complete data on ‘Childhood Obesity’ is available in ‘Atlas of Childhood Obesity [2019 edition]’ published by the World Obesity Federation, London. Again, the COVID-19 pandemic had significantly affected children’s daily lives, reduced their physical activity, increased their stress levels and had contributed to such a high incidence of childhood obesity.^{4,5} Woolford *et al.*, assessed the changes in body-mass index (increased) among children during COVID-19 restrictions and reported an increase in pediatric obesity during the aforesaid period.⁶

Childhood obesity is a complex health issue. Energy imbalance between calories consumed and calories expended is the fundamental cause of overweight and obesity.⁷ The causes of childhood obesity include genetics, changes in basal metabolic rate, parental perception and oxidative stress. Unhealthy eating habits, fast food consumption, higher intake of snacks, sugar-sweetened beverages, fast food consumption, eating while watching television, skipping breakfast and reduced numbers of family mealtimes during childhood are associated with increased rates of childhood obesity.⁸ Lack of physical activity and sedentary behaviour could be considered as the triggering factors for childhood obesity.^{9,10}

Pre-COVID-19 studies reported that children have a tendency to become obese in summer vacations due to a lack of physical activity.¹¹ The same trend was observed in the COVID-19 pandemic period where children are exposed to lockdown, movement restrictions and implementation of online education. These factors contributed to further reduction in physical activity, psychomotor skills and verbal and nonverbal communication skills. Brown *et al.*,

highlighted the changes that occurred in health, learning aspects of children, and the parents also experienced changes in mood and general stress levels due to COVID-19 lockdown restrictions.¹² Various environmental stressors during the COVID-19 period lead to an increase in oxidative stress levels and these risk factors contributed to the development of depressive symptoms.¹³ The lockdown period had led to a significant change in behavioural attitude, inadequate physical activity, consumption of high-calorie food and beverages contributed to the weight gain in children.¹¹

Obesity in childhood could lead to non-communicable diseases such as cardiovascular disease, musculoskeletal disorders, breathing problems, cancers, fatty liver disease, gallstones, and gastro-oesophageal reflux. Childhood obesity could lead to psychological problems such as anxiety and depression; social problems such as bullying and stigma; result in low self-esteem and lower the self-reported quality of life.¹⁴

Childhood obesity is preventable with coordinated efforts from the parents, teachers, family members, government organizations by providing appropriate awareness, social education and implementing sustainable proactive measures to provide a better future for the next generation.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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DOI : 10.5530/fra.2021.2.6

Article Available online

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Cite this article: Parasuraman S, Krishnamoorthy V. Childhood Obesity: Still a Major Concern. *Free Radicals and Antioxidants*. 2021;11(2):27-8.

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