Residência RP Pediátrica
Publicação Oficial da Sociedade Brasileira de Pediatria

EDITORIAL

Child nutrition, physical activity and the corona virus pandemic

Joel Alves Lamounier[1]

The coronavirus (COVID-19) pandemic in recent years has had an impact on various sectors of life. Strong impact on the socioeconomic conditions of countries and on people's health. Children can be considered the most vulnerable and have suffered the consequences of the pandemic. In addition to physical illness, emotional state involvement can be observed. Measures to contain the spread of the virus led to the closure of schools and the social isolation of children. The consequences were the change in eating habits, with increased weight gain and increased sedentary lifestyle. Such conditions favor childhood obesity and an increased risk of cardiovascular disease. The damage can be considered immense and the expansion of vaccination in this age group is a perspective that can minimize the effects of the pandemic by returning to the child's usual activities before the pandemic.

Coronaviruses are a large family of viruses that can infect animals and humans. They were first identified in the mid-1960s and seven different types of human coronavirus are known. Of these, four cause mild to moderate respiratory infections and two cause severe respiratory infections, which are severe acute respiratory syndrome coronavirus (SARS-CoV) and middle east respiratory syndrome coronavirus (MERS-CoV). In 2019, a seventh type was identified, the new SARS-CoV-2, which gained importance due to its pathogenicity in humans. The WHO's "International Committee on Taxonomy of Viruses" identified it as "severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)". This name was changed to "COVID-19" due to its genetic similarities to the SARS coronavirus responsible for the outbreak in 2003. Subsequently, in 2020, the World Health Organization (WHO) declared the outbreak of the disease caused by the disease a public health emergency and new coronavirus a global epidemic.

Obesity, considered an important health problem in several countries, consists of the exacerbated accumulation of body fat resulting from a positive energy balance that causes damage to the health of individuals. As a consequence, it can compromise physical and emotional health. In addition, it is considered a risk factor for non-communicable diseases and the early onset of cardiovascular disease. As for the psychic and cognitive aspects, obesity can predispose to anxiety, depression, and sleep disorders. In this scenario, the COVID-19 pandemic has become a major challenge for the world, with profound changes in the lifestyles of different populations. Suddenly, there was a rapid break in paradigms that resulted in broad repercussions in the various spheres of social interaction. Social isolation was a strategy along with other measures imposed to reduce viral spread.

[1] Titular Professor of Pediatrics UFSJ/UFMG

Correspondence to:
Joel Alves Lamounier.
Federal University of São João Del Rei. Rua Sebastião Gonçalves Coelho, nº 400, Room 205.2 - Bloco D, Bairro Chanadour
Divinópolis/MG, Brazil. CEP: 35501-296. E-mail: lamounierjoel@gmail.com

Residência Pediátrica; 2022: Ahead of Print. DOI: 10.25060/residpediatr-2021.v11n3-02

This work is licensed under a Creative Commons Attribution 4.0 International License.

Although they have positive effects, isolation measures can have an undesirable impact, especially on children and adolescents, due to the social distance imposed as a strategy to face the spread of COVID-19. With restricted mobility, interruption of classes and group activities, children and adolescents were more exposed to screens and changes in food. The restriction of mobility limits the frequency of purchases of foodstuffs, as a consequence of greater consumption of processed and canned foods, which are easier to acquire and store, as well as home delivery of food has been incorporated by the majority of the population. The Brazilian Society of Pediatrics (2020)8 emphasizes that strategies to contain the spread of COVID-19 have a direct impact on infant nutrition, as the restriction of mobility limits the frequency of purchases of foodstuffs. The consequence is the greater consumption of processed and canned foods that are easier to acquire and store and have a longer shelf life. Changes in eating habits have contributed to the increase or worsening of overweight and obesity in children and adolescents.

In health, the possible impacts of social distancing imposed by the COVID-19 pandemic on childhood obesity should be considered. COVID-19 continues to ravage the world, crossing borders and reaching people of different classes and ages. Contact, touch and coexistence are restricted due to high viral transmissibility. Activities that involve agglomeration of people, such as paralyzed face-to-face classes, required everyone involved to create strategies to reinvent education. The interruption of face-to-face classes, in addition to all the possible impacts on the training of students, also creates a gap in terms of food, since school lunches are a safe and balanced source of food, being, in some cases, the only meal with these characteristics accessible to many students. The livelihood of many families was compromised and the availability of nutritious food became even more scarce for children and adolescents in situations of socioeconomic vulnerability.

Social distancing has also had repercussions on family relationships. Children and adolescents who spent a large part of the day in day care centers and schools are restricted to full-time at home. In this scenario, the caregiver's stress and overload can cause an exacerbation of aggression and violence. The increase in exposure to psychological violence, the scenario of uncertainties, the removal from routine and from close people generate important reflections on the mental health of children and adolescents. Obesity is strongly associated with the occurrence of anxiety and depression. Thus, it is necessary to closely monitor possible behavioral changes in obese children and adolescents, mainly due to the association of factors inherent to social distancing that can cause mood swings.

Another factor that directly impacts the obesity epidemic is the reduction in the practice of physical activity, strongly influenced by the interruption of face-to-face classes, since the school is an environment conducive to active group interactions, sports and recreational activities. Even aggravating this situation, many children do not have an adequate place for playing or carrying out activities that allow them to reduce their sedentary lifestyle. Gyms with suspended activities and also the absence of school support were factors that contributed to the maintenance of high levels of inactivity. Therefore, to reduce the development or worsening of obesity and avoid the resulting complications, the family must provide a healthy and safe environment, providing emotional support, prioritizing nutritious foods, encouraging physical activities and limiting screen time. These measures are necessary both to prevent excess weight and its long-term repercussions, and to overcome the increased risk associated with obesity if these children and adolescents are exposed to COVID-19 infection.

In conclusion, pediatricians, as well as other health professionals, should proceed with the nutritional assessment of children and adolescents. This recommendation also applies to the care of children suspected or diagnosed with COVID-19. It is important to identify overweight and obesity to promote guidance and care in periods of isolation. Maintain good health and nutrition, in addition to immunizations and attention to psychosocial problems. Consider obesity-associated comorbidities and ensure treatment is not interrupted. Assess the need for nutritional supplements on a case-by-case basis. Fortunately, advances in vaccination against COVID-19 in adolescents and children can be an important factor in minimizing the different impacts of the disease in this population.

REFERENCES

1. Bolsoni-Lopes A, Furieri LB, Alonso-Vale MIC. Obesity and covid-19: a reflection on the relationship between pandemics. Rev Gaúcha Enferm. 2021;42(esp):e20200216.
2. Costa LR, Oliveira ME, Frauches JP, Campos NB, Oliveira LS, Gentilin KF, et al. Childhood obesity and quarantine: Obese children are at greater risk for COVID-19? Pediatr Resid. 2020;10(2):143-7.
3. Faustino AJP, Castejon LV. Feeding children during the pandemic and the difficulties of those responsible. Res Soc Dev. 2021;10(7):e34810716811.
4. COVID-19 Mental Disorders Collaborators. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. Lancet. 2021 Nov;398(10312):1700-12. DOI: https://doi.org/10.1016/S0140-6736(21)02143-7
5. Moreira GS, Reis LBSM, Freire PB. Obesity and worsening of COVID-19 – review article. Health Resid J. 2020;1(6):63-70.
6. Almeida CAN, Del Ciampo LA, Ferraz IS, Del Ciampo IRL, Contini AA, Ued FV. COVID-19 and obesity in childhood and adolescence: a clinical review. J Pediatr (Rio J). 2020 Sep/Oct;96(5):546-58.
7. Brazilian Society of Pediatrics (SBP). Scientific Department of Endocrinology. Alert Note. Obesity in children and adolescents and COVID-19. Rio de Janeiro: SBP; 2020.
8. Brazilian Society of Pediatrics (SBP). Scientific Department of Endocrinology. Alert Note. Vitamin D and COVID-19. Rio de Janeiro: SBP; 2020.
9. Sousa GC, Lopes CSD, Miranda MC, Silva VAA, Guimarães PR. The COVID-19 pandemic and its repercussions on the obesity epidemic in children and adolescents. Rev Eletrônica Acervo Saúde. 2020;12(12):e4743. DOI: https://doi.org/10.25248/reas.e4743.2020
10. Yu W, Rohli KE, Yang S, Jia P. Impact of obesity on COVID-19 patients. J Diabetes Complications. 2021 Mar;35(3):1078172.