

Physical activity and sedentary behavior in Covid-19 pandemic scenario

Daniel Leite Portella¹

¹ Faculdade de Educação Física, Programa de Mestrado em Inovação no Ensino Superior em Saúde, Universidade Municipal de São Caetano do Sul, Brasil E-mail: daniel.portella@online.uscs.edu.br

The new SARS-CoV-2 virus, which transmits the coronavirus (COVID-19), has spread around the world and has changed various lifestyles in the world's population. According to the director general of the World Health Organization (WHO), Tedros Adhanom Ghebreyesus, this scenario was characterized as a syndemic.¹ To contain the spread of the new virus, isolation and social distancing - quarantine - was the main decision to reduce the spread of the virus and try to control the number of people susceptible to developing the symptoms of the disease.² With this scenario, people who have a chronic disease, became part of the risk group, being more susceptible to contracting the disease, worsening their condition clinical condition and have complications in the treatment³.

In theory, the most affected in this syndemic scenario were people with Chronic Non-Communicable Diseases (NCDs), since, in addition to being considered a risk group, they also had difficulties with physical activity, one of the control strategies for CNCs. With the temporary closure of face-to-face physical activities, it is believed that the population's level of physical activity has decreased and, therefore, the risk of hypokinetic diseases and obesity-associated comorbidities has increased.⁴ The literature shows an association with low levels of physical activity. of physical activity and sedentary behavior with increased risk of mortality⁴

Despite the clear decrease in the level of physical activity during isolation, several people showed a counterpoint by remaining active, to a lesser extent, or even starting to practice physical activity during isolation. People who already practiced physical activity prior to isolation managed to continue with the practice, although not at the same intensity and volume, observing the positive effects of maintaining this habit.⁵

In addition to observing the practice of physical activity, it is necessary to pay attention to sedentary behavior. This has been shown to have as much or more impact on the health of individuals associated with NCDs⁶. Sedentary behavior defined by time spent during the day with muscle actions that do not generate energy expenditure above resting metabolism has increased prevalence in adults, children and adolescents ^{6,7}.

Katzmarzyk et al point out that, regardless of socioeconomic level, in comparison between different countries, both the level of physical activity and sedentary behavior are closely linked to NCDs in adults. Da Silva et al highlights the increase in sedentary behavior in adolescents compared to periods from 2015 to 2017, still pre-pandemic. Such behavior may have worsened even more with the need for social isolation.

Thus, among several points of attention that we must have in this moment of partial and advanced resumption of face-to-face environments and relationships, it is worth mentioning both the increase in the practice of physical activity and the reduction of sedentary behavior in the world population. Encouraging and proposing interventions in this sense can help the population to regain previous levels of health, mitigating various post-pandemic factors that may arise related to health.

Bibliographic References

1. BBC News Brasil. Coronavírus: OMS declara pandemia. [homepage da internet]. 2020 [postado em 2020 Mar 11; citado em 2020 Ago 27]. Disponível em: <https://www.bbc.com/portuguese/geral-51842518>.
2. Tang F, Liang J, Zhang H, Kelifa MM, He Q, Wang P. COVID-19 related depression and anxiety among quarantined respondents. *Psychology & Health*. 2020. Disponível em: <https://doi.org/10.1080/08870446.2020.1782410>.
3. Doro M, Ferreira Marques Y, Cantarinho de Lima HF, De Oliveira Caccalano W, De Oliveira Nessi AA, Chagas Caperuto É, De Oliveira Alonso D, Leite Portella D. Physical activity and medication in Brazilians suffering with non-communicable diseases in quarantine by COVID-19. *Eur J Transl Myol*. 2021 Apr 29;31(2):9772. doi: 10.4081/ejtm.2021.9772. PMID: 33942601; PMCID: PMC8274225.
4. Hudson GM, Sprow K. Promoting Physical Activity During the COVID-19 Pandemic: Implications for Obesity and Chronic Disease Management. *Journal of Physical Activity and Health*. 2020; 17: 685-687. Disponível em: <https://doi.org/10.1123/jpah.2020-0318>.
5. Abreu JM, Souza RA, Viana-Meireles LG, Landeira-Fernandez J, Figueira A. Effects of physical activity and exercise on well-being in the context of the Covid-19 pandemic. Disponível em: <https://doi.org/10.1101/2020.06.08.20125575>.
6. Katzmarzyk PT, Friedenreich C, Shiroma EJ, Lee IM. Physical inactivity and non-communicable disease burden in low-income, middle-income and high-income countries. *Br J Sports Med*. 2022 Jan;56(2):101-106. doi: 10.1136/bjsports-2020-103640. Epub 2021 Mar 29. PMID: 33782046; PMCID: PMC8478970.
7. Silva MPD, Guimarães RF, Bacil EDA, Piola TS, Fantinelli ER, Fontana FE, Campos W. Time spent in different sedentary activity domains across adolescence: a follow-up study. *J Pediatr (Rio J)*. 2022 Jan-Feb;98(1):60-68. doi: 10.1016/j.jped.2021.03.007. Epub 2021 Jun 17. PMID: 34147484.

How to cite this article:

Portella DL. Physical activity and sedentary behavior in Covid-19 pandemic scenario. *Rev. Aten. Saúde*. 2021; 19(70): 5-6.