

Effects of COVID-19 pandemic on physical activity: Results of the Russian online survey on spring 2020

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Introduction: The Russian Federation reported one of the largest number of COVID-19 infections. In spring 2020 social distancing, travel bans, the cancellation of sporting and other mass participation events, and changes to work practices have dramatically affected daily life throughout the country. Major restrictions were introduced on the 28th March 2020 with the level of restrictions varied depending on the epidemiology of the virus from region to region. Cities with a large number of cases had the most strict restrictions such as limitations on any outdoor activities. In cities with a smaller number of cases limitations were less strict, especially with outdoor activities. Indoor sport activities were limited across the country and outdoor sports were restricted – depending on the situation in the region.

The aim of this study is to estimate the impact of COVID-19 on the levels of physical activity among adults in Russia.

Methods: Cross-sectional data were collected during the period of tightest restrictions between 26 April 2020 and 6 June 2020. The link on the on-line survey was distributed through the regional centers of public health. Eligible participants included all Russian adults aged 18 years and over. Participants reported frequency and duration of walking, moderate- and vigorous-intensity physical activity, and muscle strengthening activities before COVID-19 and during the past seven days.

Results: A convenience sample of 2432 adults from 62 regions of Russia completed a 15-min self-report questionnaire. Participants were primarily female (83%). Compared with before COVID-19, physical activity was adversely affected during COVID-19. The average time spent in MPA and VPA each declined by around 12 minutes per day (42.43 ± 37.57 to 30.44 ± 35.35 and 37.79 ± 37.80 to 26.56 ± 34.69 , respectively [all $P < 0.001$]). The number of minutes per day spent walking decreased by around 20 minutes from 60.5 ± 38.66 to 40.83 ± 38.6 ($P < 0.001$). The proportion of participants who met the WHO Guidelines for physical activity declined from 68% to 49% ($P < 0.001$). The proportion who participated in muscle strengthening activities for 2 or more days per week declined from 53% to 45% ($P < 0.001$). Compared with those who did not use online PA resources, those who did were 1.4 (95%CI 1.3, 1.5) and 1.9 (95%CI 1.8, 2.1) times more likely to meet the recommendations for PA and for muscle-strengthening activities, respectively.

Conclusion: Effective health promotion strategies directed at adopting or maintain positive health-related behaviors such as targeted social media messaging and balanced media reporting, should be used to increase the physical activity during these unprecedented times.