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OPINION
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Recommendations for Physical Inactivity and Sedentary Behavior During the Coronavirus Disease (COVID-19) Pandemic

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Since the escalation of coronavirus disease 2019 (COVID-19) pandemic, over a billion people across the world have faced restrictions due to varying degrees of confinement, and in the absence of a vaccine against SARS-CoV-2, massive public health interventions have been implemented to contain the outbreak. The lockdown set up in many countries to combat the COVID-19 epidemic entails unprecedented disruption of lives and work, determining specific risks related to mental and physical health in the general population, especially among those who stopped working during the current outbreak (1). The implementation of confinement policies to contain COVID-19 could be a catalyst for concealed mental and physical health conditions, further enhancing the effects of psychosocial risk factors, including stress, social isolation, and negative emotions that may act as barriers against behavioral changes toward an active lifestyle and negatively impact on global health, well-being and quality of life, ultimately resulting in result in a range of chronic health conditions (2, 3).

HAZARDS RELATED TO PHYSICAL INACTIVITY AND SEDENTARY BEHAVIOR

The World Health Organization (WHO) classified physical inactivity as the fourth leading risk factor accounting for 6% of global mortality, following hypertension (13%), smoking (9%) and diabetes (6%). The relationship between physical inactivity and obesity trends was quite evident since 1953 when the London Busmen Study showed that bus drivers who mainly sat during work presented with larger waist circumferences, higher levels of adiposity and increased risk of coronary events than bus conductors, who walked the aisles and climbed the stairs of double-decker buses (4).

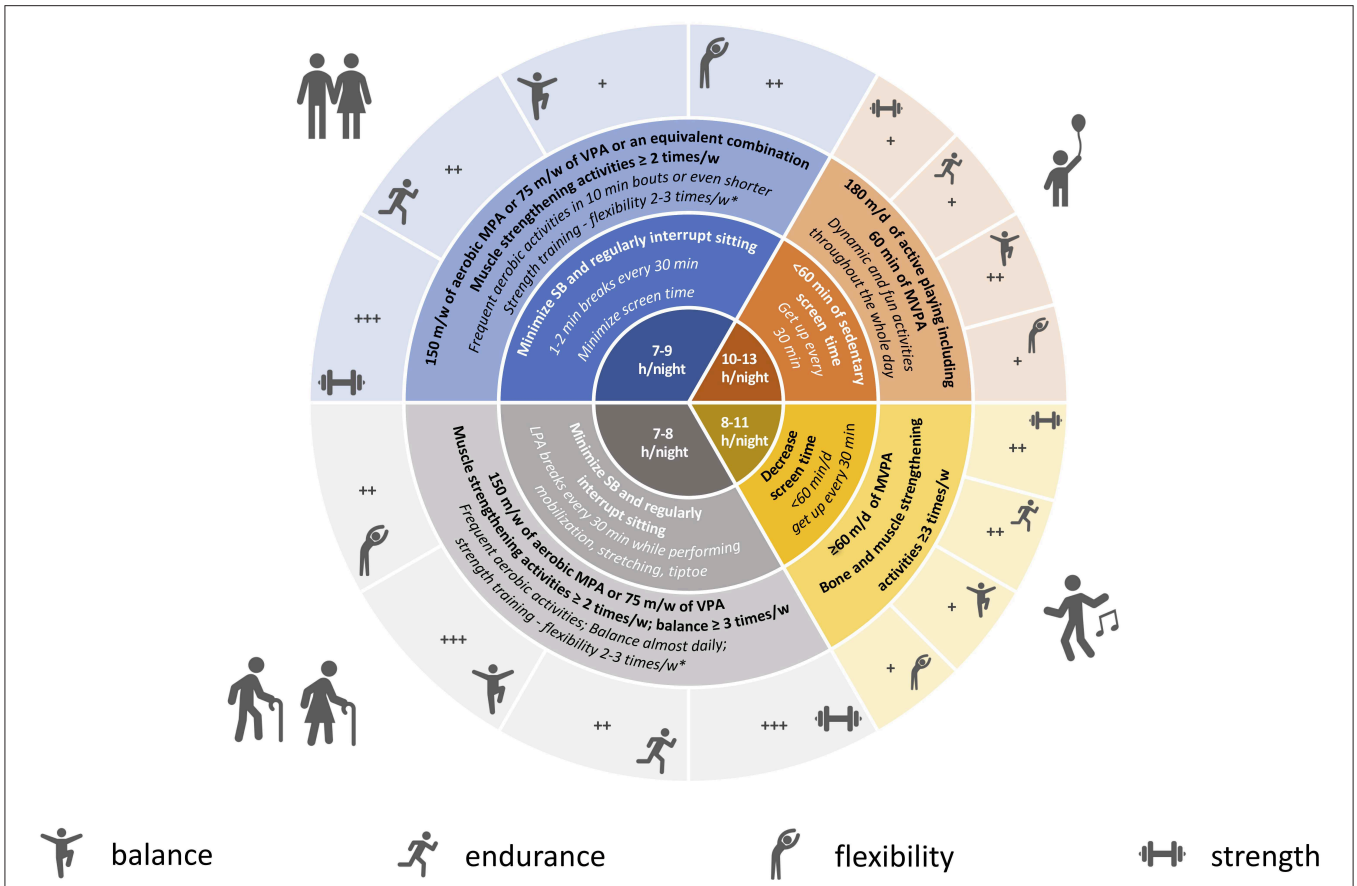

FIGURE 1 | Physical activity, sedentary behavior, sleep recommendations, and tips for COVID-19 quarantine period. Blue, adults; gray, older people; orange, preschooler; yellow, school-aged children and adolescents; Bold, international guidelines and recommendations; Italic, tips for quarantine period; PA, physical activity; SB, sedentary behavior; LPA, light-intensity physical activity; MPA, moderate-intensity physical activity; VPA, vigorous-intensity physical activity; MVPA, moderate to vigorous-intensity physical activity. In the central portion of the figure we reported recommended hours of sleep by age group. *Perform strengthening activities in non-consecutive days. +, ++, + + +: relative importance of PA/exercise type for each age category. Dumbbell: muscle and bone strengthening activities; running: aerobic activities; monopodalic standing: balance exercise; bending: flexibility.

disruption physical inactivity and sedentary behavior as a critical behavioral strategy for the prevention of global health and consequences of psychosocial stress during the current lockdown.

AUTHOR CONTRIBUTIONS

FR and PI drafted the manuscript. All co-authors provided critical revision for important intellectual content.

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