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# Physical activity and sedentary behavior during pandemic times

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## Description

Scientific investigations have tried to broaden the understanding of the effects of the combination between physical activity and sedentary behavior on individuals' health [1]. Considering the various possibilities of interaction between these two constructs, combined assessment seems to provide more reasonable results and might assist in better defining public health policies [2].

In a previous study, it was verified the transition and factors related to physical activity combined with sedentary behavior among 374 elderly followed up for 24 months The evaluation of the physical activity level and sedentary behavior was based on the cutoff point of 150 minutes per week and in the 75 percentile value, respectively. Unsatisfactory levels of physical activity and sedentary behavior were related to the eldest group -80 years or over (p=0.031), the absence of professional activity (p<0.001), the dependence in instrumental activities of daily living (p=0.013), and a worse physical performance (p<0.001). At that time, only 16.3% improved their physical activity and sedentary behavior condition [3].

Such hypotheses of a harmful combination between low physical activity and high sedentary behavior are augmented and become even more concerning if we take into account the new reality imposed by the Covid-19 pandemic [4].

Social isolation, in itself, is already related to low levels of physical activity and increased sedentary time, especially among the elderly, even in contexts prior to the pandemic [5].

It seems unlikely that someone who already had a sedentary pattern before the pandemic, will acquire opposite habits at this time [6]. Conversely, it is possible that the lockdown period and the decrease in opportunities for engagement in physically active routines, which are essential strategies to contain the spread of coronavirus, is negatively affecting these behavioral patterns even more. Still, the additional deleterious effects of this 'new normal' will only be known ahead [4].

Research conducted with 43,995 Brazilian adults evaluated the active participants that become inactive during the pandemic. Poor mental health indicators were associated with increases in physical inactivity and TV-viewing time. In addition, physically inactive persons were more likely to reveal loneliness and sadness [7].

A longitudinal study showed that the all-cause and cardiovascular disease mortality related to sitting time were lessened or yet eliminated among adults who engaged in moderate-to-vigorous physical activity programs [8].

However, even slight interruptions of sitting time, adherence in light-intensity activities or the adoption of a home-based program can help diminish the harmful effects on health among the least active persons [9].

In this sense, taking action now and change sedentary patterns are mandatory strategies if we target post pandemic better health outcomes.

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