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Letter to Editors

Falls in older adults: The new pandemic in the post COVID-19 era?



Dear editor

The COVID-19 has led that most countries impose lockdown or quarantine and several mobility restrictions that affect the physical activity levels of older adults, increasing sedentary behavior and physical inactivity [1]. In addition, even if the quarantine and restrictions are lifted, the access to physical exercise in older adults may be limited in the absence of a vaccine protecting this population due to fear of contagion. Much of them decline participation in physical exercise because they want to thereby avoiding contracting the COVID-19 (fear to close contact with other participants or to touch the material or equipment) [2]. As consequence, physical health in older people is negatively affected during the confinement caused by this pandemic [3].

Falls are common and may lead to deleterious effects in health among older adults [4]. Physical inactivity may increase and exacerbating the risk of disabilities and it is one of the risk factors leading to falls [5]. On the contrary, physical activity exercises have the potential to significantly reduce fall rate and risk in healthy older adults [6]. The evolution of this virus is unknown and the end of this pandemic can be extended during several years [7], and therefore, lockdowns, restrictions, and social distancing may stay for a long time while an effective treatment or vaccine arrives. This may affect the physical activity levels and as a result, it may lead to a higher risk of falls and incidence of disability in the near future in older people [1]. For this reason, we hypothesize that in the coming months and years there will be a substantial increase in the number of falls in older adults as consequences of less physical activity during the COVID-19 pandemic. This fact will lead to an increase in deaths and disabilities among this population. Likewise, we hypothesize that many of these deaths and disabilities can be reduced or avoided by physical exercise, which may save many lives. In this way, home-based exercises are a very interesting alternative for older adults who are isolated or for those who are afraid to go outside the home, and they could offer several health benefits in this popula-

Declaration of Competing Interest

The authors declare that they have no known competing financial

interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [1] Yamada M, Kimura Y, Ishiyama D, Otobe Y, Suzuki M, Koyama S, et al. Effect of the COVID-19 epidemic on physical activity in community-dwelling older adults in japan: a cross-sectional online survey. J Nutr Health Aging 2020:1–3. https://doi. org/10.1007/s12603-020-1424-2.
- [2] Goethals L, Barth N, Guyot J, Hupin D, Celarier T, Bongue B. Impact of home quarantine on physical activity among older adults living at home during the COVID-19 pandemic: qualitative interview study. JMIR Aging 2020;3:e19007. https://doi. org/10.2196/19007.
- [3] Sepulveda-Loyola W, Rodriguez-Sanchex I, Perez-Rodriguez P, Ganz F, Torralba R, Oliviera DV, et al. Impact of social isolation due to COVID-19 on health in older people: Mental and physical effects and recommendations. J Nutr Heal Aging 2020:1–10. https://doi.org/10.1007/s12603-020-1469-2.
- [4] World Health Organization. WHO global report on falls prevention in older age 2008.
- [5] Klenk J, Kerse N, Rapp K, Nikolaus T, Becker C, Rothenbacher D, et al. Physical activity and different concepts of fall risk estimation in older people–results of the ActiFE-Ulm study. e0129098–e0129098 PLoS One 2015;10. https://doi.org/10. 1371/journal.pone.0129098.
- [6] Hamed A, Bohm S, Mersmann F, Arampatzis A. Follow-up efficacy of physical exercise interventions on fall incidence and fall risk in healthy older adults: a systematic review and meta-analysis. Sports Med Open 2018;4(1). https://doi.org/10.1186/s40798-018-0170-z.
- [7] Scudellari M. How the pandemic might play out in 2021 and beyond. Nature 2020;584(7819):22–5. https://doi.org/10.1038/d41586-020-02278-5.

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