



Physical activity, health and well-being in an imposed social distanced world

A. G. Papaioannou, R. J. Schinke, Y. K. Chang, Y. H. Kim & J. L. Duda

To cite this article: A. G. Papaioannou, R. J. Schinke, Y. K. Chang, Y. H. Kim & J. L. Duda (2020): Physical activity, health and well-being in an imposed social distanced world, International Journal of Sport and Exercise Psychology, DOI: [10.1080/1612197X.2020.1773195](https://doi.org/10.1080/1612197X.2020.1773195)

To link to this article: <https://doi.org/10.1080/1612197X.2020.1773195>



Published online: 27 May 2020.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)



Physical activity, health and well-being in an imposed social distanced world*

January 2020 was the first time that most of the world heard about the new Coronavirus disease (COVID-19) but its consequences were still unknown. A few weeks later, the pandemic, the fear, the lockdowns and disruption in most human activities, and the resulting financial crisis were impacting our daily lives. Rules on social distancing and corresponding concerns about human Well-Being (WB) have become the headlines across the world. Most experts believe that lockdowns during this pandemic have increased sedentariness and Physical Inactivity (PI) which, according to World Health Organization, causes over 3,200,000 deaths each year globally. This mortality figures is about 10 times higher than the deaths due to COVID-19 within the first 4 months since its known inception. PI has been called a silent pandemic (Kohl 3rd, 2012) leading to chronic diseases, but individuals with chronic diseases are exactly those with much higher probabilities to be hospitalised and die from COVID-19. This is a phenomenon which is described as a vicious circle between the two pandemics (Hall et al., 2020).

COVID-19 has also dramatically boosted the “mental health pandemic” (Choi et al., 2020) with mental health experts calling for an urgent global response (Holmes et al., 2020). An editorial in the *Lancet Psychiatry* (2020) noted that people living with Mental Illness (MI) are more vulnerable to COVID-19, underlining the interconnections between the COVID-19 and MI pandemics. These two vicious circles plus a third one connecting PI and MI (Stults-Kolehmainen, & Sinha, 2014; US Department of Health and Human Services, 2018) have trapped the world into a deadly three-pronged vicious circle of three pandemics, COVID-19, PI and MI. The resulting financial crisis that will augment the pandemic effects on PI, MI and susceptibility to COVID-19 for the most disadvantaged populations turns the bleak picture of the immediate future even starker.

Still, crises can create opportunities for progress. In a number of regions around the world, the COVID-19 pandemic might end soon (or at least the first wave). At the time of the writing of this Editorial, we have easing of lockdowns across most countries but uncertainty and unpredictability remain. Three main scenarios have been drawn for the immediate future; one optimistic (vaccine or at least effective treatment within the next 6–9 months), a second being moderate in promise (vaccine/treatment within the next 10–18 months), and a third, pessimistic (new waves of the disease will be evident and the vaccine will be available after 18 months or never). There are hopes for the optimistic scenario, but history shows that the pessimistic scenario is also possible.

Whatever scenario prevails, social distancing rules will remain for months or even years. Social distancing protects us from the virus, but its impact on sport participation and psychological WB is deleterious. The pandemic effects on Olympic and professional athletes have been described in previous Editorials of this journal (Schinke et al., 2020). Herein, we will focus on

*When we conceived the idea for this Editorial, we also invited our Section Editor Nikos Chatzisarantis from Curtin University, Australia, to join us in its writing. For several days we were waiting for his response until the day that we heard the terrible news of his death. We dedicate this Editorial to the memory of Nikos and to the memory of all people who have lost their lives during this terrible pandemic.

Physical Activity (PA) and WB. We invite readers to consider the challenges for the following populations and to consider new ways of supporting these groups. It is also interesting and important to consider new lines of research investigating the possible effects of the pandemic on PA and WB of these populations.

Youth and sport coaches

A recent review of 298 population-based surveys, conducted between 2001 and 2016 and involving 1.6 million youth (aged 11–17), found that 81% of adolescents worldwide were insufficiently Physically Active (PA) (Guthold et al., 2020). The lockdowns due to the current COVID-19 pandemic most likely have increased youth online gaming even further (Wilde, 2020), sedentariness and PI, particularly in countries prohibiting PA outside home during lockdowns and for youth living in small apartments in densely built urban areas. Screen time is positively related to snacking and youth obesity (Marsh et al., 2013), and the latter predicts obesity in later adulthood (Rundle et al., 2020).

Social distancing rules might have a longer impact on youth PI and WB. In countries that opened schools after lockdowns, students are requested to avoid sports involving contact, sharing sport equipment and shaking hands with friends (Chen et al., 2020). Ball games are banned and Physical Education (PE) teachers are encouraged to use drills and exercises that maintain social distancing. Novelties like one-meter hats in Chinese kids and the use of apps in mobile phones have been proposed to maintain safe distance. Yet it is unknown whether youth will adapt to the new social distancing state of affairs when not strictly regulated. Early findings imply that social responsibility along with governmental and parental rules might contribute to sustain social distancing in adolescence (Oosterhoff et al., 2020). Research might reveal variations across cultures and further evidence of motivational differences in adoption of social distancing but also effects on children's PA and WB.

Ball games are the most popular sports across most countries, providing opportunities for PA to hundreds of millions of youth. In countries prohibiting ball games, young athletes should be assisted to accept the reality and replace their sports with enjoyable physical activities that help them maintain their fitness and health until the end of social distancing order. This might not be so easy for all kids though. Children's loss of social interaction might compromise their peer relationships. Early research findings indicate that the pandemic increases youth's anxiety, depression (Huang, & Zhao, 2020) and abuse (Taub, 2020), which might increase their PI even further. Under the pessimistic or even moderate scenario, maybe millions of kids might never return to their team after the end of social distancing rules.

Sport and exercise psychologists have a critical role to play in working with PE teachers, coaches and parents to provide (online) social-psychological support to students and young athletes. These significant others can help young athletes develop self-regulation skills and routines to remain PA but also prosocial motives to sustain social distancing. Support from parents, from peers, best not to be pressuring to sustain social distancing (Oosterhoff et al., 2020) and team spirit are important to athletes' mental health and return to the teams. Team spirit and peer support can be maintained through online group meetings during lockdowns or during physical meetings and sports training while keeping social distancing where this is permitted. Sport psychologists can help athletes to develop skills to cope with anxiety and might identify athletes who have been negatively affected by the pandemic or experiencing abuse where they are locked down, and thus, need referral to mental health experts. The crisis can be seen as an opportunity to help athletes and their parents to communicate with each other and improve family relationships, which is critical for each family member's mental health, PA and health.

Coaches in youth sport will also need support, including those who rely on income from sport as well as those who so enjoy the coaching role and engaging with their young athletes. Coaches need to retain optimism for the future in their youth teams and to keep regular communication with their athletes, supporting them and maintaining team spirit. Some coaches might need support to plan realistically for the immediate future, search for new job opportunities in the emerging socio-economic environment. They may also need to strengthen their links with their relatives and friends. Seeking support and providing support to their most important others are critical for coaches' WB.

Adults, elderly, patients

Health and fitness gyms have remained closed during lockdowns but the request for health-related physical activity and the fitness industry will persuade decision makers to reopen them. Still, the imposed social distancing rules and heightened concerns about being exposed to the virus might reduce the number of exercise participants in gyms. Many individuals with underlying health problems, like those living with cardiovascular and respiratory diseases, and obesity and cancer survivors, might continue to avoid gyms and crowded physical activity settings because their increased vulnerability to COVID-19 complications (CDC, 2020) heightens their concerns about safety issues. However, these are exactly the people who mostly need physical activity to cope with their underlying health problems. For those living in densely built urban areas, their options for PA reduce dramatically because movement outside their homes increases risks to get the disease. PA experts might advise governments and gym owners to offer particular options for PA to people with chronic diseases. Exercise psychologists can provide consultancy to these people with regard to how to sustain their PA and how to find safe options for PA during the pandemic.

Elderly individuals face similar challenges. Government directions to stay in the home (CDC, 2020) might cause sudden cessation of physical activity, which, within a two weeks might cause seniors' muscle atrophy, decreased aerobic capacity, increased blood pressure, decreased venous return and reduced coronary perfusion, accelerating the risk of cardiovascular events and mortality (Lippi et al., 2020). Across several countries, seniors have experienced social isolation and loneliness well before the pandemic, causing major psychological, cognitive, and physical morbidities and low quality of life in older adults (National Academies of Sciences, Engineering, and Medicine, 2020). On the eve of the pandemic in the Western hemisphere, the chair of this report said "addressing social isolation and loneliness is often the entry point for meeting seniors' other social needs — like food, housing, and transportation". Within the next weeks COVID-19 has killed thousands of isolated elderly in care homes across several Western countries (Konolly, 2020). The World Health Organization (2020) underlined that during the pandemic older people need even further support, while even minor things like a telephone call might make a difference to their WB and sense of inclusion. Exercise psychology can be a key profession to provide assistance to older people to sustain PA inside their flats or residence houses, reduce their loneliness and isolation and improve their WB. Policy makers should consider exercise psychologists as one of the best trained professions for this service to seniors.

Exercise psychologists might also provide important services to people who survived from the coronavirus. After weeks of fighting for survival, these people are physically and emotionally weak, they need psychological support and be encouraged to progressively become PA again.

The future

When the pandemic ends, researchers across different countries need to compare differences between pre-pandemic and post-pandemic PA and WB and their determinants. This is because different policies, media coverage and other factors might have different effects on infection and death rates, infection risk, social distancing regulations, etc., and correspondingly on PA and WB. This research needs to be longitudinal and long-term. For example, three years after the earthquake and tsunami in Japan, children and adolescents who survived experienced a decrease in PA (Okazaki et al., 2015).

Lockdowns impose on everyone the need to improve their skills in online communication, teaching and service to clients. We expect many innovations in online teaching aimed at PA promotion, online coaching and online sport psychology counselling. During lockdowns several people promoted exercise at home in the internet and in TV, but across countries some of these individuals were pseudo PE teachers and exercise specialists, individuals without the proper professional background to show how to exercise. Sport and exercise professional organisations need to pay attention to this because this trend might continue. New online games aimed at PA promotion will probably emerge attracting the interest of youth, PA practitioners and researchers. The spread of online innovations will augment ethical questions such as protection of privacy, while new fields of research focused on psychology of telecommunications might emerge (Brahnam, 2017).

The pandemic unveiled several inequalities. In some cities, neighbourhoods with poor communities have seen death rates from the COVID-19 several times higher than in other areas of the same city (Caspani & Allen, 2020). During and after the end of lockdowns, online communication, options to work from home, and services available on the internet emerged as very useful to most people, but not to some who could not afford it, including many seniors and other disadvantaged individuals. Experts call for new surveillance systems and better health systems but not all countries have the resources to afford them. Lockdowns underlined the importance of PA and when lockdowns were relaxed people went out of homes to enjoy walking and PA. However, there are several cities world-wide without wide pedestrian walkways to ensure physical distancing, without parks and open spaces for exercise.

We can hope that the pandemic has made us, particularly the policy makers, reconsider policies exacerbating inequalities and suffering of the disadvantaged. Surveys in some countries show that people want quality of life indicators to take priority over economy and might demand more investment on health and quality of life from governments (Harvey, 2020). Better health systems are good for all and they are of critical significance to disadvantaged populations. Health and quality of life systems that are well-financed can employ the appropriate number of health professionals, including sport and exercise psychologists, to provide high quality services to everyone during and after the coronavirus pandemic, promoting people's health, PA and WB.

The COVID-19 pandemic might be also an opportunity to highlight the interplay of the coronavirus pandemic with the two silent pandemics of PI and MI. Sport and exercise psychologists might inform the public about the importance of PA, friendships and social support during the coronavirus pandemic, reminding how significant to our physical as well as mental health it is to walk or exercise with others. The imposed social distancing might be an opportunity to stress the importance of team spirit and prosocial behaviour to youngsters' happiness and to reminisce how wonderful is to meet and hug our old parents, relatives and friends. We might also underline how valuable is the work of our profession to promote PA, health and WB.

The pain and financial crisis resulting from the pandemic motivate some leaders to ascribe the weakness of the system to others or to different nations. This creates a polemic

atmosphere, while the United Nations (2020) calls for states to prevent xenophobia and negative stereotypes towards different cultures. Academics and practitioners in sport and exercise should react to these policies, reminding sport and PA participants, parents and fans the deadlock of stereotypes. It's important to stress what caused the invention of Olympic Games and international sport, i.e., to connect cultures and promote international friendship, peace and social WB.

References

- Brahnam, S. (2017). Comparison of in-person and screen-based analysis using communication models: A first step toward the psychoanalysis of telecommunications and its noise. *Psychoanalytic Perspectives*, 14(2), 138–158. <https://doi.org/10.1080/1551806X.2017.1304112>
- Caspani, M. & Allen, J. (2020). *Coronavirus deadliest in New York City's black and Latino neighborhoods, data shows*. The Reuters. <https://www.reuters.com/article/us-health-coronavirus-new-york-deaths/coronavirus-deadliest-in-new-york-citys-black-and-latino-neighborhoods-data-shows-idUSKBN22U32A>
- Centers for Disease Control and Prevention (CDC). (2020). *Coronavirus disease 2019 (COVID-19): Older adults*. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html>
- Chen, P., Mao, L., Nassif, G. P., Harmer, P., Ainsworth, B., & Li, F. (2020). Returning Chinese school-aged children and adolescents to physical activity in the wake of COVID-19: Actions and precautions. *Journal of Sport and Health Science*, S2095-2546(20)30049-1. Advance online publication. <https://doi.org/10.1016/j.jshs.2020.04.003>
- Choi, K. R., Heilemann, M. V., Fauer, A., & Mead, M. (2020). A second pandemic: Mental health spillover from the novel coronavirus (COVID-19). *Journal of the American Psychiatric Nurses Association*. <https://doi.org/10.1177/1078390320919803>
- Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2020). Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1.6 million participants. *The Lancet Child & Adolescent Health*, 4(1), 23–35. [https://doi.org/10.1016/S2352-4642\(19\)30323-2](https://doi.org/10.1016/S2352-4642(19)30323-2)
- Hall, G., Laddu, D. R., Phillips, S. A., Lavie, C. J., & Arena, R. (2020). A tale of two pandemics: How will COVID-19 and global trends in physical inactivity and sedentary behavior affect one another? *Progress in Cardiovascular Diseases*. <https://doi.org/10.1016/j.pcad.2020.04.005>
- Harvey, F. (2020). *Britons want quality of life indicators to take priority over economy*. <https://www.theguardian.com/society/2020/may/10/britons-want-quality-of-life-indicators-priority-over-economy-coronavirus>
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., & Ford, T. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547–560. <https://doi.org/10.1016/S2215-0366>
- Huang, Y., & Zhao, N. (2020). *Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: A web-based cross-sectional survey*. medRxiv. <https://www.medrxiv.org/content/10.1101/2020.02.19.20025395v2?rss=1>
- Kohl 3rd, H. W., Craig, C. L., Lambert, E. V., Inoue, S., Alkandari, J. R., Leetongin, G., ... Lancet Physical Activity Series Working Group (2012). The pandemic of physical inactivity: Global action for public health. *The Lancet*, 380(9838), 294–305. [https://doi.org/10.1016/S0140-6736\(12\)60898-8](https://doi.org/10.1016/S0140-6736(12)60898-8)
- Konnolly, K. (2020). *Care homes across globe in spotlight over Covid-19 death rates*. <https://www.theguardian.com/world/2020/apr/09/care-homes-across-globe-in-spotlight-over-covid-19-death-rates>
- The Lancet Psychiatry. (2020). Mental health and COVID-19: Change the conversation. *The Lancet Psychiatry*. *The Lancet Psychiatry*. <https://doi.org/10.1016/S2215-0366>
- Lippi, G., Henry, B. M., & Sanchis-Gomar, F. (2020). Physical inactivity and cardiovascular disease at the time of coronavirus disease 2019 (COVID-19). *European Journal of Preventive Cardiology*, <https://doi.org/10.1177/2047487320916823>
- Marsh, S., Mhurchu, C. N., & Maddison, R. (2013). The non-advertising effects of screen-based sedentary activities on acute eating behaviours in children, adolescents, and young adults. A systematic review. *Appetite*, 71, 259–273. <https://doi.org/10.1016/j.appet.2013.08.017>
- National Academies of Sciences, Engineering, and Medicine. (2020). *Social isolation and loneliness in older adults: Opportunities for the Health Care System*. <https://www.nap.edu/catalog/25663/social-isolation-and-loneliness-in-older-adults-opportunities-for-the>
- Okazaki, K., Suzuki, K., Sakamoto, Y., & Sasaki, K. (2015). Physical activity and sedentary behavior among children and adolescents living in an area affected by the 2011 Great East Japan earthquake and tsunami for 3 years. *Preventive Medicine Reports*, 2, 720–724. <https://doi.org/10.1016/j.pmedr.2015.08.010>

- Oosterhoff, B., Palmer, C. A., Wilson, J., & Shook, N. (2020). Adolescents' motivations to engage in social distancing during the COVID-19 pandemic: Associations with mental and social health. *Journal of Adolescent Health*. <https://doi.org/10.1016/j.jadohealth.2020.05.004>
- Rundle, A. G., Factor-Litvak, P., Suglia, S. F., Susser, E. S., Kezios, K. L., Lovasi, G. S., ... Link, B. G. (2020). Tracking of obesity in childhood into adulthood: Effects on body mass index and fat mass index at age 50. *Childhood Obesity*, 16(3), 226–233.
- Schinke, R., Papaioannou, A., Henriksen, K., Si, G., Zhang, L., & Haberl, P. (2020). Sport psychology services to high performance athletes during COVID-19. <https://doi.org/10.1089/chi.2019.0185>
- Stults-Kolehmainen, M. A., & Sinha, R. (2014). The effects of stress on physical activity and exercise. *Sports Medicine*, 44(1), 81–121. <https://doi.org/10.1007/s40279-013-0090-5>
- Taub, A. (2020). A new Covid-19 crisis: Domestic abuse rises worldwide. *New York Times*, 6.
- United Nations. (2020). *States should take action against COVID-19-related expressions of xenophobia, says UN expert*. <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25739&LangID=E>
- US Department of Health and Human Services. (2018). *2018 Physical activity guidelines advisory committee scientific report*. <https://health.gov/our-work/physical-activity/current-guidelines/scientific-report>
- Wilde, T. (2020). Online gaming surge: steam breaks concurrent user record amid social distancing mandates. *GeekWire website*. Retrieved March 23, 2020, from <https://www.geekwire.com/2020/online-gaming-surge-steam-breaks-concurrent-user-record-amid-social-distancing-mandates/2020>. Published March 16, 2020.
- World Health Organization. (2020). *Supporting older people during the COVID-19 pandemic is everyone's business*. <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/4/supporting-older-people-during-the-covid-19-pandemic-is-everyones-busines>

A. G. Papaioannou

Department of Physical Education and Sport Science, University of Thessaly, Trikala, Greece

R. J. Schinke

School of Human Kinetics, Laurentian University, Sudbury, ON, Canada
rschinke@laurentian.ca

Y. K. Chang

*Graduate Institute of Athletics and Coaching Science, National Taiwan Sport University,
Taoyuan City, Taiwan*

Y. H. Kim

*Department of Sport Science, Seoul National University of Science and Technology, Seoul, Republic
of Korea*

J. L. Duda

School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, Birmingham, UK