



Enhance Physical Activities & Stay Active for Community-Dwelling Older Adults Via Technology & Apps

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Short Communication

Physical inactivity remains a serious Public Health issue in the older population, and many older adults do not meet the World Health Organization (WHO) recommendations of 150 to 300 minutes of moderate-intensity aerobic physical activity and 75 to 150 minutes of vigorous-intensity aerobic physical exercise weekly [1]. Though older adults have more spare time, most have little desire to move around and explore new places [2]. As the aging population continues to increase globally, researchers and health professionals should develop new strategies to improve older adults' motivation and engagement in physical activity. This short communication dives into the possible challenges and consequences older adults face related to physical inactivity and how modern technology can encourage them to exercise.

Challenges of Aging in Relation to Physical Inactivity

Age-related diseases, such as hearing loss, chronic pain and osteoarthritis, diabetes, depression, and dementia [3], may surface as one ages. Impaired physical mobility of older adults adversely impacts their physical functions [4], impeding their ability and desire to exercise. Also, their fear of falling and injury may make them hesitant to exercise [5]. As a result, these barriers restrict their opportunity to socialize, leading to social isolation and loneliness, which significantly affects psychological well-being [6]. Indeed, this fear of falling and injury causes older adults to refrain from physical activities and social interactions. Then, the more inactive they are, the greater the loss in their muscle strength, leading to high risks of balance problems and falls [7]. Thus, their quality of life is negatively impacted.

The Role of Technology and Mobile Apps

In recent years, many older adults have adopted smartphones to enhance their quality of life. This technology brings convenience and resources to older adults to overcome physical limitations (i.e., instant calls, texts, online shopping, access to information and services, and more.) [8]. To address the issue of physical inactivity in older adults, we can promote the use of mobile apps to encourage them to exercise more. For instance, there are walking and running apps (e.g., the Nike Run Club App) that offer guided workouts and trails to maximize the effectiveness of these exercises. Some apps can also track workout progress, set personalized goals, and provide suggestions to users to help them achieve their targets. A positive and supportive social environment, one of the social determinants of health that influence health outcomes [9], is vital to encourage physical activity. Some apps even use competition and games to facilitate long-term participation and inspiration. Using these apps can increase excitement and enjoyment while exercising.

Younger Generations' Involvement

Though many technological resources are available to older adults, they face challenges when using technology. For instance, they might be unfamiliar with the design and usability of mobile apps. Indeed, they had limited exposure and lacked access to training in technology when growing up. Thus, the involvement of younger generations in increasing physical activity in older adults is important. Tapping on the digital expertise of younger generations, they can help older adults improve their digital literacy, skills, and desire to exercise and become more physically active. Younger generations can exercise with older adults and use mobile apps


to achieve better results, increasing motivation and adherence to exercise routines [10]. In return, this interaction enhances the intergenerational relationship between the younger and older generations and empowers older adults to use digital technology confidently [11], benefiting their physical and psychological health.

Conclusion

Technology has become an integral part of modern life and plays a crucial role in societal functioning. The use of mobile apps and other technological advancements to increase physical activity in older adults can be effective, in conjunction with the participation of younger generations to assist and motivate older adults. We shall leverage these resources to achieve smart aging.

References

- World Health Organization (2018) Global action plan on physical activity 2018-2030: more active people for a healthier world. Geneva: World Health Organization.
- Yarmohammadi S, Mozafar Saadati H, Ghaffari M, Ramezankhani A (2019) A systematic review of barriers and motivators to physical activity in elderly adults in Iran and worldwide. *Epidemiology and health* 41: e2019049.
- World Health Organization. (2022, October 1). Ageing and health. World Health Organization.
- Zhao J, Chau JPC, Zang Y, Lo SH S, Choi K C, et al. (2020) The effects of sitting Tai Chi on physical and psychosocial health outcomes among individuals with impaired physical mobility. *Medicine* 99(34): e21805.
- Naugle KM, Blythe C, Naugle KE, Keith N, Riley ZA (2022) Kinesiophobia Predicts Physical Function and Physical Activity Levels in Chronic Pain-Free Older Adults. *Frontiers in pain research* (Lausanne, Switzerland) 3: 874205.
- Siegmund LA, Distelhorst KS, Bena JF, Morrison SL (2021) Relationships between physical activity, social isolation, and depression among older adults during COVID-19: A path analysis. *Geriatric nursing* (New York, NY, USA) 42(5): 1240-1244.
- Asai T, Oshima K, Fukumoto Y Asuka Matsuo, Shogo Misu, et al. (2022) The association between fear of falling and occurrence of falls: a one-year cohort study. *BMC Geriatr* 22: 393.
- Fang Y, Chau AKC, Wong A et al. (2018) Information and communicative technology use enhances psychological wellbeing of older adults: the roles of age, social connectedness, and frailty status. *Aging & Mental Health* 22(11): 1516-1524.
- World Health Organization. (n.d.) Social Determinants of Health. World Health Organization.
- Stødle IV, Debesay J, Pajalic Z Inger Marie Lid, Astrid Bergland (2019) The experience of motivation and adherence to group-based exercise of Norwegians aged 80 and more: a qualitative study. *Arch Public Health* 77: 26.
- Minghetti A, Donath L, Zahner L, Hanssen H, Faude O (2021) Beneficial effects of an intergenerational exercise intervention on health-related physical and psychosocial outcomes in Swiss preschool children and residential seniors: a clinical trial. *Peer J* 9: e11292.

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