



Effect Of Home-Based Physical Activity on Older Adults' Well-Being In COVID-19 Pandemic

Naureen Akber Ali ^{1A}, Adeel Khoja ^{2B}

¹ The Aga Khan University – School of Nursing and Midwifery, Stadium Road, PO Box 3500, Karachi, Pakistan.

² The Aga Khan University – Department of Medicine, Stadium Road, PO Box 3500, Karachi.

Address Correspondence to N. A. Ali: e-mail: naureenalimeghani@gmail.com

(Received): 13/06/2022 (Accepted): 30.12.2022

A:Orcid ID: : 0000-0001-5442-5598 B:Orcid ID: 0000-0003-1513-408X

Abstract

COVID-19 pandemic has altered the way many people live their life, isolating many who were formerly more social. The lack of access to community services and activities has had a significant negative impact on life, and every individual, including older persons, finding it difficult to cope with the pandemic, leading to increasing anxiety and depression. Subsequently this isolation leads to decrease physical activity and increase sedentary behaviour which has several consequences on older adults' life. Though older adults need to remain at home because they are more likely to contract COVID-19, on the other hand, there is a need to avoid sedentary lifestyle and engage in physical activity. Undoubtedly, the pandemic has imposed a drastic impact on older adults participating in physical activity programmes in groups. Despite that, many older adults continue to engage in physical activity within their confined home spaces. They pointed out, that incorporating physical activity into their daily lives necessitates the adoption of a new culture that are available within limited home spaces. In that regard older adults should be aware about availability of free online physical activity videos and workout materials. Beside applications for home-based meditation and mindfulness-based stress reduction that are free should also be marketed targeting older adults. Physical activity trainers should collaborate with community organisations that serve senior citizens to provide awareness about online physical activity tools. Moreover, programs such as 30-days home-based physical activity challenge can be organised for older people to foster social opportunities and support by giving participants a weekly online check-in as part of the program. However, most importantly experts should engage in teaching and/or facilitating digital technology education classes for older people to utilize online physical activity resources. The role of government and non-profit organization is certainly important in orienting older people with digital technology to avail online physical activity free services. Lastly, creating awareness through social media at the national and provincial level is significantly important to encourage older adults to enhance their activity level within home-based surroundings.

COVID-19 Pandemisinde Ev Temelli Fiziksel Aktivitenin Yaşlı Yetişkinlerin İyi Olma Hali Üzerindeki Etkisi

Özet

COVID-19 salgını, birçok insanın yaşam biçimini değiştirdi ve daha önce daha sosyal olan birçok kişiyi izole etti. Toplum hizmetlerine ve faaliyetlerine erişimin olmaması, yaşam üzerinde önemli bir olumsuz etki yarattı ve yaşlılar da dahil olmak üzere her birey, pandemi ile baş etmekte zorlanarak artan kaygı ve depresyona yol açtı. Daha sonra bu izolasyon, fiziksel aktivitenin azalmasına ve yaşlı yetişkinlerin yaşamı üzerinde çeşitli sonuçları olan hareketsiz davranışların artmasına neden olur. Yaşlı yetişkinlerin COVID-19'a yakalanma olasılıkları daha yüksek olduğu için evde kalmaları gerekse de, diğer yandan, hareketsiz yaşam tarzından kaçınmaya ve fiziksel aktiviteye katılmaya ihtiyaç vardır. Kuşkusuz, pandemi, gruplar halinde fiziksel aktivite programlarına katılan yaşlı yetişkinler üzerinde ciddi bir etki yarattı. Buna rağmen, birçok yaşlı yetişkin, kapalı ev alanlarında fiziksel aktiviteye katılmaya devam ediyor. Fiziksel aktiviteyi günlük yaşamlarına dahil etmenin sınırlı ev alanlarında mevcut olan yeni bir kültürün benimsenmesini gerektirdiğine dikkat çektiler. Bu bağlamda, yaşlı yetişkinler ücretsiz çevrimiçi fiziksel aktivite videolarının ve egzersiz materyallerinin mevcudiyetinin farkında olmalıdır. Ücretsiz olan ev tabanlı meditasyon ve farkındalık temelli stres azaltma uygulamalarının yanı sıra, yaşlı yetişkinleri hedef olarak pazarlanmalıdır. Fiziksel aktivite eğitmenleri, çevrimiçi fiziksel aktivite araçları hakkında farkındalık

sağlamak için yaşlılara hizmet veren toplum kuruluşlarıyla iş birliği yapılmalıdır. Ayrıca, programın bir parçası olarak katılımcılara haftalık çevrimiçi check-in vererek sosyal fırsatları ve desteği teşvik etmek için 30 günlük ev temelli fiziksel aktivite yarışması gibi programlar düzenlenebilir. Bununla birlikte, en önemlisi uzmanlar, yaşlıların çevrimiçi fiziksel aktivite kaynaklarını kullanmaları için dijital teknoloji eğitim sınıflarını öğretmek ve/veya kolaylaştırmakla meşgul olmalıdır. Devletin ve kar amacı gütmeyen kuruluşun rolü, yaşlıları dijital teknolojiyle çevrimiçi fiziksel aktivite ücretsiz hizmetlerden yararlanmaya yönlendirmede kesinlikle önemlidir. Son olarak, sosyal medya aracılığıyla ulusal ve il düzeyinde farkındalık yaratmak, yaşlı yetişkinleri ev tabanlı ortamlarda aktivite düzeylerini artırmaya teşvik etmek için oldukça önemlidir.

INTRODUCTION

COVID-19 pandemic has altered the way many people live their life, isolating many who were formerly more social. The lack of access to community services and activities has had a significant negative impact on life, and every individual, including older persons, finding it difficult to cope with the pandemic, leading to increasing anxiety and depression. (1-3). Subsequently this isolation leads to decrease physical activity and increase sedentary behaviour which has several consequences on older adults' life (4). Though older adults need to remain at home because they are more likely to contract COVID-19, on the other hand, there is a need to avoid sedentary lifestyle and engage in physical activity.

Undoubtedly, the pandemic has imposed a drastic impact on older adults participating in physical activity programmes in groups (5). Despite that, many older adults continue to engage in physical activity within their confined home spaces. They pointed out, that incorporating physical activity into their daily lives necessitates the adoption of a new culture that are available within limited home spaces (5). This reflects that pandemic has broadened the horizon of utilizing home spaces to promote physical activity and decrease sedentary behaviour.

Home space is a major contributing factor of health, and better housing conditions have been linked to improve general and psychosocial health (6, 7). Given that, with increasing age, older adults spend large proportion of their time in their house (8). Therefore, older community-dwellers should enhance their physical activity levels and preserve their health during this unprecedented time which in turn will increase their quality of life and reduce personal and societal burden of physical inactivity and associated ill health (9).

Different studies have shown the impact of COVID-19 on older adult's physical activity level. A study conducted in Spain among older adults during the COVID-19 pandemic showed that older adults

who performed moderate to vigorous physical activity on regular basis during the home isolation reported higher resilience scores and fewer depressive symptoms (10). Similarly, a study done on 165 Japanese participants showed that around 23% of older adults became more active and 29.7% maintained their physical activity level within their home environment whereas, older adults who were less physically active have reported decrease in subjective well-being (11). This highlighted that even mild physical activity during the COVID-19 pandemic assist to mitigate some of the negative mental health effects that older persons may be experiencing as a result of social distancing (1). Thus, to avoid negative repercussion of pandemic older adults should be indulge in physical activity using their home space (12, 13).

Evidence showed that limited outdoor physical activity options in pandemic have resulted in detrimental effect on life style pattern; preliminary finding also showed a drop of 5% to 20% in total steps across the world (14). This certainly directs the older adults about shifting to inexpensive home-based physical activity. Moreover, home space utilization and availability of home equipment were found to be significant predictors of moderate to vigorous physical activity during the pandemic (15, 16). Thus, there is need of raising proper awareness which in turn will help to enhance physical activity level and wellbeing of older adults, thereby empowering them to maintain their active participation within the community. Therefore, the implementation of important steps to promote older people's physical activity within their home space is warranted.

In that regard older adults should be aware about availability of free online physical activity videos and workout materials. Beside applications for home-based meditation and mindfulness-based stress reduction that are free should also be marketed targeting older adults. Physical activity trainers should collaborate with community organisations that serve senior citizens to provide awareness about online physical activity tools. Moreover, programs

such as 30-days home-based physical activity challenge can be organised for older people to foster social opportunities and support by giving participants a weekly online check-in as part of the program. However, most importantly experts should engage in teaching and/or facilitating digital technology education classes for older people to utilize online physical activity resources. The role of government and non-profit organization is certainly important in orienting older people with digital technology to avail online physical activity free services. Besides, a proper campaign to adopt behavioural change by motivating older adults to perform physical activity within home surroundings is certainly important. Lastly, creating awareness through social media at the national and provincial level is significantly important to encourage older adults to enhance their activity level within home-based surroundings which is an emergent priority in the present context.

REFERENCES

1. Callow DD, Arnold-Nedimala NA, Jordan LS, Pena GS, Won J, Woodard JL, et al. The mental health benefits of physical activity in older adults survive the COVID-19 pandemic. *The American Journal of Geriatric Psychiatry*. 2020;28(10):1046-57.
2. Jakobsson J, Malm C, Furberg M, Ekelund U, Svensson M. Physical activity during the coronavirus (COVID-19) pandemic: prevention of a decline in metabolic and immunological functions. *Frontiers in Sports and Active Living*. 2020;57.
3. Jiménez-Pavón D, Carbonell-Baeza A, Lavie CJ. Physical exercise as therapy to fight against the mental and physical consequences of COVID-19 quarantine: Special focus in older people. *Progress in cardiovascular diseases*. 2020;63(3):386.
4. Richardson DL, Duncan MJ, Clarke ND, Myers TD, Tallis J. The influence of COVID-19 measures in the United Kingdom on physical activity levels, perceived physical function and mood in older adults: A survey-based observational study. *Journal of Sports Sciences*. 2021;39(8):887-99.
5. 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(1):e19007.
6. Thomson H, Thomas S, Sellstrom E, Petticrew M. The health impacts of housing improvement: a systematic review of intervention studies from 1887 to 2007. *American journal of public health*. 2009;99(S3):S681-S92.
7. Shaw M. Housing and public health. *Annu Rev Public Health*. 2004;25:397-418.
8. Benzinger P, Iwarsson S, Kroog A, Beische D, Lindemann U, Klenk J, et al. The association between the home environment and physical activity in community-dwelling older adults. *Aging clinical and experimental research*. 2014;26(4):377-85.
9. Son JS, Nimrod G, West ST, Janke MC, Liechty T, Naar JJ. Promoting older adults' physical activity and social well-being during COVID-19. *Leisure Sciences*. 2021;43(1-2):287-94.
10. Carriedo A, Cecchini JA, Fernandez-Rio J, Méndez-Giménez A. COVID-19, psychological well-being and physical activity levels in older adults during the nationwide lockdown in Spain. *The American Journal of Geriatric Psychiatry*. 2020;28(11):1146-55.
11. Suzuki Y, Maeda N, Hirado D, Shirakawa T, Urabe Y. Physical activity changes and its risk factors among community-dwelling Japanese older adults during the COVID-19 epidemic: associations with subjective well-being and health-related quality of life. *International journal of environmental research and public health*. 2020;17(18):6591.
12. Rodríguez MÁ, Crespo I, Olmedillas H. Exercising in times of COVID-19: what do experts recommend doing within four walls? *Revista española de cardiología (English ed)*. 2020;73(7):527.
13. Gierc M, Riazi NA, Fagan MJ, Di Sebastiano KM, Kandola M, Priebe CS, et al. Strange days: adult physical activity and mental health in the first two months of the COVID-19 pandemic. *Frontiers in Public Health*. 2021;9:325.
14. Fitbit. The impact of coronavirus on global activity 2020 [Available from: <https://blog.fitbit.com/covid-19-global-activity/>].
15. Rhodes RE, Liu S, Lithopoulos A, Zhang CQ, Garcia-Barrera MA. Correlates of perceived physical activity transitions during the COVID-19 pandemic among Canadian adults. *Applied Psychology: Health and Well-Being*. 2020;12(4):1157-82.
16. Hammami A, Harrabi B, Mohr M, Krstrup P. Physical activity and coronavirus disease 2019 (COVID-19): specific recommendations for home-based physical training. *Managing Sport and Leisure*. 2022;27(1-2):20-5.