

POSTER PRESENTATION 3: PHYSICAL AND MENTAL HEALTH

Preliminary results from a technology-integrated health and wellness intervention for seniors in an urban low-income community in Korea

J. Y. Yi, E. Kim, H. Choi, Y. I. Jung, H. Kim

Purpose Health inequities based on regional disparities can be addressed by regionally tailored services. However, health management strategies for the socioeconomically vulnerable elderly in the city are insufficient high levels of health inequalities based on socioeconomic status. On the other hand, the COVID-19 pandemic has increased the need for older adults to stay connected via technology-based interventions amidst periods of social distancing and closure of public centers. The purpose of this study is to describe the preliminary results of a pilot trial of the 'Health and Wellness Program for Seniors(HWePS)' project, a local community-based, technology-enhanced, multilevel health equity intervention conducted in an urban low-income community in South Korea. **Method** The study area was selected based on vulnerability in various health and socioeconomic indicators. The sample includes 28 seniors who participated in the first cluster of the project, which operated as a pilot trial. Participants of the pilot trial were purposively sampled for those with relatively higher levels of education and smartphone usage rates to assess feasibility of the technology-based components. The HWePS is an evidence-based, integrated health visit service model comprised of: 1) multichannel health information delivery(instant messaging services or postal mail); 2) technology enhanced care-management with tailored nutrition, exercise, emotional, and social intervention programs, 3) region-level intervention including capacity building and creating healthy living environments. Participants utilized a smartphone application linked with a web-based management system, developed by the research team, to participate in the intervention. The application was used to collect initial data on seniors' functional status and needs, to design and deliver case management through task assignment and direct seniors to appropriate local resources. Community health leaders were assigned to seniors to encourage seniors to engage in health behaviors both in person and remotely using the application. To verify the contents of the intervention program and to understand its preliminary effects, health indicators and satisfaction levels were collected through questionnaires before and after the 6-week intervention period. **Results and Discussion** Pre-post analysis was performed on 23 seniors who had completed the surveys. All 23 participants had utilized the smartphone application during the intervention while levels of usage varied. Nineteen (83%) received weekly health information via IMS, while remaining 17% received it through postal mail. The average age of the sample was 73 with 55% women. 63% had elementary or middle school education and 41% reported a monthly household income of less than 1 million won (≈1,000 USD). After participating in the 6-week intervention, participants showed improvements in self-rated health, health-related quality of life, self-efficacy, and walking practice rate. Overall satisfaction with the project was an average of 7.8 out of 10. The most satisfactory components were reported to be walking encouragement, smartphone education (as part of the region-level capacity building), social relationship activities, and nurse visits. Preliminary findings from project results showed satisfactory results as health indicators generally improved in a positive direction with high amongst participants. In particular, the pilot trial provided evidence for effectiveness of using technology-enhanced health interventions amongst urban-poor older adults.

References

Yi, J. Y., Kim, H., & Chi, I. (2019). Urban-rural differences in multimorbidity and associated factors in China and Korea: A population-based survey study. *Geriatrics & gerontology international*, 19(11), 1157–1164. <https://doi.org/10.1111/ggi.13771>

Keywords: health equity, community, well-being, older adults, technology intervention

Address: 1 Gwanak-ro, Gwanak-gu, Seoul, South Korea

Email: hk65@snu.ac.kr

Acknowledgement (if applicable) This work was supported by a grant from the Jungnanggu Public Health Center, funded by the Seoul Metropolitan City and Korea Center for Disease Control (KCDC) (2020-2023); and the National Research Foundation of Korea (BK21 Center for Integrative Response to Health Disasters, Graduate School of Public Health, Seoul National University)(NO.419 999 0514025)