

NICHE Research Grant

Dissemination Report

1. General information of the study

✧ Project title

Effects of a Video-based mHealth Program for the Homebound Older Adults:
A Pilot Randomized Controlled Trial

✧ Authors

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2. Summary of the study

✧ Introduction

Homebound older adults can be difficult to reach due to their functional limitations and social distancing during the pandemic, leaving their health needs unrecognized at an earlier stage. This study aims to empower the vulnerable homebound older adults with enhanced confidence in undertaking self-management in the community.

✧ Aim of the study

To determine the effectiveness of a telecare case management program for homebound older adults during the COVID-19 pandemic.

✧ Methods

This was a randomized clinical trial conducted in Hong Kong from May 21, 2020, to July 20, 2020, with a last follow-up date of October 20, 2020. This study adopted a single-blinded design, where the data collector was blinded but the participants and healthcare providers were not. Inclusion criteria were being aged 60 or over with a smartphone and going outside less than once a week in the previous six months. Participants in the telecare group received 1) weekly

nurse case management supported by a social service team via phone call and 2) weekly video messages covering self-care topics delivered via smartphone for three months; participants in the control group received monthly social calls. The primary outcome was the change in general self-efficacy from pre-intervention to post-intervention at three months. It is measured by the Chinese version of the 4-point Likert General Self-Efficacy Scale, with higher scores representing higher self-efficacy levels.

✧ Results

A total of 68 participants who fulfilled the criteria were enrolled (34 in the control group and 34 in the intervention group; 56 [82.4%] were women; and mean [SD] age, 71.8 [6.1] years). At 3 months, there was no statistical difference in self-efficacy between the telecare group and the control group. Scores for self-efficacy improved in both groups ($\beta = 1.68$; 95% CI, -0.68 to 4.03 ; $P = .16$). No significant differences were found in basic and instrumental activities of daily living, depression, and use of health care services. However, the telecare group showed statistically significant interactions of group and time effects on medication adherence ($\beta = -8.30$; 95% CI, -13.14 to -3.47 ; $P = .001$) and quality of life (physical component score: $\beta = 4.99$; 95% CI, 0.29 - 9.69 ; $P = .04$).

✧ Conclusions and Implication

In this randomized clinical trial, participants who received the telecare program were statistically no different from the control group with respect to changes in self-efficacy, although scores in both groups improved. After the intervention, the telecare group had better medication adherence and quality of life than the control group, although the small sample size may limit generalizability. A large-scale study is needed to confirm these results.

3. Acknowledgements

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4. References

Wong, A.K.C., Wong, F.K.Y., Chow, K.K.S., Wong, S.M., & Lee, P.H. (2021). Effects of a telecare case management program for homebound older adults during the COVID-19 pandemic: A pilot randomized clinical trial. *JAMA Network Open*, 4(9), e2123453. doi:10.1001/jamanetworkopen.2021.23453.