

# Use, Satisfaction, and Preference of Online Health Interventions among Older Adults with Multimorbidity in Hong Kong Primary Care during COVID-19

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## INTRODUCTION

- Hong Kong has a relatively high smartphone penetration rate among older adults, and the prevalence increased year by year.
- This provides a chance to implement online health interventions targeting older adults, especially during the COVID-19 epidemic when social distancing are needed.

## OBJECTIVES

- This study first aimed to identify the use of social media in older adults with multimorbidity in Hong Kong primary care.
- It also aimed to assess the implementation and feasibility of online health interventions in this population, which included their satisfaction and preference.

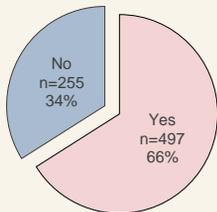
## METHODS

- This cross-sectional study was conducted in a primary care programme among 752 older adults with multimorbidity in Hong Kong.
- Online and face-to-face interventions (e.g. pain management, cognitive training) were offered based on the participants' (1) physical needs (e.g. chronic pain, sarcopenia) or (2) mental/social needs (e.g. depression, cognitive impairment, loneliness).
- The online interventions were (1) pain management, (2) mindfulness, (3) management of diabetes and hypertension, (4) drug management, (5) intervention for sarcopenia and frailty, (6) anxiety, (7) loneliness, and (8) depression.
- 362 Participants attending online interventions were invited for a feedback survey regarding their online experience.
- Independent sample t-test, Chi-square test, and logistic regression were used in the analysis.

## RESULTS

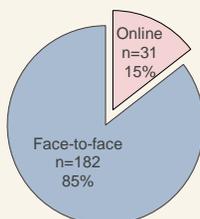
### SOCIAL MEDIA USE

66% of the 752 participants used social media.



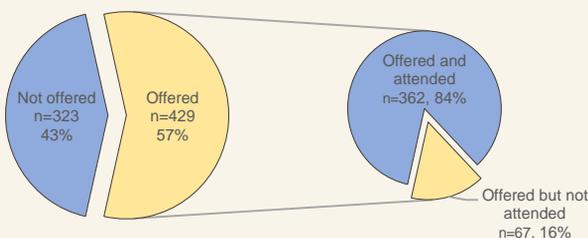
### PREFERENCE

15% of the participants who attended online interventions preferred online.



### ATTENDANCE OF ONLINE INTERVENTIONS

429 (57.0%) participants were offered eight kinds of online interventions and 362 (84.4%) of them attended.



### COMPARISONS BETWEEN PARTICIPANTS

Characteristics	Attended online interventions (n=362)	Declined to attend online interventions (n=67)	p
Age (years)	68.1±5.7	71.2±6.8	<0.001
Living alone	74 (20.4)	22 (32.8)	0.025
Income ≥10000HKD	112 (30.9)	12 (17.9)	0.031
Having social security	107 (29.6)	41 (61.2)	0.001
MoCA	26.8±3.2	24.1±4.4	<0.001
PHQ-9	7.4±5.0	5.5±4.7	0.006

Characteristics	Responded to the online feedback survey (n=213)	Did not respond to the online feedback survey (n=149)	p
Education year	8.7±3.7	7.4±3.8	<0.001
MoCA	26.4±2.8	25.0±3.5	<0.001

MoCA: Montreal Cognitive Assessment; PHQ-9: Patient Health Questionnaire-9. Factors with significant results ( $p < 0.05$ ) in the multiple regression were presented in the Table.

### FACTORS ASSOCIATED WITH SATISFACTION AND PREFERENCE

Factors	Adjusted OR (95% CI)	p
<b>Satisfaction</b>		
Higher education	0.65 (0.48, 0.89)	0.006
Internet connection issue	0.50 (0.37, 0.66)	<0.001
Self-efficacy on mobile apps	1.58 (1.33, 1.88)	<0.001
<b>Preference on online intervention</b>		
Internet connection issue	0.52 (0.31, 0.87)	0.013
Self-efficacy on mobile apps	1.41 (1.05, 1.90)	0.021

n=213. Factors with significant results ( $p < 0.05$ ) in the multiple regression were presented in the Table.

## CONCLUSION

- More than half of older adults with multimorbidity used social media in Hong Kong primary care.
- Older adults preferred face-to-face interventions more than online interventions.
- Participants who declined to attend online interventions were older, living alone, having a lower income level, more supported by social security, and more cognitively declined and less depressed.
- Participants who did not respond to the feedback survey had fewer years of education and worse cognitive function.
- A higher level of education, Internet connection issue, and lower level of self-efficacy on mobile apps were associated with less satisfaction with online interventions, and Internet connection issue and lower level of self-efficacy on mobile apps were associated with less preference for online interventions.