



Collaborative research with local governments to prevent the need for long-term care and promote healthy community development

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Abstract

In the super-aged society of Japan, the creation of 'familiar places for elderly people to go' in local communities is being promoted as a strategy to reduce the need for long-term care (LTC). However, during the COVID-19 pandemic, it has been reported that the physical, social, and cognitive functions of many older people have deteriorated as a result of their refraining from going out.

Our laboratory is collaborating with several local governments, conducting surveys, and evaluating local government projects in order to promote efficient and effective LTC prevention.

Background & Results

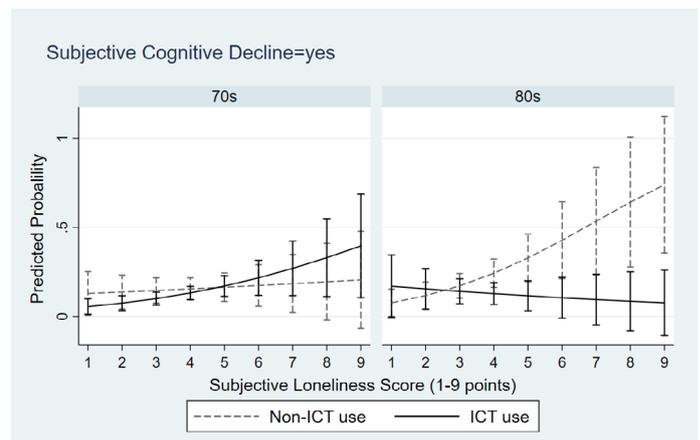
The purpose of this study was to investigate the association between loneliness/social isolation and cognitive decline in older adults, and specifically to assess whether the use of information and communications technology (ICT) can moderate these relationships during the COVID-19 pandemic. The research was conducted in collaboration with Toyono Town, Nose District, Osaka Prefecture (population: approximately 19,000 in 2021, aging rate:46.8%) from February to March 2021. The subjects were 1,400 people randomly selected from the residential registration stratified by age, ranging from 70 to 89 years old. An anonymous self-administered questionnaire, along with a return envelope addressed to Toyono Town Hall, was mailed to the subjects.

Responses were received from 1,003 people (response rate:71.6%). The survey results revealed that approximately 69% of elderly people use ICT. A total of 21.6% of those in their 80s reported subjective cognitive decline due to the influence of the COVID-19 pandemic, almost twice as many as those in their 70s (12.0%). Results of covariate-adjusted logistic regression analysis with subjective cognitive decline as the outcome showed a significant independent correlation with loneliness in the 70s and with loneliness, isolation, and ICT non-use in the 80s. Furthermore, examination of the interaction between ICT use and loneliness or isolation showed no significant interaction for those in their 70s; however, for those in their 80s, ICT use was found to moderate the relationship between loneliness or isolation and subjective cognitive decline.

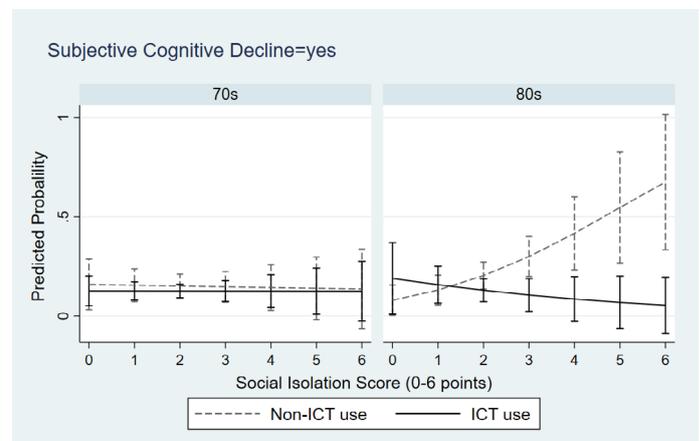
Significance of the research and Future perspective

We are currently conducting more detailed surveys of living conditions of older people in collaboration with the town, and based on the results, we are developing our research into proposing and evaluating efficient and effective health projects.

Recently, local governments have been encouraging the use of ICT in various administrative services with the aim of promoting DX. However, it is considered that a certain percentage of people are unable to use ICT for various reasons, especially the older population, and if LTC prevention measures using ICT are rapidly developed and spread, there is a risk that health disparities will further widen. We aim to promote effective LTC prevention measures, including the use of ICT, in order to build a society in which no one is left behind.



Interaction effects between ICT use and loneliness on cognitive decline by age group



Interaction effects between ICT use and social isolation on cognitive decline by age group

Patent

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URL

Keyword

Li, Yaya; Godai, Kayo; Kido, Michiko et al. Cognitive decline and poor social relationship in older adults during COVID-19 pandemic: can information and communications technology (ICT) use helps? *BMC Geriatr.* 2022, 22(1), 375. doi: 10.1186/s12877-022-03061-z
 Kabayama, Mai; Mikami, Hiroshi; Kamide, Kei. Multidimensional factors associated with the loss of independence: a population-based longitudinal study. *Geriatr Gerontol Int.* 2018, 18, 448-445. doi: 10.1111/ggi.13209

community dwelling older people, LTC prevention, ICT, loneliness, COVID-19 pandemic