

POSTER PRESENTATION 4: INFORMATION AND COMMUNICATION

ICT usage and health behavior among Korean middle-aged men and women: The mediating role of self-efficacy

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Purpose With the spread of information and communication technology (ICT), it has become a global trend to use the Internet or smartphones to find health information. However, less is known about whether ICT usage, specifically for information (e.g., searching information and reading news) is indeed linked to health behaviors, such as physical exercise and health monitoring activities. This study aimed to investigate the association between ICT usage for information and health (promoting) behaviors among middle-aged men and women in South Korea. Drawing on the Social Cognitive Theory, this study further examined the mediating role of self-efficacy in the association. **Method** We analyzed a sample of 4,628 middle-aged adults (aged 49–64) from the 2012 *Korean Baby Boomer Panel Study* and *Korean Forgotten Generation Study*. The respondents reported their ICT usage for information through internet and smartphone, two dimensions of health promoting behaviors (i.e., exercise and health monitoring), and self-efficacy. Given gender gaps found in technology use and health behavior, we conducted multi-group structural equation modeling to examine the ICT usage-health behavior links for men ($n = 2,132$) and women ($n = 2,496$) separately (see Figure 1). Sociodemographic and health characteristics (e.g., age, education, income, marital status, work status, self-rated health, and depressive symptoms) were included as controls. **Results and Discussion** Overall, more men (30.4%) used ICT for information than women (24.1%); women were more frequently engaged in exercise than men. However, we found no gender differences in health monitoring and self-efficacy. Our results showed that the associations among ICT usage, self-efficacy, and health behaviors differed by gender. For women, ICT usage for information had direct effects on both exercise and health monitoring. ICT usage also showed indirect effects on both exercise ($\beta = 0.02$, $p = .009$) and health monitoring ($\beta = 0.01$, $p = .003$) via self-efficacy; thus, ICT usage for information was associated with higher levels of self-efficacy, which in turn, were linked to more frequent exercise and higher levels of health monitoring. For men, the use of ICT for information showed a direct effect on exercise, but not on health monitoring. The mediating role of self-efficacy was significant only for health monitoring ($\beta = 0.01$, $p = .005$). Thus, ICT usage for information was associated with higher levels of self-efficacy, which in turn, lead to higher levels of health monitoring. This result is consistent with prior studies showing positive associations between health behaviors and self-efficacy among older adults (Wu & Sheng, 2019). Given that health behaviors in midlife are linked to the rate of physical decline and various health outcomes in later life, including longevity, it is essential to identify how ICT usage contributes to improving health behaviors among middle-aged adults in Korea. Also, technology is believed to have great potential to increase health monitoring by providing health-related information and enhancing self-efficacy for both men and women. In order to ensure that ICT usage for information encourages to do more exercise for men, more research is needed to find out the factors underlying this relationship.

References

Wu, F., & Sheng, Y. (2019). Social support network, social support, self-efficacy, health-promoting behavior and healthy aging among older adults: A pathway analysis. *Archives of Gerontology and Geriatrics*, 85, 103934. <https://doi.org/10.1016/j.archger.2019.103934>

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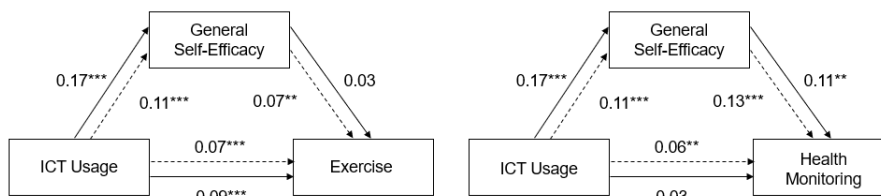


Figure 1. Direct and Indirect Paths Between ICT Usage and Health Behavior

→ Men - - - -> Women

Notes. $N = 4,628$. Root mean square error of approximation (RMSEA) = .02; Comparative Fit Index (CFI) = 1.00. Path parameters are standardized coefficients. Covariates (i.e., age, education, income, marital status, work status, self-rated health, and depressive symptoms) were added for the mediator and outcome.

** $p < .01$. *** $p < .001$.