The effect of digital literacy in the elderly on life satisfaction: Focusing on depression and social participation
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Purpose Modern society is facing many changes due to the Fourth Industrial Revolution. In addition, as daily life became non-face-to-face due to the prolonged COVID-19, the use of non-face-to-face digital devices using information and communication technology was further accelerated. Due to these changes, various digital services such as telemedicine and mobile financial services could be used, and functions such as work and school could be maintained even in the COVID-19 situation. However, the rapid transition to an information society further revealed the information vulnerability of the elderly. This is because digital literacy, which is a key competency to adapt in the information society, has acted as a limitation for the elderly, who are vulnerable to information, and their ability to use digital devices. Many previous studies pointed out the low level of informatization in the elderly and various problems that may arise from this(H. S. Kim, J. S. Shim, 2019; NIA, 2020; S. Y. Lee, 2021). The elderly, who are digital vulnerable, are feared to intensify social isolation in the current network era, which is likely to have a negative impact on mental health (Park et al., 2022). Social participation is a representative factor that can control mental health(Kim et al., 2019). Social participation has been verified as a factor that can improve life satisfaction, such as self-realization and overcoming alienation. Therefore, this study attempts to verify the moderated mediating effect of social participation through depression in the relationship between digital literacy and life satisfaction of the elderly.

Method This study analyzed 8,664 elderly aged 65 or older who responded to the 2020 Senior Survey conducted jointly with the Korea Institute for Health and Social Affairs and the Ministry of Health and Welfare, and attempted to verify the moderated mediating effect using SPSS 23.0 and SPSS PROCESS 3.4.1. The verification of the research model proceeds in a total of three steps. First, the mediating effect of depression in the relationship between digital literacy and life satisfaction of the elderly is verified using the bootstrapping method. Second, in order to examine the moderating effect of social participation in the relationship between depression and life satisfaction, multiple regression analysis is conducted after averaging. Finally, in the relationship between digital literacy and life satisfaction, the moderated mediating effect of depression is verified by social participation.

Results and Discussion The main findings are as follows. First, it was verified that depression had a partial mediating effect in the relationship between digital literacy and life satisfaction. Second, it was verified that social participation had a moderating effect in the relationship between depression and life satisfaction. Third, it was verified that in the relationship between digital literacy and life satisfaction, the mediating effect of depression decreases as social participation increases. This study is meaningful in that it confirmed the effectiveness of digital literacy and social participation as a way to increase life satisfaction of the elderly. Therefore, it is necessary to prepare an informatization education plan to improve the level of digital device use of the elderly, and to provide opportunities to continuously participate in society. These research results will be the basis for suggesting ways to solve problems such as digital information gap and digital inequality for the elderly by establishing welfare for the elderly, education for the elderly, and policies to improve self-efficacy.

Keywords: older adults, digital literacy, depression, life satisfaction, moderated mediating effect
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