

# OPP: HEALTH & SELF ESTEEM

## Digital literacy and health of older people in a Korean rural village

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**Purpose** Digital literacy plays a significant role in the health and well-being of older adults. Studies have shown that higher levels of digital literacy among older people are associated with positive health outcomes such as reduced chronic diseases, improved physical function, lower depression levels, higher life satisfaction and increased social participation (Hwang et al, 2020, Oh & Bae, 2024). Information and communication technologies are increasingly used by and for older adults in everyday life and service interventions. However, according to 'Report on Digital Divide 2023' by the Korean Ministry of Science and ICT, digital informatization level of the 60 and older scored 70.7 which is lower than the younger age groups (123.7 for those in the 20s). The gap among the older people is significant as well. Those in the 60s scored 78.6 while 70 and older scored 51.5 (The average of the total groups is 100). The older people scored 95.3 in terms of accessibility (own computer and mobile devices, access to internet), 55.3 in capacity (ability to use computer and mobile devices) and 73.8 in usage (quantitative and qualitative assessment of technology use). In this context, the purpose of this research is to analyze the level of digital literacy of older people residing in a rural village in Korea and explore the relationship between digital literacy and their health. **Method** A secondary data analysis was conducted from the Korean Social Life, Health, and Aging Project (KSHAP). KSHAP is a multidisciplinary cohort study conducted in a rural K village in South Korea since 2012. KSHAP investigates the relationship between social network and health of older people over the years that measured various health biomarkers from blood, hair, and brain magnetic resonance imaging to examine their associations with sociocentric (global) social network data of older adults in the entire village (Baek et al, 2024). For the first time in 2023, some questions related to digital literacy (access of digital devices, use of devices, ability to use smartphone) were added to the questionnaire. The KSHAP cohort K included participants aged 60 years or older. A survey involving 573 rural residents was conducted from January to March in 2023. An interviewer visited home of each respondent. **Results and Discussion** Socio-demographic characteristics of the sample showed 9.5 years of formal education, 62% working, 28% living alone. In terms of access to digital devices, 64.2% of older people had smartphones (PC 35.8%, internet TV 23.1%, AI speakers 6.1% and smart watch 3%). 98% of the smartphone owners used them whereas only 49% used the PC. Among the 12 functions of the smartphone, phone calls, text messages, camera and video functions showed the average score of more than 3-point (4-point scale) and other functions such as shopping, banking and service use scored less than 2-point. Further analysis showed a statistically significant relationship between digital literacy and health of older people in rural Korea. When education level, work, marital status and income level were controlled the overall health was influenced by the smartphone use ability ( $R^2=0.123$ ,  $p<0.05$ ). Digital access had effect on independent living ( $R^2=0.128$ ,  $p<0.05$ ) and physical pain ( $R^2=0.091$ ,  $p<0.05$ ). Use of digital device also influenced physical pain ( $R^2=0.108$ ,  $p<0.01$ ) and depressive mood ( $R^2=0.241$ ,  $p<0.05$ ). Smartphone use ability also showed positive effect on mobility ( $R^2=0.1029$ ,  $p<0.05$ ). 'Report on Digital Divide 2023' showed that the average of 86.8% of the rural residents have smartphones whereas only 64.2% of the KSHAP respondents owned the smartphone. There is a need for more in-depth comparative analysis, but the findings of KSHAP suggests some implications for improving digital literacy among older adults in rural Korea to support healthier aging. Continued effort for enhancing accessibility to the digital devices and providing more opportunities for digital capacity-building is needed in rural areas.

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**Keywords:** digital literacy, rural aging, health, smartphone

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**Acknowledgement:** This work was supported by the Ministry of Education of the Republic of Korea, the National Research Foundation of Korea [Grant No. NRF-2022S1A3A2A02089737].