



Digital informatization level and health satisfaction among elderly people : correlation and analysis of the influencing factors

- Based on the 2017 Digital Divide Survey

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Purpose

- The purpose of this study was to (a) examine the relationship between digital informatization level and health satisfaction and (b) identify the factors that influence the health satisfaction of older adults in South Korea.

Methods

- Secondary data analysis was conducted based on “The 2017 Digital Divide Survey” published by the National Information Society Agency (NIA), South Korea.
- The participants were **1,548** older adults (age ≥ 65 years) who had been recruited from the general population and individuals with disabilities.
- The following variables were examined: sociodemographic characteristics, social support, digital informatization level, the motivation to use digital devices, attitudes toward the use of digital devices, the outcomes of the use of digital devices, and health satisfaction.
- The data were analyzed using t-test, analysis of variance, and Pearson’s correlation and hierarchical multiple regression analyses.

Results

1 . Social support, digital informatization level, health satisfaction, and motivation • attitude • achievement of digital device use of the participants

Table 1. Social support, digital informatization level, health satisfaction, and motivation • attitude • achievement of digital device use of the participants N=1,548

| Variables | Mean ± SD | Range |
|---|----------------|-----------|
| Social support | 31.84(5.50) | 11 ~ 44 |
| Digital informatization level* | | |
| Access | 77.07(23.56) | 0 ~ 100 |
| Competence | 14.41(27.14) | |
| Application | 21.06(28.88) | |
| Overall | 29.60(23.70) | |
| Health satisfaction | 2.33(0.72) | 1 ~ 4 |
| Motivation for the use of digital devices | 9.94(3.80) | 5 ~ 20 |
| Attitude towards the use of digital devices | Categories | N(%) |
| | Not applicable | 936(60.5) |
| | Low(6~12) | 208(13.4) |
| | Medium(13~18) | 323(20.9) |
| Outcome of the use of digital devices | High(19~24) | 81(5.2) |
| | Not applicable | 936(60.5) |
| | Low(6~12) | 98(6.3) |
| | Medium(13~18) | 336(21.7) |
| | High(19~24) | 178(11.5) |

* Digital informatization level (Overall) = Access level (0.2) + Competence level (0.4) + Application level (0.4)

2. Correlations between digital informatization level and health satisfaction in the elderly

Table 2. Pearson's correlation results between social support, digital informatization level, motivation for digital device use, and health satisfaction

| N=1,548 | | | | |
|---|----------------|---|-----------------------------------|---------------------|
| Variables | Social support | Digital informatization level (Overall) | Motivation for digital device use | Health satisfaction |
| Social support | 1 | | | |
| Digital informatization level (Overall) | .304 (<.001**) | 1 | | |
| Motivation for digital device use | .274 (<.001**) | .603 (<.001**) | 1 | |
| Health satisfaction | .398 (<.001**) | .309 (<.001**) | .266 (<.001**) | 1 |

*p<0.05, **p<0.01

3. Factors affecting the health satisfaction among the elderly

Table 3. Hierarchical multiple regression analysis of the factors affecting health satisfaction

| N=1,548 | | | | |
|--|----------------------|-----------------|------------------|-----------------|
| Variable | Model 1 | | Model 2 | |
| | B (SE [†]) | t (p) | B (SE) | t (p) |
| Constant | .856 (.124) | 6.905 (<.001**) | .824 (.129) | 6.398 (<.001**) |
| Age (year) (reference: 65~69) | 70~74 | -.156 (.045) | -3.477 (.001**) | -1.102 (.289) |
| | 75~79 | -.141 (.054) | -2.641 (.008**) | -.057 (.290) |
| | ≥85 | -.518 (.164) | -3.160 (.002**) | -.372 (.022*) |
| Education level (reference: Below Elementary school) | High school | .163 (.047) | 3.455 (.001**) | .069 (.048) |
| Occupation (others) (reference: Farmers and fishermen) | | .148 (.067) | 2.193 (.028*) | .116 (.066) |
| Living type (2 or more living together) (reference: Living alone) | | -.113 (.046) | -2.468 (.014*) | -.089 (.045) |
| Monthly family income (10,000KRW) (reference: <100) | 100≤ < 300 | .098 (.043) | 2.298 (.022*) | .082 (.042) |
| Disability (Disabled) (reference: Non-disabled) | | -.374 (.047) | -8.047 (<.001**) | -.357 (.046) |
| Social support | | .047 (.003) | 15.114 (<.001**) | .039 (.003) |
| Digital informatization level (Overall) | | | .004 (.001) | 2.532 (.011*) |
| Motivation for the use of digital devices | | | .015 (.006) | 2.689 (.007**) |
| Attitude towards the use of digital devices (high) (reference: Not applicable) | | | .182 (.087) | 2.085 (.037*) |
| R ² | .226 | | .262 | |
| adjusted R ² | .217 | | .250 | |
| R ² Change | | | .003 | |
| F-value | 24.779** | | 21.622** | |

*p<0.05, **p<0.01

Conclusion

- The present findings showed that digital informatization level, the motivation to use digital devices, and attitudes toward the use of digital devices influenced the health satisfaction of older adults in South Korea.
- To enhance the health satisfaction of South Korean older adults, it is necessary to be cognizant of their digital informatization level, motivation to use digital devices, and attitudes toward the use of digital devices. Furthermore, it is necessary to develop effective interventions that can improve the digital informatization level and health satisfaction of South Korean older adults.