The Effect of ICT Utilization Competency on the Psychological Well-being of the Elderly in the Post-Corona Era: Focusing on the Self-Esteem of the Elderly

Ji-young Won

Professor, Kangnam University, South Korea

ABSTRACT

The study assesses how levels of competency in using smart devices and actual use of social media services were associated with elderly people's self-esteem. Given that the Covid-19 pandemic remains an ongoing phenomenon, social interactions using smart devices appears to be more relevant to the psychological well-being of the elderly than ever before. The study utilized the Korean Media Panel Survey collected by Korea Information Society Development Institute (KISDI) in 2018 and 2020. The study found that elderly people who were able to use smart devices tended to use more internet media services and reported higher levels of self-esteem than those who did not. In particular, respondents who experienced increasing competency in their use of smart devices reported high levels of self-esteem. In addition, older adults living alone were less likely to access social media and more vulnerable in terms of psychological well-being. The study suggests that social services that improve competency in the use of smart devices and encourage social media use can enhance psychological well-being among the elderly, who may have difficulties in maintaining social interactions.

KEY WORDS

Psychological Well-being, Social Media, Internet Media, Smart Device, The Elderly, Self-esteem

Corresponding Author:

Ji-young Won, Professor, Division of Social Welfare, Kangnam University, Yongin, South Korea. E-mail: jywon@kangnam.ac.kr

https://orcid.org/0000-0002-7171-4970

Received: August 13, 2021; Reviewed: September 3, 2021; Revised and Accepted: September 7, 2021

INTRODUCTION

Web-based social media is a powerful tool to connect family and friends across long distances. This study examines how elderly people's ability to use smart devices and their actual use of social media affects their psychological well-being, especially self-esteem. Given that the Covid-19 pandemic remains an ongoing phenomenon, face-to-face interactions among people have been extremely limited, particularly for the elderly who are most vulnerable to the virus. Given this situation, social interactions that use smart devices can be a more significant predictor of psychological well-being among the elderly than ever before.

Previous research has consistently highlighted the positive effects of computer and internet usage on the daily lives of the elderly. As adults enter into older adulthood, maintaining social connectedness may become more difficult due to limitations on mobility, chronic disease, and other age-related issues. Therefore, using web-based social media may provide a feasible alternative to maintain and even expand their social relationships and thereby improve the quality of their life (Smith, 1999; White, 2000).

However, while social media has become an essential part of life among younger generations, older people are less likely to use such applications. In addition, some studies suggested that the elderly prefer close relationships based on face-to-face interactions and therefore, positive effects of online interactions are relatively insignificant for older adults (Jeong Kyu-hyoung et al., 2013; Kim & Jun, 2014). Considering the rapid growth of social services aimed at improving ICT competency among the elderly, it will be necessary to assess whether the ICT competence of the elderly improves their psychological well-being.

Overall, the present study focused on two features of social media use (i.e. the competency of smart device use and the use of internet media services) and examined how social media use affected elderly people's self-esteem during the Covid-19 pandemic. This study addressed the following research hypotheses:

- **Hypotheses 1.** The elderly become more likely to use smart devices and internet media services after the outbreak of Covid-19.
- **Hypothesis 2.** Competency in smart device use and actual use of internet media services are positively related to self-esteem among the elderly.

LITERATURE REVIEW 2

2.1 | Social Support and Psychological Well-being of the Elderly

In addition to depression, self-esteem is one of the most commonly used indicators to measuring the psychological well-being of the elderly. According to the Self-Esteem Index (Rosenberg, 1965), self-esteem relates to a person's feelings of self-worth. It has been known as an important psychological feature that predicts development in childhood and adolescence, and quality of life in adulthood (Lee So-youn & Yeo Kwan-hyun, 2020). Although self-esteem is unlikely to show large normative changes over time, change can occur in response to important transitions or major life events (Trzesniewski et al., 2003). Theoretical and empirical research has found that self-esteem generally rises over the course of adulthood and declines in old age (Orth et al., 2010). In addition, people of all ages in satisfying and supportive relationships tend to have higher levels of self-esteem (Orth et al., 2010).

Previous studies have consistently found a positive relationship between social support and psychological well-being among the elderly (Bosworth & Schaie, 1997; Litwin & Shiovitz-Ezra, 2011; Phillips et al., 2008; Poulin et al., 2012; Smith et al., 2004; Zhang & Li, 2011; Jung In-hee, 2012; Kang Mi-hee, 2020). Older adults who realize the time constraints they are under tend to optimize their emotional experience by focusing on maintaining close and warm interpersonal relationships (Carstensen et al., 1999). In addition, as their physical and mental abilities decrease due to aging, social relationships become critical resources not only for emotional support but also for instrumental support such as the provision of financial and tangible assistance. Previous research has also reported that the elderly tend to depend on intimate relationships with families and friends for informational support (Moon Jin-young & Chung Soon-dool, 2020).

2.2 Social Media Use and Psychological Well-being of the Elderly

The Covid-19 pandemic has affected the way that people communicate. The most obvious changes are that most of us now have less face-to-face, in-person interactions with people outside those that we live with, and we more heavily rely on smart-device applications such as Zoom, Skype, KakaoTalk, LINE, etc. to maintain interpersonal relationships. Therefore, social media that utilize smart devices can be considered a critical method of social interaction that affect the psychological well-being of the elderly.

According to the ICT Development Index (IDI) of 2017 published by the International Telecommunication Union (ITU), Korea ranked second out of 176 countries worldwide (ITU, 2017). In addition, according to the results of a survey conducted by the Pew Research Center, the smartphone ownership rate of Korean adults was 94%, ranking first among 37 countries worldwide (Poushter et al., 2018). In addition, the proportion of households with Internet access in Korea in 2019 was reported as 99.5% (Ministry of Science and ICT & Korea Internet and Security Agency, 2019). Overall, most households and household members in Korea seem to have access to information and communication devices or services (Hwang Nam-hui, 2020).

However, despite this high use of smart devices, there is still a gap in information and communication accessibility. For example, as age increases, access to information decreases. Previous research has consistently reported that there is a significant difference in information literacy depending on generations (Loges & Jung, 2001; Van Dijk & Hacker, 2003; Choi In-ho et al., 2018). According to the results of a 2019 digital information gap survey, the level of digital information use among the elderly is the lowest among the four information-vulnerable classes (i.e. disabled people, low-income class, farmers and fishermen, and the elderly). In particular, competency levels in using digital information is lowest for the elderly (Ministry of Science and ICT & Korea Information Society Agency, 2019).

While the elderly are less likely to be confident in using smart devices and thereby less likely to use social media, previous research has consistently highlighted the positive effects of computer and internet usage on the daily lives of the elderly. As adults enter into older adulthood, the deterioration of their physical abilities can make it more difficult to maintain social connections. Thus, they experience decreasing physical connectedness with friends, family, and community, subsequently experiencing loneliness. Social media may begin to play a more active role in keeping this population socially connected (Madden, 2010). According to Madden's study (2010), many older adults primarily used Facebook, a popular and widespread

social media application, to stay connected with family. Using web-based social media can broaden interpersonal relationships, expand social activities, and improve quality of life along with convenience of information use (Smith, 1999; White, 2000).

However, it is still uncertain as to whether social media can actually improve psychological well-being among the elderly. While some studies have reported positive psychological outcomes stemming from social media use (Jun Hey-jung & Kim Myoung-yong, 2014), others have suggested that social media use does not affect issues such as loneliness and depression linked to the psychological wellbeing of the elderly. For example, Madden's study (2010) found that Facebook users did not differ from non-users when it came to loneliness. In addition, internet use was not a significant predictor of depression and life satisfaction among the elderly (Jeong Kyu-hyoung et al., 2013; Kim & Jun, 2014). These findings show that online interactions may not be able to prevail over offline relationships in terms of providing social support. However, when considering the current social changes that have arisen from the Covid-19 pandemic, it may be necessary to revisit the impact of social media on social connectedness and thereby the psychological well-being of the elderly.

2.3 Demographic Factors Associated with Social Media Use among the Elderly

In addition, studies addressing social media use among the elderly have indicated that gender, age, educational level, and income are significant demographic factors that relate to social media use (Joo Kyung-hee et al., 2018; Jang Young-eun, 2019). For example, male adults are more likely to report higher levels of digital information usage and competency than female adults (Joo Kyung-hee et al., 2018). In addition, previous research has suggested that there is a significant relationship between economic status and digital information access (Jang Young-eun, 2019; Joo Kyung-hee et al., 2018). For family-related factors, type of household composition and number of household members were critical factors that affected digital information access and competency among the elderly. Older adults living alone were shown to be the most vulnerable to the digital information gap (Hwang Hyeon-jeong & Hwang Yong-seok, 2017). Therefore, the present study examines associations between the use of social media and self-esteem of the elderly while controlling for demographic features such as gender, age, income, and number of household members.

RESEARCH METHODS

3.1 Data and Sample

The study analyzed data from the Korean Media Panel Survey collected by the Korea Information Society Development Institute (KISDI). The survey aimed to track the impact of changes in the media environment on the media use behaviors of households and individuals and to analyze their media use behaviors according to demographic characteristics (KISDI, n.s.). The first set of data from the Korean Media Panel Survey was collected in 2010. The study utilized data that were collected in 2018 and 2020. The study utilized information from 1,689 respondents who were aged 65 or older in 2020.

3.2 Measurement

3.2.1. Levels of competency in smart device use

Competency levels using smart devices were measured across 19 factors. These included asking respondents if they were able to use mobile phone messages and instant messengers, and whether they were able to access websites/portals and search for information using search engines such as Google and Naver. In addition, respondents were asked if they were able to use smart devices (e.g. computers and smartphones) for email, mobile banking, online shopping and etc.

Ways of using smart devices were measured differently in 2018 and 2020. In 2018, levels of ability in using smart devices were measured by yes/no questions. In 2020, levels of ability in using smart devices were measured by a 5-point Likert scale (1-strongly disagree to 5-strongly agree). The study aimed to assess changes in usage ability before and after the Covid-19 outbreak. Therefore, respondents who somewhat or strongly agreed to statements of competency for their use of smart devices in 2020 were considered as answering 'yes' to the questions. Levels of competency for the use of smart devices ranged from 0 to 19.

For regression analyses, the variables in competency levels for smart device use were categorized into three groups based on the distribution of raw scores. Respondents who did not know how to use smart devices were categorized into a no-ability group, and those who had 1 to 4 points for their ability to use smart devices were categorized into a low-ability group. Those who had more than 4 points were categorized into a high-ability group.

Changes in competency levels for smart device use between 2018 and 2020 were categorized into three groups. Respondents who reported higher levels of ability in using smart devices in 2020 compared to 2018 were categorized into an 'improved ability' group. Respondents who reported lower levels of ability in using smart devices in 2020 compared to 2018 were categorized into a 'decreased ability' group. Otherwise, they were categorized into a 'sustained ability" group.

3.2.2. Actual usage of internet media

Four items that related to the actual use of internet media services were included in the Korean Media Panel Survey. Respondents were asked if they actually used email, instant messenger, blog, and cloud services. If they used all four types of services, they were given 4-points. If they did not use any of the services, then the score was 0-point.

3.2.3. Self-esteem

Self-esteem was measured across a ten-item self-reported scale, that asked respondents how they evaluated their self-image. Survey respondents indicated how much they agreed with each item using a four-point Likert scale (1-disagree, 2-somewhat disagree, 3-somewhat agree, 4-agree). Cronbach's alpha was 0.72 for the scale of self-esteem.

3.3 **Data Analysis**

A paired sample t-test was conducted to assess if levels of ability in using smart devices and actual usage of internet media services changed between 2018 and 2020.

In addition, ordinary least squares regression analyses were conducted to assess associations between ability to use smart devices, use of internet media, and elderly people's self-esteem. The variables of gender, age, income, and the number of household members were included in the analysis models as control variables. Research models were proven to satisfy the assumptions of regression analyses such as linear relationships, multivariate normality, no multicollinearity, and homoscedasticity.

RESEARCH RESULTS

Results of Descriptive Statistics

Table 1 below shows the characteristics of the respondents. About 60% of respondents were female. More than half of the respondents (56.8%) were aged 75 or older, 16% of respondents were aged between 65 and 69. In addition, more than a quarter of respondents reported they did not have a regular monthly income. About 27% reported that their monthly income was lower than ₩500,000. Only 6% had a monthly income of \(\forall 2,000,000\) or higher. Regarding family composition, more than half of respondents belonged to two-person households consisting of a couple. While about 21% lived alone, 27% belonged to three or more-person households, where two or three generations lived together.

Variables Frequency (%)Female 1020 (60.4)Gender male 669 (39.6)

TABLE 1. Demographic Characteristics of Respondents (N=1,689)

Variables		Frequency	(%)
	65 to 69	268	(15.9)
Age	70 to 74	461	(27.3)
	75 or older	960	(56.8)
	No income	478	(28.3)
	Lower than ₩500,000	468	(27.7)
Monthly income	₩500,000 to ₩1,000,000	315	(18.7)
meome	₩1,000,000 to ₩2000000	330	(19.5)
	₩2,000,000 or higher	98	(5.8)
# of	1 person	350	(20.7)
household	2 people	889	(52.6)
members	3 or more people	450	(26.6)

Table 2 below shows the result of descriptive statistics for key variables including the ability to use smart devices, actual usage of internet media services, and levels of self-esteem among the elderly. Competency in the use of smart devices decreased between 2018 and 2020. The mean value of ability in using smart devices was 2.69 points in 2018 and 2.06 points in 2020.

In contrast, the actual usage of internet media services increased by 0.07 points between 2018 and 2020. While 28% of respondents used an internet media service in 2018, 34% used an internet media service in 2020.

Levels of self-esteem were only measured in 2020. The self-esteem scores ranged from 1.60 to 4.00. The mean value of self-esteem was 2.83.

TABLE 2. Results of Descriptive Statistics for Key Variables (N=1,689)

		In 2020	In 2018
	Mean	2.06	2.69
	Median	0.00	2.00
	Min	0	0
Ability to use Smart Devices	Max	19	19
	SD	3.25	3.89
	Q1	0	0
	Q3	4	4

		In 2020	In 2018
	Mean	0.42	0.35
	Median	0.00	0.00
	Min	0.00	0.00
Use of Internet media services	Max	4.00	4.00
	SD	0.64	0.62
	Q1	0.00	0.00
	Q3	1.00	1.00
	Mean	2.83	-
	Median	2.80	-
	Min	1.60	-
Self-esteem	Max	4.00	-
	SD	0.38	-
	Q1	2.60	-
	Q3	3.10	-

4.2 Changes in Competency Using Smart Devices and the Use of Internet Media Services between 2018 and 2020

A paired sample t-test was conducted to assess if the ability to use smart devices and actual usage of internet media services had changed between 2018 and 2020. The findings suggested that respondents' perceived ability to use smart devices decreased between 2018 and 2020 (t=-8.09, p<0.001). In contrast, respondents tended to use more internet media services in 2020 in comparison to in 2018 (*t*=4.44, *p*<0.001)

TABLE 3. Differences in Competency Using Smart Devices and the Usage of Internet Media Services between 2018 and 2020

		In 2020 (A)	In 2018 (B)	Diff. (A-B)	t (df)
	Mean	2.06	2.69	-0.63	-8.09(1688)***
Ability to use smart devices	SD	3.25	3.89	3.20	
	SE	0.08	0.09	0.08	
	Mean	0.42	0.35	0.06	4.44(1,688)***
Internet media service use	SD	0.64	0.62	0.59	
	SE	0.02	0.02	0.01	

^{*}p<.05; **p<.01; ***p<.001

4.3 Relationships between Competency Using Smart Devices, the Use of Internet Media Services, and Self-Esteem among the Elderly

Ordinary least-squares regression analyses were conducted to assess how respondents' competency in using smart devices and their actual usage of internet media services were associated with their levels of self-esteem. Findings show that the elderly's competency in using smart devices was highly related to their self-esteem. Elderly people who were highly able to use smart devices in 2018 were more likely to report high levels of self-esteem than those who were unable to use smart devices. In addition, those who improved their ability to use smart devices between 2018 and 2020 reported higher levels of self-esteem in 2020. After the Covid-19 pandemic, social activities outside the home became very limited, especially for the elderly. Therefore, smart devices based on the internet became a more important tool for social connection. This finding may suggest that ability to use smart devices such as smartphones, laptop computers and etc. can be an important skill to maintain psychological well-being for many older people (see Table 4).

In addition, income and number of household members were significantly associated with self-esteem levels among the elderly. Respondents with higher income levels reported higher levels of self-esteem. In addition, elderly people living alone had lower self-esteem than those living with other family members (see Table 4).

Table 5 below shows the findings of the analysis model which included actual use of internet media services as a key variable to predict the self-esteem of the elderly. The result shows that elderly people who used more internet media services in both 2018 and 2020 reported higher levels of self-esteem. This finding suggests that the use of internet media services can have a positive effect on self-esteem. The use of Internet media services seems to be related not only to the functional capacities of older people but also to their psychological well-being.

In addition, age and number of household members were significant variables relating to self-esteem among the elderly. The younger respondents were, the higher the levels of reported self-esteem. In addition, elderly people living alone tended to report lower levels of self-esteem than those living with other family members (see Table 5).

TABLE 4. The Effect of Competency Using Smart Devices on Self-Esteem (Model 1)

			Model 1	
Variables		В	SE	t
(Constant)		2.82	0.14	19.74***
Gender (0=male)		-0.02	0.02	-0.83
Age		<-0.01	<0.01	-1.33
Monthly Income		0.02	0.01	2.02*
# of household members	2 people	0.08	0.03	3.01**
(0=1 person)	3 people	0.06	0.03	2.23*
Ability to use smart devices in 2018	Low-ability	0.12	0.03	4.55***
(0=No-ability group)	High-ability	0.21	0.04	5.93***
Changes in the competency for	Increased	0.11	0.03	4.07***
smart device use (0=Sustained)	Decreased	-0.05	0.02	-1.88
F(df)		14.32(9, 1679)***		
\mathbb{R}^2		0.07		
adjusted R ²			0.07	

^{*}p<0.1; *p<.05; **p<.01; ***p<.001

TABLE 5. The Effect of Internet Media Service Use on Levels of Self-Esteem (Model 2)

			Model 2	
Variables		В	SE	t
(Constant)		3.01	0.13	22.94***
Gender (0=male)		-0.01	0.02	-0.27
Age	Age		<0.01	-2.69 [*]
Monthly Income	Monthly Income			1.89 [†]
# of household members	2 people	0.08	0.03	3.12**
(0=1 person)	3 people	0.06	0.03	2.17*
Use of internet media services	In 2018	0.04	0.02	2.01*
Ose of internet media services	In 2020	0.07	0.02	3.96***
F(df)		16.77(7,1681)***		
\mathbb{R}^2		0.07		
adjusted R ²			0.06	

^{*}p<0.1; *p<.05; **p<.01; ***p<.001

Table 6 below shows the findings of the regression analysis, including competency in using smart devices and use of internet media services as key predictors of self-esteem.

Levels of self-esteem were related to competency in using smart devices and actual use of internet media services. In particular, respondents who were able to use smart devices in 2018 had higher levels of self-esteem than those who were not able to use smart devices. In addition, the improvement in competency levels for use of smart devices had a positive effect on self-esteem among the elderly. Respondents who experienced improvements in competency levels for smart device use during the two years reported higher self-esteem than those who did not (b=0.09, p<0.01).

In addition, actual use of social media services was related to levels of self-esteem at a statistically significant level (p<0.05). Elderly people who used more internet media services had higher levels of self-esteem.

Among the control variables, the number of household members was significantly related to levels of self-esteem. Elderly people living alone were likely to report lower levels of self-esteem than those living with other family members. While previous studies suggested a negative correlation between age and self-esteem in old age (Orth et al., 2010), the variable of age was not a significant predictor of self-esteem after controlling for the ability to use smart devices in the present study (see Table 6).

TABLE 6. The Effect of Competency in Using Smart Devices and the Use of Internet Media Services on Levels of Self-Esteem (Model 3)

	Model 3			
Variables		В	SE	t
(Constant)		2.78	0.14	19.40***
Gender (0=Female)	Gender (0=Female)		0.02	-0.66
Age	Age		<0.01	-0.97
Monthly Income	Monthly Income		0.01	1.62
# of household members	2 people	0.07	0.03	2.91**
(0=1 person)	3 people	0.06	0.03	2.09*

		Model 3		
Variables		В	SE	t
Ability to use smart devices in 2018	Low-ability	0.09	0.03	3.20**
(0=No-ability)	High-ability	0.13	0.05	2.73****
Changes in ability to use smart	Increased	0.09	0.03	3.46**
devices (0=Sustained)	Decreased	-0.02	0.03	-0.84
Use of internet media services	In 2018	0.02	0.02	0.85
Ose of internet media services	In 2020	0.05	0.02	2.51*
F(df)		12.53(11, 1677)***		
R^2		0.08		
adjusted R ²		0.07		

[†]p<0.1; ^{*}p<.05; ^{**}p<.01; ^{***}p<.001

CONCLUSION

5.1 Review of the Research Questions

The present study assessed how levels of competency in smart device use and actual use of social media services were associated with psychological well-being among the elderly. The study utilized data collected in 2018 and 2020, which included time points before and after the Covid-19 outbreak. The Covid-19 pandemic has affected the way that people communicate. The most obvious changes are that most of us now have fewer face-to-face interactions with others, and rely more heavily on smart device applications to maintain interpersonal relationships. Therefore, social media that utilize smart devices can be considered as a critical method of social interaction, which is commonly known as a significant predictor of psychological well-being.

Despite prevailing access to internet media, many older people are not familiar with using smart devices and social media services. Furthermore, previous studies have provided inconsistent findings about the effect of internet media use on the psychological well-being of the elderly. While some studies suggest that the use

of internet media services improves psychological well-being among the elderly by helping them maintain and even expand their social networks, other studies indicate that use of social media does not directly affect psychological well-being and that the elderly still significantly prefer intimate relationships with their friends and family members based on face-to-face interactions.

The present study assessed if there was a significant change in competency levels in smart device use and the use of internet media services before and after the Covid-19 outbreak. In addition, it assessed whether the ability to use smart devices and the use of internet media services affected levels of self-esteem among the elderly.

5.2 Key Findings of the Study

The main findings of the study are as follows. First, more older people used internet media services in 2020 in comparison to 2018. In addition, the elderly used more types of internet media services in 2020 in comparison to 2018. This suggests that after the Covid-19 outbreak, the use of internet media services seemed to be a more essential part of daily life, even for older generations. However, competency levels in using smart devices have not improved since 2018.

Secondly, the ability to use smart devices and actual use of internet media services were significant predictors of self-esteem among the elderly. Elderly people who were able to use smart devices tended to use more internet media services and reported higher levels of self-esteem than those who were not. This finding is consistent with previous research, indicating the positive effects of social media use in overcoming loneliness, relieving stress, and raising feelings of control and self-efficacy among the elderly (Leist, 2013).

In addition, the study found that older adults living alone were the most vulnerable population for social media access as well as psychological well-being. However, even after controlling for the number of household members, competency levels in using smart devices and using internet media services were still significant predictors of self-esteem. When considering possible social isolation among elderly people living alone, the use of social media can be critical in developing and maintaining social relationships. Improvements in competency levels for use of smart devices and support for using social media could be a good alternative to increase social interactions among the elderly living alone, thereby improving their psychological well-being.

Furthermore, age was not a significant predictor of self-esteem when controlling for competency in using smart devices. This finding suggests that feelings of self-efficacy combined with smart device and social media use rather than age could be a key factor affecting self-esteem.

Overall, the study found that smart device and social media use had a positive effect on psychological well-being among the elderly. Social services that help the elderly to understand information and communication technology, and to have favorable attitudes towards social media, have been expanding in the community. The findings suggest the potential positive impact of such services on daily life for the elderly. Given the increasing number of elderly people living alone, services encouraging them to use social media would be a promising alternative to improve social connections.

5.3 Limitations of the Study and Implications for Further Research

Although this study provides meaningful findings about smart device and internet media use among the elderly, it has several limitations. Firstly, the Korean Media Panel Survey that was utilized for the present study did not provide concrete information about social networks or social support among the elderly. Therefore, it is still uncertain if social media use can expand or strengthen social relationships that provide emotional support as well as tangible services for the elderly. In addition, while the use of internet media services has increased, competency in using smart devices decreased after the Covid-19 outbreak. This may be due to inconsistencies in the measurement of competency levels for smart device use in 2018 and 2020. It is also possible that more frequent use of smart devices for social media may help the elderly more realistically assess their own abilities. Also, since respondents grew older by two years, their functional capacities may have declined. Further study will be necessary to understand changes in social media use in old age. In addition, previous studies on social networks and social support for the elderly have been focused on social relationships that are based on

face-to-face interactions. Given the increasing use of social media among the elderly, future research should be conducted to evaluate how online and offline social relationships interact in individuals'social networks.

REFERENCES

- Bosworth, H. B., & Schaie, K. W. (1997). The relationship of social environment, social networks and health outcomes in the settle longitudinal study: Two analytical approaches. Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 52B, 197-205.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. American Psychologist, 54, 165-181.
- Choi, I. H., Yum, J. Y., Kim, R. W., & Jeong, S. H. (2018). Effects of income, age, and need for cognition on digital media skills and new media literacy. Journal of Cybercommunication Academy Society, 35(2), 181-221.
- Hwang, H. J., & Hwang, Y. S. (2017). Gaps and reasons of digital divide within the elderly in Korea: Focusing on household composition. Social Science Studies, 24(3), 359-386.
- Hwang, N. H. (2020). Older adults and the digital divide: Current conditions and policy implications. Sejong: Korea Institute for Health and Social Affairs.
- ITU. (2017). ICT development index 2017 (IDI 2017 Rank). Retrieved July 25, 2021 from http://www.itu.int/net4/ITU-D/idi/2017/index.html
- Jang, Y. E. (2019). The influence of the digital divide in elderly's traits. Journal of the Korea Society of Computer and Information, 24(2), 209-215.
- Jeong, K. H., Yun, J. H., & Kim, J. S. (2013). The effects of internet utilization on the life satisfaction of the elderly: The mediating effect of social activity. Korean Journal of Social Welfare Studies, 44(2), 357-382.
- Joo, K. H., Kim, D. S., & Kim, J. H. (2018). Analysis of factors influencing digital divide on elderly and difference of gender. Social Welfare Policy, 45(2), 95-121.
- Jun, H. J., & Kim, M. Y. (2014). The longitudinal effects of internet use on depression in old age. Korean Journal of Social Welfare Research, 42, 187-211.
- Jung, I. H. (2012). A study on self-esteem and influencing factors of adults by life cycle: Comparing of young, middle-aged and elderly. Crisisonomy, 8(6), 231-247.
- Kang, M. H. (2020). A study on social support and happiness on old age: Focusing on gender difference. Korea Journal of Social Quality, 4(2), 47-70.
- Kim, M. Y., & Jun, H. J. (2014). The relationships among IT use, satisfaction with IT use

- and life satisfaction of Korean older adults. Journal of Asian Regional Association of Home Economics, 21(4), 167-178.
- Korea Information Society Development Institute (n.d.). Korea media panel survey statistics. Retrieved June 25, 2021 from https://stat.kisdi.re.kr/kor/contents/ContentsList.html
- Lee, S. Y., & Yeo, K. H. (2020). A practical approach to improve the emotional and psychological status of the low-income seniors with hearing impairment: The effects of horticultural activities on depression, life satisfaction, and self-esteem. Korea Journal of Social Quality, 4(4), 29-56.
- Leist, A. K. (2013). Social media use of older adults: A mini-review. Gerontology, 59, 378-384.
- Litwin, H., & Shiovitz-Ezra, S. (2011). Social network type and subjective well-being in a national sample of older Americans. The Gerontologist, 51(3), 379-388.
- Loges, W. E., & Jung, J. Y. (2001). Exploring the digital divide: Internet connectedness and age. Communication Research, 28(4), 536-562.
- Madden, M. (2010). Older adults and social media. Retrieved July 25, 2021 from https://www.pewresearch.org/internet/2010/08/27/older-adults-and-social-media/
- Ministry of Science and ICT, & Korea Information Society Agency. (2019). 2019 Digital information gap survey. Sejong: Ministry of Science and ICT: Korea Information Society Agency.
- Moon, J. Y., & Chung, S. D. (2020). Strengthening information access for the elderly: Focused on information media network analysis by age and type of information for elderly in Seoul. Health and Social Welfare Review, 40(2), 283-320.
- Orth, U., Trzesniewski, K. H., & Robins, R. W. (2010). Self-esteem development from young adulthood to old age: A cohort-sequential longitudinal study. Journal of Personality and Social Psychology, 98(4), 645-658.
- Phillips, D. R., Siu, O. L., Yeh, A. G. O., & Cheng, K. H. C. (2008). Informal social support and older persons' psychological well-being in Hong Kong. Journal of Cross-Cultural *Gerontology*, 23, 39-55.
- Poulin, J., Deng, R., Ingersoll, T. S., Witt, H., & Swain, M. (2012). Perceived family and friend support and the psychological well-being of American and Chinese elderly persons. Journal of Cross Cultural Gerontology, 27, 305-317.
- Poushter, J., Bishop, C., & Chwe, H. (2018). Social media use continues to rise in developing countries but plateaus across developed ones. Pew Research Center. Retrieved July 25,

- 2021 from https://www.pewresearch.org/global/2018/06/19/social-media-use-continues-t o-rise-in-developing-countries-but-plateaus-across-developed-ones/#table
- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- Smith, A. E., Sim, J., Scharf, T., & Phillipson, C. (2004). Determinants of quality of life amongst older people in deprived neighbourhoods. Ageing & Society, 24, 793-814.
- Smith, C. A. (1999). Family life pathfinders on the new electronic frontier. Family Relations, 48(1), 31-34.
- Trzesniewski, K. H., Donnellan, M. B., & Robins, R. W. (2003). Stability of self-esteem across the life span. Journal of Personality & Social Psychology, 84, 205-220.
- Van Dijk, J., & Hacker, K. (2003). The digital divide as a complex and dynamic phenomenon. The Information Society, 19(4), 315-326.
- White, K. (2000). The communication of social support within an online community for older adults: A qualitative analysis of the Senior Net community. Qualitative Research Reports in Communication, 1(2), 33-43.
- Zhang, B., & Li, J. (2011). Gender and marital status differences in depressive symptoms among elderly adults: The roles of family support and friend support. Aging & Mental Health, 15(7), 844-854.

포스트 코로나 시대에 ICT 활용 역량이 노인의 심리적 복지에 미치는 영향 : 노인의 자아존중감을 중심으로

원지영

강남대학교 사회복지학부 교수

본 연구는 스마트 기기 사용 능력과 소설 미디어 서비스의 사용 수준이 노인의 지존감에 어떠하 영향을 미치는지 평가하고자 하였다. 코로나19(Covid-19) 대유행이 계속되고 있는 상황임을 고려할 때 스마트 기기를 사용한 사회적 상호작용은 그 어느 때보다 노인의 심리적 복지와 밀접한 관련이 있을 것으로 유추된다. 이에 본 연구는 한국정보사회발전연구원(KISDI)이 2018년과 2020년에 수집한 한국 미디어 패널 조시를 활용하여 노인의 스마트 기기 활용 능력과 자존감 사이의 관계를 살펴보았다. 연구 결과에 따르면, 스마트 기기를 사용할 수 있는 노인이 더 많은 인터넷 미디어 서비스를 이용하는 경향 이 있었고, 자이존중감의 수준 역시 높은 것으로 나타났다. 특히 2018년과 2020년 사이 스마트 기기 활용 능력이 항상된 것으로 보고하 응답자들의 경우, 자존감 수준이 정체되거나 감소하 응답자들에 비하여 자존감의 수준이 유의미하게 높은 것으로 나타났다. 또한, 연구 결과는 독거노인의 경우 소설 미디어에 대한 접근성이 낮고, 심리적인 건강 측면에서도 취약하다는 것을 보여주었다. 이러한 연구 결과는 스마트 기기 사용 능력을 향상시키고 소셜 미디어 활용을 도울 수 있는 노인 대상 사회서비스 제공이 필요함을 시시한다. 즉 사회적 관계 면에서 스마트 기기 활용과 소셜 미디어 사용이 취약한 노인의 심리적 복지를 향상시킬 수 있는 좋은 대안이 될 수 있음을 시시한다.

주제어: 심리적 복지, 소셜 미디어, 인터넷 미디어, 스마트 기기. 노인. 자아존중감