

# Factors Affecting the Self-Esteem of Single Households from Low-Income Families Aged 50-60 years: Structural Equation Model Analysis

Young-Seol Yu<sup>1</sup>, Doh-Hee Lee<sup>2</sup>, Seon-Rye Kim<sup>3\*</sup>

<sup>1</sup>Teacher, Suwon High School for Agricultural Sciences

<sup>2</sup>Lecturer, Dept. of Business Administration, Chungnam National University

<sup>3</sup>Professor, Dept. of Healthcare Management, Youngsan University

## 50-60대 저소득층 1인 가구의 자존감에 미치는 영향요인 : 구조방정식모형 분석

유영설<sup>1</sup>, 이도희<sup>2</sup>, 김선예<sup>3\*</sup>

<sup>1</sup>수원 농생명과학고등학교 교사, <sup>2</sup>충남대학교 경영학부 강사, <sup>3</sup>영산대학교 의료경영학과 교수

**Abstract** This study was conducted to verify the factors affecting self-esteem of the 50-69 aged with low income in single person households. The subjects were 233 single households in the 50-69 aged low income from the 2019 welfare panel data provided by the Ministry of Health and Welfare. The dependent variable was defined as self-esteem, and independent variables were relationship satisfaction and life satisfaction. Data analysis was carried out by using SEM analysis. As a result, relationship satisfaction did not have a direct effect on self-esteem, with a low value (path coefficient =0.24). However, relationship satisfaction positively influenced life satisfaction (path coefficient =0.71), and life satisfaction positively influenced the self-esteem (path coefficient =0.46). Thus life satisfaction between relationship satisfaction and self-esteem had a mediator effect on self-esteem with 0.32 value. Therefore, establishing the strategy which supports poor single person households, policy makers should consider methods improving relationship satisfaction and life satisfaction.

**Key Words** : Single person Household, Convergence study, Life satisfaction, Self-esteem, Relationship satisfaction, SEM

**요약** 본 연구는 50-69세의 저소득 1인 가구를 대상으로 그들의 자존감에 미치는 영향요인을 확인하기 위하여 시행되었다. 분석대상은 보건복지부에서 제공하는 2019년 복지패널자료로부터 50-69세 저소득 1인 가구에 해당하는 233명이었다. 연구방법은 자존감을 종속변수로 하고, 관계만족도와 생활만족도를 독립변수로 정의한 후, 구조방정식 모형을 이용하여 분석하였다. 분석결과, 관계만족도는 경로계수 0.24로 자존감에 직접적으로 영향을 나타내지 않았다. 그러나, 관계만족도는 경로계수 0.71로 생활만족도에 긍정적 영향을 주었고, 생활만족도는 경로계수 0.46으로 자존감에 유의미하게 긍정적 직접영향을 나타내었다. 또한 생활만족도가 관계만족도와 자존감에 경로계수 0.32로 매개효과를 미치고 있는 것으로 나타났다. 그러므로, 열악한 1인 가구를 지원하는 전략을 세울 때, 정책입안자들은 관계만족도와 생활만족도를 개선시키는 방법을 고려해야 할 것이다.

**주제어** : 1인 가구, 융합 연구, 생활만족도, 자존감, 관계만족도, 구조방정식모형

\*Corresponding Author : Seon-Rye Kim(sjsanj@hanmail.net)

Received May 18, 2021

Accepted August 20, 2021

Revised July 13, 2021

Published August 28, 2021

## 1. Introduction

The UN recently promulgated a new age category. According to new age classification announced by the UN, below 17 years old is minors, 18~64 years old is young, 65~79 years old is middle-aged, 80~99 years old is elderly, and 100 years old and over are classified as long-lived old people. In particular, the countermeasure for change might be emphasized as the rate of increase in people aged 65 and older grew [1].

Traditionally, middle-aged is interpreted in the dictionary as “an intermediate transition period in humans entering adulthood just before old age begins”. In other words, at the point of intermediate transition in life, the past time and uneasy hopes for the future to unfold are the weight of life to bear in the middle ages [2]. Along with the aged society, the increase in the number of poor elderly people is becoming a social problem. Also, the increase in the number of elderly people living alone and their low quality of life have become big problem for the social safety net. The 50-69 aged started to understand the age old people at the time when they would continue their lives with many conflicts. The 50-69 aged have a turbulent social and cultural environment of the time they have experienced with the existing middle-aged, and their own culture has also been newly established until the current conscious year [3]. A previous study suggested that as middle-aged, the time to look back on life, one should think about what the essence of happiness is. In particular, it tells us what we do and what we pursue for the pursuit of happiness in our daily life, and the thoughts on the nature of life underlying it, and the period of the middle-aged. Here, happiness may be the happiness you feel when you are with someone, and there may be the happiness that comes from the freedom of being alone [4].

Until now, many studies have been conducted

in the elderly population and to diagnose the satisfaction of life in the daily life of the elderly and to find a plan [5-18]. However, most of these studies focused on the approach to factors influencing life satisfaction for the elderly over 65 years old. Therefore, this study was the first research that analyzed the factors influencing the self-esteem of 50-69 aged people who are preparatory generation before entering the elderly population in single person households with low income.

Life satisfaction is a subjective and complex emotion that is influenced by an individual's psychological and environmental factors and life history including the past and present dimensions [6,19,20]. Kimura et al. confirmed that improvement of the level of daily life performance ability of the elderly is the starting point for improving life satisfaction, and emphasized that the improvement of the level of daily life performance ability itself is meaningful. In other words, considering that the ability to perform daily life is an important factor to increase life satisfaction. The satisfaction of individual's life is result that it plays an important mediating role for self-esteem [19].

As concerning the demographic structure of Korea, we analyzed the factors influencing the self-esteem of the new middle-aged of single households with low income to prepare for their better elderly life. In other words, 50-69 aged people would shortly become old people. However they are the generations who don't get sufficient social support for low-income groups. Therefore, we started this study from the diagnosis of life satisfaction and self-esteem in the 50-69 aged single person households.

For the analysis, using the 2019 Welfare panel data from Ministry of Health and Welfare, low income single person households in the 50-69 aged were selected as a sample. The low income means below a quarter of monthly income. In particular, considering that subjects are the

single-person households, we defined relationship satisfaction as a factor influencing on self-esteem defined in the welfare panel data, and life satisfaction as a mediator variable. In detail, the diagnostic factor for the perception of relationship satisfaction as a single member household was used as an independent variable, self-esteem was used as a dependent variable, and an analysis of the mediating effect of life satisfaction between relationship satisfaction and self-esteem was conducted.

## 2. Subjects and Methods

### 2.1 Study Subjects

This study used the 2019 Welfare panel data provided by the Ministry of Health and Welfare. The Welfare panel data consisted of a total of 14,918 samples. We extracted 50 - 69 aged in single-member households among the low-income groups, which were classified by the Ministry of Health and Welfare. Finally, 233 people was extracted as subjects by removing non-response and insincere samples as in Fig. 1. The 2019 Welfare panel survey was authorized by the Ethics Committee of Korea Institute for Health and Social Affairs (G19-015-01), in accordance with the Helsinki Declaration.

Panel Data 14,918
↓
Low income 4,309
↓
50-69 Aged 3,336
↓
Single person household 233

Fig. 1. Flow Chart of Subjects Sampling

### 2.2 Study Methods

#### 2.2.1 Theoretical Model

This study analyzed direct and indirect effect of relationship satisfaction on self-esteem and

mediator effect of life satisfaction on self-esteem in the 50-69 aged in single-member households with low income in South Korea, which was an aged society. A theoretical model was designed as in Fig. 2.

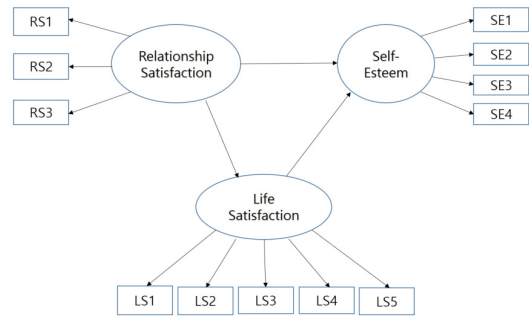


Fig. 2. Theoretical model

#### 2.2.2 Independant variable : Relationship satisfaction

Relationship satisfaction (RS) consisted of relationship satisfaction with family, relationship satisfaction with relatives, and relationship satisfaction with children, and it was measured by 7-point scale.

#### 2.2.3 Mediator variables : Life satisfaction

Life satisfaction (LS) was measured by 5-point scale with 5 items, including health satisfaction, food, clothing and shelter satisfaction, relationship satisfaction with acquaintances, occupation satisfaction, and income satisfaction

#### 2.2.4 Depandant variables: Self-esteem

Self-esteem (SE) consisted of respect for oneself, awareness of the importance of one's opinions, satisfaction with one's own time, and satisfaction with support from surroundings. And self-esteem was measured by 4-point scale.

### 2.3 Statistical Analysis

For the analysis, SPSS was used for overall descriptive statistics analysis and correlation analysis. And structural equation model (SEM)

analysis was conducted to analyze the relationships among relationship satisfaction, life satisfaction and self-esteem in a sample of 233 subjects, using AMOS 18 program. For SEM, we analyzed  $\chi^2$ , Root Mean Square Residual (RMR), Goodness of Fit Index (GFI), Normed Fit Index (NFI) and the comparative fit index (CFI). Good model fit was accepted when CFI was more than 0.90 and RMR values were near zero. The structural causality of the interactions

### 3. Results

#### 3.1 Distribution of personal characteristics

Table 1 showed that female were 67.8%, 50-59 aged people were 73.8%, married status was in exile 44.2%, education level was 41.2% in high school, and 38.2% in college. As for the health level, healthy group was slightly higher with 35.6%, and normal group and unhealthy group with 32.2% respectively.

Table 1. Distribution of personal characteristics

Division		Frequency (%)	Division		Frequency (%)
Sex	Male	75(32.2)	Education	Middle school >=	48(20.6)
	Female	158(67.8)		High school	96(41.2)
Age	50-59	172(73.8)		college	89(38.2)
	60-69	61(26.2)	Religion	Yes	112(48.1)
Marital Status	Spouse	103(44.2)		No	121(51.9)
	Bereavement	65(27.9)	Health	Healthy	83(35.6)
	Divorce	40(17.2)		Normal	75(32.2)
	Single	25(10.7)		Not Healthy	75(32.2)
Total		233(100)	Total		233(100)

#### 3.2 Descriptive statistics of variables

The relationship satisfaction was measured by 7-point scale, life satisfaction was measured by a 5-point scale, and self-esteem was measured by 4-point scale. Although the average value was different according to each measurement scale, the distribution of the average was examined on a basis of the lowest and highest values. Relationship satisfaction is generally distributed at a level slightly above normal 4 points, and the self-esteem is also distributed at an intermediate level. In addition, life satisfaction was also found to be above normal 3 points as in Table 2.

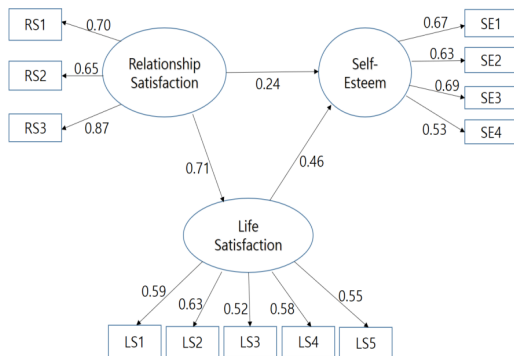
Table 2. Descriptive statistics of variables

Question		Mean (SD)	Score range
Relationship Satisfaction(RS)	Relationship with family(RS1)	4.73(1.35)	1-7
	Relationship with relatives(RS2)	4.15(1.48)	1-7
	Relationship with children(RS3)	4.80(1.51)	1-7
Self-Esteem(SE)	Satisfaction for oneself(SE1)	2.37(0.75)	1-4
	Respect for oneself (SE2)	2.51(0.68)	1-4
	Surrounding' Satisfaction for one's opinions(SE4)	2.58(0.67)	1-4
	Satisfaction for one's own time(SE3)	2.22(0.58)	1-4
Life Satisfaction (LS)	Health satisfaction(LS1)	3.21(0.96)	1-5
	Income satisfaction(LS2)	3.37(0.81)	1-5
	Food, clothing and shelter satisfaction(LS3)	3.31(0.84)	1-5
	Relationship satisfaction with acquaintances(LS4)	3.38(0.78)	1-5
	Occupation satisfaction(LS5)	3.00(0.80)	1-5

### 4 Analysis of Mediator effect of Relationship Satisfaction on Self-Esteem: SEM

On the basis of our theoretical predictions, we obtained a definitive model that could explain self-esteem with relationship satisfaction and life satisfaction perspective. This model appears with three latent variables. Relationship satisfaction did not have a significant effect on self-esteem. However, relationship satisfaction had a significant positive effect of life satisfaction. As a result of the fitness analysis of the model,  $\chi^2=1,181.93$ , which showed an unsuitable result at  $\alpha=0.00$ , but the fitness index such as GFI, NFI and CFI showed 0.9 or more, and RMR was found to be suitable as 0.05. In general, GFI, which is a basic conformity index, is 0.90 or higher, and NFI is 0.90 or higher. It is determined that the CFI is 0.90 or more and the RMR is 0.05 or less. Therefore, GFI of the modified model was 0.93, and NFI was 0.95, which was more than 0.90, so it was suitable, and the RMR was determined to be suitable as 0.05. It confirmed that our model fits well and better explained the factors affecting self-esteem as in Fig. 3.

Our structural model is composed of two independent latent variables (relation satisfaction and life satisfaction) and one level of dependency (self-esteem). The two independent latent variables (relation satisfaction and life satisfaction) were directly correlated. Principal effects were follows. The accessibility of relation satisfaction varied positively with life satisfaction (path coefficient = 0.32). A person with good availability of relation satisfaction could improve life satisfaction. The latent variables of relation satisfaction and life satisfaction directly influenced the self-esteem, with a positive value for relation satisfaction (path coefficient =0.11) and a positive value for life satisfaction (path coefficient =0.48). The latent variable relationship satisfaction is represented by three measured variables which mean relationship satisfaction with family (path coefficient =0.70), relationship satisfaction with relatives (path coefficient =0.65), and relationship satisfaction with children (path coefficient =0.87). The latent variable life satisfaction is represented by five measured variables which mean health satisfaction path coefficient =(0.49), income satisfaction (path coefficient =0.63), food, clothing and shelter (path coefficient =0.52), relationship satisfaction with acquaintances (path coefficient =0.58) and occupation satisfaction (path coefficient =0.55). The latent variable self-esteem is represented by four variables which mean satisfaction for oneself (path coefficient =0.67), respect for oneself (path coefficient =0.63), surrounding' satisfaction for one's opinions (path coefficient =0.69), and satisfaction with one's own time (path coefficient =0.53) as in Table 3.



**Fig. 3. Results of structural equation model (SEM) analysis. Note: Goodness-of-fit indices in the model:  $\chi^2 = 1181.93$ ;  $p = 0.00$ ; normal fit index = 0.94; comparative fit index (CFI) = 0.95; root mean square residual (RMR) = 0.05; goodness of fit = 0.93**

According to the research model, we confirmed that relationship satisfaction did not have a direct effect on self-esteem, with a low value (path coefficient =0.24). However, relationship satisfaction positively influenced life satisfaction (path coefficient =0.71), and life satisfaction positively influenced the self-esteem

(path coefficient =0.46). Thus life satisfaction between relationship satisfaction and self-esteem had a mediator effect on self-esteem with 0.32 value. And life satisfaction could be explained by health satisfaction (path coefficient =0.49), income satisfaction (path coefficient =0.63), food, clothing and shelter (path coefficient =0.52), relationship satisfaction with acquaintances (path coefficient =0.58) and occupation satisfaction (path coefficient =0.55). Also self-esteem could be explained by satisfaction for oneself (path coefficient =0.67), respect for oneself (path coefficient =0.63), surrounding' satisfaction for one's opinions (path coefficient =0.69), and satisfaction with one's own time (path coefficient =0.53) as in Table 4.

**Table 3. Analysis results of measured variables**

Route		E.	St.E.	S.E.	CR
RS 1	←	1.00	.70		
RS 2	←	.814	.65	.11	5.99**
RS 3	←	1.16	.87	.19	6.18**
SE 1	←	1.00	.67		
SE 2	←	.86	.63	.12	7.27**
SE 3	←	.94	.69	.12	7.62**
SE 4	←	.88	.53	.09	5.27**
LS 1	←	1.00	.59		
LS 2	←	1.09	.63	.18	5.81**
LS 3	←	.93	.52	.17	5.30**
LS 4	←	.97	.58	.17	5.59**
LS 5	←	.93	.55	.17	5.42**

\*(p<0.05), \*\*(p<0.01), E.(Estimate), St. E.(Standardized Estimate), S.E.(standard error), CR(critical ratio), RS(Relationship Satisfaction), SE(Self-Esteem), LS(Life Satisfaction)

**Table 4. Path coefficients**

Route	Estimate	Standardized Estimate	S.E.	CR
Relationship satisfaction → Self-esteem	.11	.24	.07	1.56
Relationship satisfaction → Life satisfaction	.32	.71	.06	4.94**
Life satisfaction → Self-esteem	.48	.46	.17	2.74*

\*\*(<math>p</math><0.01), S.E.(standard error), CR(critical ratio)

## 4. Discussion

As republic of Korea is an aged society in 2020, it is compelling to pay more attention to welfare policies at the social and national level for the elderly population. This study was started to diagnose the problem of aged society to be dealt with. As concerning the demographic structure of Korea, we analyzed the factors influencing the self-esteem of the new middle-aged of single households with low-income to prepare for their better elderly life. For the analysis, the 2019 welfare panel data provided by the Ministry of Health and Welfare was used. From a panel sample of 14,918 people, 233 people in single member household 50-69 aged people with low income, classified by the Ministry of Health and Welfare, were selected as subjects. Using SEM, relationship satisfaction and life satisfaction were defined as latent independent variables influencing self-esteem. Self-esteem was defined as a latent dependent variable. GFI of our model was 0.93, and NFI was 0.95, and RMR was 0.05. It confirmed that our model fits well and better explained the factors affecting self-esteem.

As a result of AMOS, the relationship satisfaction didn't have direct effect on self-esteem. However, relationship satisfaction directly affected life satisfaction, and life satisfaction directly affected self-esteem. Thus relationship satisfaction had a significant effect based on the mediator effect of life satisfaction. That is, self-esteem could be predicted by evaluating life satisfaction. So, self-esteem could be improved by enhancing life satisfaction.

The targets of this study were middle-aged (50-69 aged) single member household. Hence, self-esteem for them can be interpreted as a rather sensitive feeling. And considering single-member households, the meaning of family relationship can be interpreted as not significant. As they have already become

accustomed to living alone, and there will be no room to give meaning to being a family. Therefore, this result showed that what they needed was basic factors such as economic power and health, which is more realistic than the satisfaction of family relationships. Namely, it meant that extremely realistic living conditions such as enough income, health, and occupation are important influencing factors on self-esteem. These results may not be simply because they are low-income or because they are middle-aged in their 50s and 60s. In other words, because the study subjects were single-member households, good family relationship could be considered as an excessive condition in their living environment. This results are similar to Kim' research that emphasized the need for a new perception of the meaning of the family and the problem of old age as nowadays more than 50% of the elderly in their 50s or older live alone. Kim emphasized that when people entered their 50s age, the weight of life they feel made a turning point in their perception of life [21]. Han presented a successful diagnosis of aging level and a plan for successful management of aging from the perspective of the life cycle of the new middle-aged as they enter an aged society [22]. Lee et al. emphasized the impact of the positive mind of the new middle-aged on their willingness to re-employment. In other words, in order to enhance the re-employment of the new middle-aged, the importance of self-confidence and the positive attitude of the new middle-aged were emphasized [23].

The findings of this study should be interpreted in light of its limitations. Due to the cross-sectional design of this study, causality cannot be determined. The information was collected by self-report measure, therefore, our findings did not help in our understanding of those peoples who did not respond to the questionnaire.

As can be seen from a series of studies,

interest in the new middle-aged will continue, indicating that they need to be prepared to respond to various problems as they enter the elderly population in the future. Therefore, various preparations and efforts should be sought to improve the life satisfaction of the new middle-aged for the comfortable middle-aged and old-aged in the future.

## 5. Conclusions

This study started from the diagnosis of life satisfaction and self-esteem in the 50s and 60s living alone. Using the 2019 welfare panel data provided by the Ministry of Health and Welfare, 233 people from the panel of 14,918 people were selected as targets in 50-69 aged single member households with low income. We conducted structural equation model analysis for assessing association between "relationship satisfaction", "self-esteem" and "life satisfaction". "Relationship satisfaction" was defined as an independent variable, which can be an important factor influencing self-esteem. A series of relationships was defined as a parameter, enhancing the importance of "life satisfaction" at the individual level. The analysis results are as follows. First, distribution by characteristics of respondents was 67.8% in female, 73.8% in their 50s, 44.2% in exile, 41.2% in high school, and 38.2% in college. In terms of health level, 'healthy' was slightly higher with 35.6%, and normal and unhealthy with 32.2% respectively. Second, correlation analysis between variables showed a significant correlation overall. Finally, the result of SEM showed that "relationship satisfaction" didn't have direct effect. However, "life satisfaction" had a significant mediating effect on self-esteem. In other words, the result indicated that what they needed for enhancing their self-esteem was basic factors such as extremely realistic economic power and health before family

relocation.

In conclusion, it is necessary to prepare more specific support plans for the increasing number of elderly and single-person households with low income. In addition, I would like to emphasize the necessity of a leading institutional countermeasure against the aging of the new middle-aged population in the future.

## REFERENCES

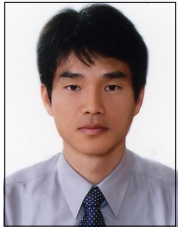
- [1] United Nation. (2020). Overview of Population Ageing in North-East Asia: Trends and socio-economic implications, *Annual Report*. <https://www.un.org/>
- [2] K. S. Kang (2019). *Middle-aged Reading*. Seoul : Uldokook. [https://bookdb/book\\_detail.nhn?bid=15007612](https://bookdb/book_detail.nhn?bid=15007612)
- [3] K. S. Park, H. J. Seo & Y. S. Ahn. (2020). Analysis on the Educational Needs of Employment Competencies of New Middle-aged Job Seekers. *The Journal of Vocational Education Research*, 39(6), 19-37 Doi: 10.37210/JVER.2020.39.6.19
- [4] T. K. Fertelli, & T. Deliktas. (2020). A study on the relationship between perceptions of successful aging and life satisfaction of Turkish elderly people. *Perspectives In Psychiatric Care* 56, 386-392. DOI: 10.1111/ppc.12446
- [5] J. H. Jeong & J. M. Lee. (2017). Study on factors of Life Satisfaction for the Elderly women who Reside in the Rural Area -With focus on elderly women living in "K". *Asia-pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology* 7(3), 163-171. DOI: 10.14257/AJMAHS.2017.03.80
- [6] E. Diener & M. E. Seligman. (2002). Very happy people, *Psychological science*, 13(1), .81-84. Doi: 10.1111/1467-9280.00415
- [7] J. Liu, W. Wei, Q. Peng & C. Xue. (2020). Perceived Health and Life Satisfaction of Elderly People: Testing the Moderating Effects of Social Support, Attitudes Toward Aging, and Senior Privilege. *Journal of Geriatric Psychiatry and Neurology*, 33(3), 144-154. Doi: 10.1177/0891988719866926
- [8] W. B. Kim. (2009). A Study on the Determinants of Life Satisfaction for Elderly Koreans: Focused on Activity Theory and Resource Theory. *Social Welfare Policy* 36(3), 449-470. Doi: 10.15855/swp.2009.36.3.449
- [9] K. S. Choi, R. Stewart, & M. Dewey. (2013). Participation in productive activities and depression among older Europeans: Survey of Health, Ageing and Retirement in Europe (SHARE). *International Journal of Geriatric Psychiatry*, 28(11), 1157-2265. Doi: 10.1002/gps.3936
- [10] H. K. Cho, M. Y. Lee & G. Y. Uhm. (2014). The Effects of the Instrumental Activities of Daily Living and Depression on the Life Satisfaction of the Rural Elderly. *Family and Environment Research*, 52(6) 617-627. DOI : 10.6115/fer.2014.052
- [11] M. S. Song, A. R. Hong & Y. W. Park (2019). An Analysis of the Depression Prevention of the Elderly Gymnastics Program Based on the KGDS. *The Journal of Humanities and Science* 21, 10(6), 1773-1786. DOI : 10.22143/HSS21.10.6.130
- [12] K. L. Fiori, T. C. Antonucci & H. Akiyama. (2008). Profile of Social Relations among Older Adults: a cross-cultural approach. *Ageing and Society*, 28, 203-231. DOI : 10.1017/S0144686X07006472
- [13] A. Fiske, J. L. Wetherell & M. Gatz. (2009). Depression in older adults, *Annual Review of Clinical Psychology*, 5, 363-389. DOI : 10.1146/annurev.clinpsy.032408.153621
- [14] R. J. Gobbens & M. A. van Assem. (2014). The prediction of quality of life by physical, psychological and social components of frailty in community-dwelling older people. *Quality of life research* 23, 2289-2300. DOI: 10.1007/s11136-014-0672-1
- [15] A. R. Kim. (2015). The Influence of Physical Activity and Depression on Sleep Quality in Community-dwelling Older Adults: A Comparison between Young-old and Old-old. *Journal of Korean Biological Nursing Science*, 17(4), 287-296. DOI : 10.7586/jkbns.2015.17.4.287
- [16] G. Mura, F. Sancassiani, G. M. Migliaccio, G. Collu & M. G. Carta. (2014). The association between different kinds of exercise and quality of life in the long term. Results of a randomized controlled trial on the elderly. *Clinical Practice and Epidemiology in Mental Health*, 10(1), 36-41. DOI : 10.2174/1745017901410010036
- [17] A. Parslow, V. J. Lewis & R. Nay. (2011). Successful Aging: Development and Testing of a Multidimensional Model Using Data From a Large Sample of Older Australians. *Journal of American Geriatrics Society*, 59, 2077-2083. DOI : 10.1111/j.1532-5415.2011.03665.x
- [18] E. S. Shin & Y. C. Cho. (2012). Relationship Between Depressive Symptoms and Physical Function(ADL, IADL) Among the Rural Elderlies. *Journal of the Korea Academia-Industrial Cooperation Society*, 13(1), 201-210. DOI : 10.5762/KAIS.2012.13.1.201
- [19] Y. Kimura, H. Ogawa & A. Yoshihara. (2013). Evaluation of chewing ability and its relationship with activities of daily living, depression, cognitive status and food intake in the community-dwelling elderly. *Geriatrics and Gerontology International*, 13(3), 718-725. DOI : 10.1111/ggi.12006



- [20] Ministry of Health and Welfare. (2019). *Korea Welfare Panel Study*.  
<https://www.koweps.re.kr:442/data/data/list.do>
- [21] M. K. Kim. (2016). A Review for New Recognition on Aging and Families in Age of Single-Household. *Journal of East Social Thoughts*, 19(4), 167-190.  
 DOI : 10.17207/jstc.2016.12.19.4.167
- [22] C. M. Han (2019). Analysis of Factors Affecting Successful Aging in the Neo-middle Ages. *Journal of Governance Studies*, 14(2), 37-62.  
 DOI : 410-ECN-0102-2019-300-001190594
- [23] H. S. Lee & Y. G. Lee. (2019). The Impact of the Middle Age's Positive Psychological Capital to Reemployment. *Journal of Digital Convergence*, 17(5), 33-40. DOI : 10.14400/JDC.2019.17.5.033

### 유 영 설(Young-Seol Yu)

[정회원]



- 2011년 2월 : 충남대학교 이학박사
- 2017년 3월 ~현재 : 수원농생명과학고등학교 교사
- 관심분야 : 체육교육, 체육행정/경영, 육상운동 등
- E-Mail : yssports4u@hanmail.net

### 이 도 희(Doh-Hee Lee)

[정회원]



- 2005년 8월 : 충남대학교 경영학박사
- 2012년 8월 : 충남대학교 특허법무대학원 법학석사
- 2021년 8월 : 공주대학교 사회복지학 박사
- 2021년 8월 : 충남대학교 강사, 한밭대학교 강사
- 관심분야 : 관리회계, 정부 및 비영리회계, 회계윤리
- E-Mail : 2dohee@hanmail.net

### 김 선 예(Seon-Rye Kim)

[정회원]



- 2011년 8월 : 충남대학교 보건학과 (보건학 박사)
- 현재 : 영산대학교 의료경영학과 교수
- 관심분야 : 헬스케어 빅데이터, 보건교육, 보건의료정보학
- E-Mail : sjsanj@hanmail.net