

The Influence of Social Network and Depression on Successful Aging in the Elderly

Yeon-Sook Kim¹, Jin-Hui Cho¹

¹Professor, Department of Nursing, Dongnam Health University, 16328, South Korea

Abstract

Background/Objectives: The purpose of this study was to investigate the relationship between social network, depression and successful aging of elderly people and to identify the factors influencing successful aging of elderly people.

Method/Statistical Analysis: The subjects of this study were 150 elderly people aged 65 and older who live in three cities. The data were collected through structured questionnaire and analyzed using descriptive statistics, t-test, ANOVA, Pearson correlations, Spearman correlations and multiple regression analysis with the SPSS/WIN 21.0 program.

Findings: The results showed that depression was the most influential factor in successful aging of elderly people, followed by social activities, perform parental grandparent role and 74.1% explained successful aging of elderly people. Based on these results, it concluded that the role of social activities, parents and grandparents is critical and the development of related programs is necessary for the elderly to be successfully aged.

Improvements/Applications: This study showed that depression, social activities and the role of parents and grandparents were significant for the successful aging of the elderly. In particular, depression was more influential than social activities and the role of parents and grandparents. Therefore, it found that research is needed to prevent depression in the elderly.

Keywords: elderly, social network, depression, successful aging.

Introduction

According to the National Statistical Office, the average life expectancy in 2013 was 85.06 years for females and 78.51 years for males^[1]. As life expectancy increases, the process of aging must be prolonged and should be approached with an integrated concept of successful aging, including the wisdom aspect, from focusing only on passive responses to decay with age^[2]. Successful aging is the individual's awareness that he has effectively adapted to the physical and functional changes that have accumulated over a long period of time, while at the same time discovering the meaning or purpose of life^[3-4]. Previous studies have shown that

successful aging is not a final state, but a process of adaptation and that old age is not the end of everything, but the successful completion of a lifelong development process by physically, psychologically or socially developing tasks^[5].

Population aging is a recent phenomenon of social change, which is emerging as a significant cause of social problems in Korea and other countries. On the other hand, older people in 21C have stronger desire to retain resources such as economic power and health and to spend old age comfortably and disease-free than existing older people. Because of these changes and diversity, there is increasing interest in how the elderly's social network can successfully raise the level of successful aging and depression is predicted to impede the quality of life of the elderly^[6]. The purpose of this study is to divide the social network of the elderly into the role of parents and grandparents, economic activities and social

Corresponding Author:

Jin-Hui Cho, Department of Nursing, Dongnam Health University.
jhcho@dongnam.ac.kr.

activities and to investigate the effects of variables and depression on successful aging. A social network is a social unit composed of individual social ties [7]. As the attention of the elderly concentrated on families with frequent contact opportunities, satisfaction with their children's relationships and affection with their grandchildren influenced successful aging [8]. Also, the elderly have been shown to harm their life satisfaction as they become psychologically depressed [9] when they become economically depressed [10]. Accordingly, the study was performed assuming that the role of parents and grandparents, economic activities, social activities and depression, which are the social networks of the elderly, will affect the successful aging.

Method

This study is a descriptive research to analyze the effects of the role of parents and grandparents, economic activity, social activity and depression on the successful aging of the elderly.

The subjects of this study were 150 older people over 65 years old who could understand and respond to the study purpose of the elderly living in three cities. The purpose of this study is to identify success factors of aging and to provide primary data for developing nursing intervention program criteria. The specific purpose is as follows. First, the purpose of the study is to identify the difference in successful aging due to the general characteristics of the subject. Second, the purpose of this study is to investigate the effects of the role of parents and grandparents, economic activities, social activities and depression on successful aging.

Successful aging is a condition that is free from illness or disability, maintains proper physical and mental functioning and spends every day actively [11]. In this study, we used a successful aging scale Kim & Shin [12], which developed a scale based on the characteristics of Korean culture. Reliability factor in this study was Cronbach's $\alpha = .95$. The higher the score, the higher the successful aging. In this study, the average score of the questions used for analysis.

The role activity scale was used to measure the role performance of the elderly Song [13]. In this study, the reliability coefficient of Cronbach's $\alpha = .90$.

The economic activities of old age have positive effects such as securing stable income, contributing to social development and confirming self-use, maintaining

health, suppressing social alienation and loneliness, thus improving the level of satisfaction and success in old age [14]. The measures developed by Park & partially used in Kwak's research used [15]. In this study, the reliability coefficient was Cronbach's $\alpha = .93$

Social activity of Old age was measured based on the research of Cheong & Yi [16], which conceptualizes social activities, consisting of hobbies and volunteer activities, which are longer leisure time than other age groups. In this study, the reliability coefficient was Cronbach's $\alpha = .82$.

Depressed of the questionnaire measuring depression is a Korean-type elderly depression test tool (KGDC), which Han [17] reconstructed a total of 30 questions. The questionnaire consists of 10 questions and each question answered on a 4 level Likert scale. In this study, the Cronbach's α coefficient of .89 was relatively good.

Data collection for this study was conducted for four months from November 2014 to February 2015. The self-response method used through structured questionnaires. Collected data were analyzed using the SPSS / WIN 21.0 program as follows. First, the general characteristics of the subjects analyzed using frequency and percentage, mean and standard deviation. Second, t-test and ANOVA were used to identify the differences in successful aging according to the general characteristics of the subjects. Third, Pearson correlation analysis used for the correlation between variables. Fourth, multiple regression was conducted to investigate the effects of the subjects.

Result and Discussion

1. General Characteristics of Subjects and Differences in Successful Aging

[Table 1] shows the difference of successful aging according to general characteristics.

Frequency analysis was performed to examine the demographic characteristics of the study subjects. According to the analysis results, among the total 150 respondents, the number of women was 100 (66.7%) for women and 50 (33.3%) for men. The most common age group was 70s' with 77 people (51.3%). In the marriage, 87 (58.0%) were married (spouse survived) and 63 (42.0%) were 'married alone due to bereavement or divorce.'

In terms of education level, 52 students (34.7%) graduated from elementary school. 82 (54.7%) had a religion and 68 (45.3%) had no religion. There are 73 positives (48.6%) who answered that they are healthier than their peers. In addition, the results of analyzing

the differences in successful aging according to the demographic characteristics of the study subjects showed age ($F = 8.534, p = .000$), marital relationship ($t = 2.307, p = .022$), an education level ($F = 5.527, p = .000$), religion ($t = 3.163, p = .002$) and health ($F = 2.478, p = .047$).

Table 1. General Characteristics of Subjects and Differences in Successful Aging (N=150)

Variables	Categories	n(%)	Successful aging		
			M±SD	F/t	p
Gender	Male	50 (33.3)	3.28±0.88	1.418	.158
	Female	100 (66.7)	3.07±0.84		
Age (year)	60~69	40 (26.7)	3.37±0.79a	8.534	.000
	70~79	77 (51.3)	3.24±0.86a		
	≥ 80	33 (22.0)	2.63±0.72b		
Marital status	Married (Spouse survival)	87 (58.0)	3.28±0.83	2.307	.022
	Other(Divorce and Bereaved)	63 (42.0)	2.96±0.87		
Education	uneducated	10 (6.7)	2.61±0.91d	5.527	.000
	Elementary school	52 (34.7)	2.82±0.71cd		
	Middle school	18 (12.0)	3.29±0.70bc		
	High school	24 (16.0)	3.13±0.72cd		
	≥ College	46 (30.7)	3.96±0.67a		
Religion	Yes	82 (54.7)	3.34±0.99bc	3.163	.002
	No	68 (45.3)	3.83±0.81ab		
Health perception	Very Dissatisfied	8 (5.3)	3.34±0.88	2.478	.047
	Dissatisfied	30 (20.0)	2.91±0.77		
	Average	39 (26.0)	2.79±1.00b		
	Satisfied	47 (31.3)	3.04±1.02b		
	Very Satisfied	26 (17.3)	2.93±0.76b		

2. Correlations among Successful Aging, Perform parental grandparent role, Economic activity, Social activity, Depression.

The correlation between self-efficacy, self-esteem, depression and successful aging is as follows [Table 2].

Successful aging had the largest negative correlation with depression ($r = -.657, p < .01$), followed by social activities ($r = .556, p < .01$) and parent grandparent roles ($r = .457, p < .01$) and economic activity ($r = .301, p < .01$) were positively correlated. That shows that the higher the depression, the less successful aging and the

more successful aging increases as the role of parents, grandparents, economic and social activities increases.

Table 2. Correlations among Successful Aging, Self-Efficacy, Self-Esteem, Aging Anxiety (N=150)

Variables	Perform parental grandparent role	Economic activity	Social activity	Depression
	r (p)	r (p)	r (p)	r (p)
Economic activity	.464(<.001)	1		
Social activity	.592(<.001)	.468(<.001)	1	
Depression	-.003	-.077	-.072	1
successful aging	.457(<.001)	.301(<.001)	.556(<.001)	-.657(<.001)

3. Influencing Factors on Successful Aging.

The effects of self-efficacy, self-achievement and aging anxiety on successful aging are as follows [Table 4].

The effects of age, marital relationship, education level, religion, health and independent variables of grandparents, economic activity, social activity and depression on the successful aging according to demographic characteristics were analyzed. Multiple regression analysis was performed to confirm. It has about 74.1% accountability for the effects of role performance, economic activity, social activity and depression on successful aging. The significance test of the regression coefficient showed that the aging of the parents grandparents (t = 4.150, p <.001), social activities (t = 6.140, p <.001) and depression (t = -13.918, p <.001) was successful. It was found to have a significant effect on it. The standardization coefficient represents the relative influence of each independent variable on successful aging, which is the dependent variable. Depression (= -.645) was the most influential factor, followed by social activities (= .387) and the role of grandparents (= .243) was the most influential. The higher the depression, the less successful aging and the higher the grandparents' role and social activities, the more successful aging.

Table3. Influencing Factors on Successful Aging (N=150)

Variables	B	SE	β	t	p	Tolerance	VIF
(Constant)		.653	3.426.	5.246	<.001		
Age	.035	.008	.005	.613	.541	.552	1.813
Marital status	-.091	.083	-.157	-1.882	.062	.791	1.264
Education	.013	.027	.006	.229	.819	.533	1.875
Religion	.073	.077	.126	1.625	.106	.899	1.112
Perform parentalgrandparent role	.243	.049	.205	4.150	<.001	.536	1.865
Economic activity	-.010	.048	-.009	-.178	.859	.590	1.695
Social activity	.387	.036	.222	6.140	<.001	.462	2.166
Depression	-.645	.050	-.699	-13.918	<.001	.855	1.170

R²=.741, Adj. R²=.727, F=50.515,p<.001, Durbin-Watson=2.156

Discussion

There is increasing interest in how the elderly's social network can raise the level of successful aging and depression is predicted to be a deterrent to the quality of life of the elderly [6]. In addition, the social network reported that the elderly had a significant result on the health status [18]. The purpose of this study was to divide the social network of the elderly into the role of parents and grandparents, economic activities and social activities and to analyze the factors affecting successful aging. In this study, depression was the most significant influence variable for successful aging, followed by social activities and the role of parents grandparents.

Depression was supported by this study because it was predicted as a factor that impeded the quality of life of the elderly, although no previous study found a direct relationship between depression and successful aging [6]. In addition, the study showed that depression affects self-integration as a successful aging partly mediated by the elderly [19]. Social activity is similar to the previous study in which elderly people who participated in social activities of the elderly had higher life satisfaction than those who were not [20]. In other previous studies, the meta-analysis study on factors related to successful aging in Koreans reported that social factors such as family support, social activities, leisure activities and volunteer activities were all significant factors for successful aging [21].

Previous studies have reported that for the emotionally stable retirement life, contact frequency and scope with family and friends who can share fun and difficulty as well as reconciled family are necessary for retirement life [22]. Therefore, the results of this study supported the previous study that parent-grandparent role was a significant influence on successful aging.

Based on the preceding studies, depression, social activities and parent / grandparent roles were analyzed as important factors for the successful aging of the elderly. We need to identify, develop and maintain a social support system that enables this.

Conclusion

This study is a descriptive research to identify the factors of successful aging in the elderly. The results of this study were regression analysis using the role of parents, grandparents, economic activity, social activity and depression as independent variables. As a result,

the factors influencing successful aging were the role of parents and grandparents, social activities and depression, all with 74.1% explanatory power. Depression was the most influential factor for successful aging, followed by social activities and parent/grandparent roles. Among the general characteristics, variables affecting successful aging were age, marital relationship, education level, religion and health. The results of this study showed that depression, social activities and parent/grandparent roles were essential for the successful aging of the elderly. In particular, depression was more influential than social activities and parent/grandparent roles. It found that related studies, such as intervention development, were needed to prevent the depression of the elderly. Also, it found that various opportunities to activate the social activities of the elderly were needed. The more parents and grandparents performed, the higher the level of successful aging. Based on these results, it found that in order to improve the successful aging of the elderly, it is necessary to develop specific educational programs and mediation plans that can lower depression and enhance social activities and role of parents and grandparents.

Ethical Clearance: Not required

Source of Funding: This study was carried out with the support of the research fund of Dongnam Health University.

Conflict of Interest: Nil

References

1. Statistics Korea. 2013 life tables for K1. Statistics Korea. 2013 life tables for Korea [Internet]. Daejeon: Author; 2014 [cited 2015 July 2]. Available from: http://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1B41&conn_path=I2.
2. Lee SL, Cho SH. Aging and wisdom: An integrated conceptualization of successful aging. *Korean Journal of Psychological and Social Issues*. 2007 13(3). 65-87. Available from: <http://www.kpacsi.or.kr/article-index/>
3. Flood M. Successful aging: A concept analysis. *Journal of Theory Construction and Testing*. 2002 6(2). 105–108. Available from: <https://search.proquest.com/openview/59e5c2b77817f9f2a0a55f271f9092f4/1?pq-origsite=gscholar&cbl=11511>
4. Flood M. A mid-range nursing theory of successful aging. *Journal of Theory Construction and Testing*. 2004 9(2). 35–39. Available from:

- <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=1&sid=11079e34-db12-4605-b163-2aba19cda7b1%40pdc-v-sessmgr05>
5. Kim JJ, Cho HI, Cho SR. The relationship between health promotion behaviors, successful aging concept, and acceptant of death attitude among dance program participating elders. *The Korean Journal of Sports Science*. 2013 22(1). 217-231. Available from: <https://www.jssm.org/>
 6. Ann J. A study on perception of successful aging in adult developmental stages[dissertation]. [Busan]: University of Dong-A; 2010. Available from: <http://dl.nanet.go.kr/SearchList.do>
 7. Bae JM. An illustrated guide to medical statistics using SPSS. Seoul: Hannarae 2012.
 8. Suh SR, Choi HJ. Aging Anxiety and Related Factors of Middle-Aged Adults. *Korean Journal of Adult Nursing*. 2013 25(4): 464-472. DOI:<https://dx.doi.org/10.7475/kjan.2013.25.4.464>
 9. Chun JW. The motivation for job performance, job satisfaction and psychological well-being in elderly[dissertation]. [Seoul]: University of Sookmyung Women; 2002. Available from: <http://dl.nanet.go.kr/SearchList.do>
 10. Lasher K.P, Faulkender P.J. Measurement of Aging Anxiety: Development of the Anxiety about Aging Scale. *The International Journal of Aging and Human Development*. 1993 7(4). 247-259. DOI: <https://dx.doi.org/10.2190/1u69-9au2-v6lh-9y11>
 11. Rowe JW, Kahn RL. Successful aging. *The Gerontologist*. 1997 37(4), 433-440. Available from: <https://academic.oup.com/gerontologist/article-abstract/37/4/433/611033>
 12. Kim MH, Lee Shin KR. The Study on the Development of the ‘Successful Aging’ Scale for Korean Elderly. *Journal of the Korea Gerontological Society*. 2005 25(2): 35-52. Available from: <http://scholar.dkyobobook.co.kr/searchExtDownload.laf>
 13. Song HJ. The effects of the elderly’s role performance on Successful Aging-Focused on SOC Coping strategies as meditatots. [dissertation]. [Cheongju]: University of Cheongju; 2009. Available from: <http://dl.nanet.go.kr/SearchList.do>
 14. Kwon JD, Cho JY. A Study of Factors Influencing the Life Satisfaction of the Aged. *Journal of the Korea Gerontological Society*. 2000 20(3). 63-76. Available from: <http://www.tkgs.or.kr/html/?pmode=search>
 15. Kwak MS. A Study on Factors Affecting Successful Aging. [dissertation]. [Seoul]: University of Baptist Theological; 2004. Available from: <http://dl.nanet.go.kr/SearchList.do>
 16. Cheong BE, Yi GH. A Study on the Social Activities Perceived by the Korean elderly. *Journal of the Korea Gerontological Society*. 2009 29(3). 953-970. Available from: <http://www.tkgs.or.kr/html/?pmode=search>
 17. Han OJ. The Effects of everyday strains and personal resources on psychological adjustment of the very old. [dissertation]. [Chung Buk]: Korea National University of Chung Buk; 2002. Available from: <https://www.nanet.go.kr/main.do>
 18. Lee MN. A Study on the effects of the elderly’s social network support on their successful aging[dissertation]. [Seoul]: University of Hanyang; 2014. Available from: <http://dl.nanet.go.kr/SearchList.do>
 19. Moon NS, Nam KM. The Relationship between the Death □eparation of the Aged and Successful Aging -Focusing on Depression and Death Anxiety as Mediators- *Journal of the Korea Gerontological society*. 2008 28(4), 1227-1248. <http://scholar.dkyobobook.co.kr/searchExtDownload.laf>
 20. Park KS. Informal social ties of elderly Koreans. Significant effect on the decline of their quality of life. 2000 34(2). 621-647. http://147.47.106.114/pks0505/pdf/ksocio_34_fall.pdf
 21. Jeong YJ, Yu NY, Kim BA, Shin HJ, Chong YS. A meta-analysis on variables related with successful aging. *Journal of the Korea Gerontological Society*. 2014 34(4).781-797. <http://scholar.dkyobobook.co.kr/searchExtDownload.laf>
 22. Lee MJ, Yang JH. Recognition of successful aging among middle aged women. *Journal of Korean Gerontological Nursing*. 2012 14(2). 79-90. <https://www.jkgn.org/>