保健敎育·健康增進學會誌 第20卷, 第4號(2003. 12)
Journal of Korean Society for Health Education and Promotion
Vol. 20, No. 4, 2003, pp.1-11

Psychosocial Factors and Health Behaviors in Elderly People

Mi-Kyoung Choi
Department of Nursing, College of Mediicne, Kwandong University

CONTENTS

Ⅰ. Introduction

Though good health behaviors of elderly bring positive effects in various aspects, their biophysiological changes make it difficult to perform it as it makes motivation difficult by psychological, physical and social shrinkage. Studies about the factors that affect health behavior of elderly can have important meanings as they stimulate the motivation of the practice.

Reviewing the previous studies about the factors that are associated with health behaviors in the elderly, sociodemographic variables(Oh 1997; Walker et al. 1988) such as sex, age, educational level and marriage, and health variables(Belloc and Breslow 1972; Kim, 2000; Lee, Son, and Nam 1995; Lee and Park 1998; Speak, Cowart, and Pellet 1989) such as physical status, psychological distress, health concern have been emphasized. Compared to this, studies(Eyler et al. 1999; Kaplan et al. 2001) about the relation between heath behaviors and psychosocial factors have been narrowly focused.

Psychosocial factors of elderly can be the important factors in the quality of their life. Especially in our nation where contemporary problems such as rapidly changing social

Corresponding author: Mi-Kyoung Choi, Department of Nursing, College of Mediicne, Kwandong University
522, Naegok-dong, Gangneung-si, Gangwon-do 210-701, Korea
Tel: 033-649-7615, E-mail: mkchoi@home.kwandong.ac.kr

situation, conflicts with younger generation and shortage of social resources are severe, psychosocial loads of the elderly can directly affect various aspects. Among them, ordinary life value that can be influenced by depression due to psychosocial changes with aging is thought to be more important factor than any other psychosocial factors. And also it can affect their health behavior. Munakata(1996) reported that people whose psychosocial deprived feelings are deep, underestimate the value of life, so their health behaviors are also influenced. This tendency can have significant meaning to the elderly.

Based on these backgrounds, this study aims at investigating the effects of psychosocial factors as well as sociodemographic and health factors that may influence the health behavior of elderly, and intends to offer data about stimulating the motivation of practicing the health behavior in the elderly.

II. Subjects and Method

1. Subjects and data collecting

The survey was carried out on a convenience sample of 126 elderly over 65 years of age in a community settings in Gangneung-si for 2 weeks from April 3, 2003 to April 17, 2003.

All subjects were interviewed using semi-structured questionnaire. The contents of the questionnaire included sociodemographic variables(such as age, educational level, family living together, and economic activity), health variables(such as subjectvie health status, difficulty in mobility and chronic disease), psychosocial variables(such as feelings of worthy life, self-esteem and loneliness), and 27-items of health behaviors.

2. Measurements

1) Health behavior

Health behavior was measured by using 27-item questionnaire selected from Saito et al.(1997)'s health-life-behaviors. The items consisted of 3 subgroups; 17-items of health promotion behaviors such as 'Do you have your meals regularly?', 'Are you trying to have a balanced diet?', 'Are you trying to walk as often as you can?', 'Are you trying to get rid of the stress?' etc.; 2-items of illness-avoiding behaviors such as 'Are you trying not to smoke in daily life?', 'Are you trying not to drink too much?'; and 8-items of preventive health behavior such as 'Do you participate in social activities?', 'Do you get a regular health check-up?', 'Do you go to the hospital right away when you think you've got a disease?' etc. For each question, 1 point was given when the answer was 'yes' and no point was given when the answer was 'no'. The higher the score was, the more subjects practiced health behavior. The Cronbach's alpha reliability coefficient was .739 in this

study.

2) Feelings of worthy life

This scale, developed by Munakata(1996), measures feelings about worthy life. Contents of this 7-item scale were 'I get a worthy life from the work.' 'I get a worthy life from my spouse or family.' 'I get a worthy life from my activities(exercise).' and ect. For each question, 1 point was given for 'yes' and 2 points for 'no'.

The lower the score was, the more they felt the sense of worthy life. The Cronbach's alpha reliability coefficient was .699 in this study.

3) Self-esteem

5 items of scale developed by Cheek and Buss(1981) were used. 3 of them showed lack of self-esteem, and the others were opposite. For the questions showing lack of self-esteem, no point was given to 'yes', and 1 point was given to the answer of 'no'. Points were given reversely to the answers of the opposite questions. The higher the scores was, the stronger self-esteem was. The Cronbach's alpha reliability coefficient was .741 in this study.

4) Loneliness

6 items of scale developed by Russell et al.(1980) were used. 4 of them showed loneliness, and 2 of them didn't. For the 4 questions that showed loneliness, no point was given to 'yes' and 1 point was given to 'no'. Points were given reversely to the answers of the opposite questions. The higher the score was, the lesser they felt loneliness. The Cronbach's alpha reliability coefficient was .714 in this study.

3. Data Analysis

The SAS/PC(version 8.0) was used for analyzing data in this investigation. The data analysis procedure included frequency, t-test, ANOVA, Pearson Correlation Coefficient. And stepwise multiple regression analysis was conducted to examine factors influencing the health behaviors.

Ⅲ. Results

1. Sociodemographic and health characteristics(Table 1, Table 2)

Sociodemographic characteristics of the sample are summerized in Table1. Men were 53.1% and women were about 46.8% of the study subjects. Seventies composed 53.2% of the age group, leading other age groups. Approximately 75% of the subjects got no more than primary school education. As to the inmate family, 16.7% of them lived alone and 23.8% were living only with their spouse. 20.6% of them were doing economic activities. 65.9% of the subjects said that their

Table 1. General characteristics and score of health behavior

Category	N(%)	Mean(±SD)	t or F	
Gender	male	67(53.1)	0.683(±0.151)	
	female	59(46.8)	0.679(±0.132)	0.18
Age	65 - 69	22(17.5)	0.764(±0.119)	
	70 - 79	67(53.2)	0.681(±0.149)	
	80 -	37(29.4)	0.631(±0.120)	6.54**
Religion	Protestant, Catholic	23(18.3)	0.686(±0.149)	
	Buddhism	39(31.0)	0.654(±0.160)	
	none	64(50.8)	0.696(±0.125)	1.04
Education	no	52(41.6)	0.646(±0.131)	
	- elementary school	42(33.6)	0.672(±0.134)	
	- middle school	15(12.0)	0.726(±0.169)	
	high school -	16(12.8)	0.778(±0.134)	4.37**
Inmate mily	alone	21(16.7)	0.623(±0.187)	
	only with spouse	30(23.8)	0.710(±0.129)	
	with others	75(59.5)	0.686(±0.130)	2.50
Economic	yes	26(20.6)	0.745(±0.121)	
Activity	no	100(79.4)	0.664(±0.143)	6.94**
Living expenditure				
	enough	17(13.5)	0.793(±0.084)	
	medial	83(65.9)	0.673(±0.139)	
	insufficient	26(20.6)	0.634(±0.149)	7.56**
Confiding	yes	94(74.6)	0.703(±0.125)	
relationshiops	no	32(25.4)	0.617(±0.171)	3.05**

** $p<0.01$

living expenditure is medial. 74.6% said that they have someone to open their mind.

Health characteristics of the sample are summarized in Table2. 31.8% of the subjects answered that they were 'healthy' and 46.0% answered they were not. 22.0% of the sample expressed that they feel much discomfort and 48.0% said they feel some degree of discomfort when they try to move. Disease lasting more than 3 months were arthritis, which was the most common composing 58.7%, and then hypertension(27.0%),

Table 2. Health characteristics and score of health behavior(N=126)

	N(%)	Mean(±SD)	t or F
Subjective health status	good	40(31.8)	0.709(±0.157)	
	average	28(22.2)	0.704(±0.118)	
	bad	58(46.0)	0.651(±0.138)	2.52
Discomfort in moving	much	28(22.0)	0.638(±0.128)	
	a little	60(48.0)	0.665(±0.144)	
	not discomfort	37(29.0)	0.743(±0.136)	5.53**
Chronic disease	diabetes	13(10.3)	0.741(±0.096)	1.61
	hypertension	34(27.0)	0.677(±0.157)	-0.22
	arthritis	74(58.7)	0.645(±0.137)	-3.54**
	bronchitis,asthma	21(17.5)	0.637(±0.172)	-1.58
	digestive problem	9(7.1)	0.704(±0.148)	0.49
	others	10(11.9)	0.693(±0.129)	0.27

** p<0.01

Table 3. Score of health behavior and lower sectional health behavior(N=126)

	Mean(±SD)
Health behavior	0.681(±0.142)
Lower sections	
Health promotion behavior	0.715(±0.156)
Illness-avoiding behavior	0.746(±0.362)
Preventive health behavior	0.592(±0.217)

** p<0.01

bronchitis & asthma(17.5%) and diabetes (10.3%) followed.

2. Health behavior and the lower sections(Table 3)

The average item score for the health behavior(Cronbach's α=.739) was 0.681 (±0.142). When the health behaviors were specified into lower sections, health promotion behavior(Cronbach'sα=.667) and illness-avoiding behavior(Cronbach'sα=.712) were 0.715 (±0.156) and 0.746(±0.262) separately, but the preventive health behavior(Cronbach's α=.652) showed low score, 0.592(±0.217).

3. Feelings of worthy life, self-esteem and loneliness

It showed that feelings of worthy life 11.357(±1.434), self-esteem 2.651(±0.581)

and loneliness 5.016(±1.180). Self-esteem showed relatively low score.

4. Health behaviors in accordance with sociodemographic and health characteristics(Table 1, Table 2)

The bivariate relationships between sociodemographic variables and health behaviors are shown in Table 1. Sociodemographic characteristics showed significant differences in age, education, economic activities, degree of satisfaction about the living expenditure and the presence of confiding relationships or not. In other words, the younger the age, the higher the education, the more they do economic activities, the more satisfied with their living expenditure and when they have confiding relationships with someone, heath behavior scores were higher. Regarding health variables(Table 2), the subjects who had lower level of losing mobility and who had not arthritis tended to practice more health behaviors.

5. Correlations between the health behavior and feelings of worthy life, self-esteem and loneliness(Table 4)

Health behavior was found to be statistically significant and positively correlated with feelings of worthy life and with self-esteem, and it was negatively correlated with loneliness. In other words, the more they felt the worth of their life, the higher their self-esteem was, and the lesser they felt the loneliness, the degree of the practice of health behavior was higher.

6. Stepwise multiple regression analysis about the heath behavior(Table 5)

To examine factors influencing health behaviors of the subjects, stepwise multiple regression analysis was conducted. For the independent variables, factors such as age, educational level, economic activities, living expenditure, discomfort in moving, having a confiding relationships with someone or not, feelings of worty life, self-esteem and

Table 4. Correlations between the health behavior and feelings of worthy life, self-esteem and loneliness(N=126)

	Hlth beh	Worthy life	Self-esteen	Loneliness
Hlth beh	1.000			
Worthy life	-0.451**	1.000		
Self-esteem	0.389**	-0.407**	1.000	
Loneliness	0.302**	-0.467**	0.483**	1.000

Pearson Correlations, **p<0.01
Hlth beh : Health behavior
Worthy life : feelings of worthy life

Table 5. Stepwise multiple regression of health behaviors

Variables	β	R^2	ΔR^2	F
Feelings of worthy life	-0.350**	0.195		20.84**
Self-esteem	0.196**	0.262	0.067	7.69**
Confiding relationships	0.183*	0.305	0.043	5.25*

* p<.05, ** p<.01

loneliness that showed significant relations with health behaviors in bivariate and correlation analyses were used. As a result, feelings of worthy life, self-esteem, and the presense of confiding relationships or not turned out to be significant affecting factors. Thirty one percent of variance in health behavior was explained by these factors.

Ⅳ. Discussion

Preventive heath behaviors, subscale of the health behaviors, showed comparatively lower score than the other two subscales of the health behaviors, health promotion behaviors and illness-avoiding behaviors. As described above, the preventive health behaviors included more active actions like 'Do you participate in social activities?' 'Are you trying to keep the standard weight?', so elderly people are thought to take the easier form of health behaviors which can be practiced in their daily life. And also, preventive health behaviors included questions like 'Do you get a regular health check-up?' 'Do you go to the hospital right away when you think you've got a disease?', presenting the problems of the utilization of medical services in the elderly.

Among the sociodemographic variables, factors such as age, education, economic activities, degree of satisfaction about the living expenditure and the presense of confiding relationships or not were associated with the health behaviors. The findings that the higher the education, the higher their economic status, they were more likely to practice the health behavior are consistent with the other previous study result(Kim 2000). Better practice of the health behavior in the subjects with economic activities seems to present the importance of social activity and role of the elderly in the practice of the health behavior. As for the age, the younger the age, they more practiced the health behaviors. Generally in the studies(Belloc and Breslow 1972; Walker et al. 1988) for ordinary adults and the elderly, it is said that they become more concerned about the health

as they grow older, so the elderly usually better practice the health behavior. However the results seem to be different when it's only on the elderly, like this survey. Perhaps the practical problems like physical disease have more affect than the perceptional factor like the concern about the health. Actually, though we didn't present it in the form of table, the subjects showed more discomfort of moving ($r=-0.282$, $p<0.01$) and arthritis($r=-0.220$, $p<0.05$) as they are older. This tendency supports this kind of discussion indirectly. But in this study, health concern was not included, so we think the studies that include these kinds of factors should be necessary.

Subjects who had confiding relationships with someone did the practice well, and this factor turned out to be an important effect factor through the stepwise multiple regression analysis as well. This suggests the importance of psychosocial supports like relationship(Ward, Sherman, and Lagory 1984) with others in the practice of the health behavior of the elderly.

Regarding the relation between the health behaviors and the health characteristics, the more discomfort of moving and arthritis, the less subjects practiced the health behavior. This shows the reverse results against the studies(Chun and Kim 1996; Kaplan et al. 1987; Lee and Nam 1997) that said health status turns out to be poor due to the ill-practice of health behavior. These findings mean that the health behaviors and the physical status are correlated and can have vicious cyclic effect.

Psychosocial factors such as feelings of worthy life, self-esteem and loneliness, were correlated strongly each other and correlated with the health behaviors. Feelings of worthy life and self-esteem were extracted as an important factors even in the stepwise multiple regression analysis. The result that the higher the self-esteem and the less they feel loneliness, they practice the health behavior well, was also reported in other previous study(John and Louise 2003). Duffy(1988) and Park(1999) also repoted self-esteem as the most powerful predictor of health behavior in their studies.

Feelings of worthy life had the most direct effect on the health behavior. There are not many studies about the relation between the value of life and the health behavior, however, the other report(Choi and Kim 2001) that says the more satisfied in their life, the better performed the health behavior, may be consistent with this finding. But value of life discussed in this study is not merely the degree of satisfaction about the life, but rather about specific event or object. This difference makes it difficult to compare with other studies, so more studies for elderly including these factors should be conducted.

Generally in this study, the factors that affect more directly to the practice of the

health behavior of the elderly, are psychosocial factors such as feelings of worthy life, self-esteem and the presense of confiding relationships or not. Accordingly, for the promotion of the health and prevention of the disease in the elderly, these psychosocial aspects should be into consideration. Especially the intervention to find out and supply the work or object that the elderly can feel the value of life in their daily life, is needed.

(Received: Nov. 11, 2003; Accepted: Dec. 6, 2003)

References

Belloc, N.B., and Breslow, L. 1972. Relationship of physical health status and health practices. *Prev Med* 1:409-421.

Cheek, J.M., and Buss, A.H. 1981. Shyness and sociability. *J Per Soc Psychol* 41: 330-339.

Choi, Y.H., and Kim, Y.H. 2001. The study on health promoting life style of the elderly. *Korean Journal Health Education and Promotion* 18(3):103-116.

Chun, C.J., and Kim, Y.H. 1996. Correlational study of health promoting life styles, self esteem and perceived health status of adulthood. *Journal of Korean Academy of Adult Nursing* 8(1):41-54.

Duffy, M.E. 1988. Determinants of health promotion in middle life women. *Nursing Research* 33(4): 503-509.

Eyler, A.A., Brownson, R.C., Donatelle, R.J., King, A.C., Brown, D., and Sallis, J.F. 1999. Physical activity social support and middle- and older-aged minority women: U.S. survey. *Soc Sci Med* 49:781-789.

John, T.C., and Louise, C.H. 2003. Social isolation and health, with an emphasis an underlying mechanisms. *Perspectives in biology and medicine* 46(3):39-52.

Kaplan, G.A., Seeman, T.E., Cohen, R.D., Knudsen, L.P., and Guralnik, T. 1987. Mortality among the elderly in the Alameda County Study: Behavioral and demographic risk factors. *Am J Pub Health* 77:307-312.

Kaplan, M.S., Newsom, J.P., McFarland, B.H., and Lu, L. 2001. Demographic and psychosocial correlates of physical activity in late life. *American Journal of Preventive Medicine* 21(4):306-312.

Kim, N.J. 2000. Health practices of the elderly and related variables. *Journal of the Korea Gerontological Society* 20(2): 169-182.

Lee, E.C., and Nam, C.H. 1997. A study on knowledge and health practice of health affecting to health status of the elderly. *Journal of the Korea Gerontological Society* 17(3):117-143.

Lee, S.Y., Son, M.S., and Nam, J.M. 1995.

Structural modeling of health concern, health practice and health status of Koreans. *Korean Journal of Preventive Medicine* 28(1):187-206.

Lee, K.Y., and Park, T.J. 1998. Relationship of health behavior and physical health status in the elderly. *The Journal of the Korean Academy of Family Medicine* 19(4):538-548.

Munakata, T. 1996. *Behavioral science in health and illness.* Tokyo: Mejikaru-furendosha.

Oh, J.J. 1997. Comparative strudy on the health behavior and related factors of the Korean elderly and non-elderly adults. *Journal of Korean Academy of Adult Nursing* 9(2):286-296.

Park, M.H. 1999. A study on self-esteem and the health promoting behavior of nursing college students. *Journal of Korean Academy of Adult Nursing* 11(1):96-106.

Russell, D., Peplau, L.A., and Cutrona, C.E. 1980. The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *J Per Soc Psychol* 39: 472-480.

Saito, T., Sakuragi, C., Ueji, M., Takahashi, H., and Kano, K. 1997. Gender differences in lifestyles of the middle-aged and elderly: a study in Satomi village, Ibaraki. *Nippon Koshu Edisei Zasshi* 44(11):803-816.

Speake, D.L., Cowart, M.E., and Pellet, K. 1989. Health perception and lifestyles of the elderly. *Res Nur Hea* 12:93-100.

Ward, R.A., Sherman, S.R., and Lagory, M. 1984. Subjective network assessment and subjective well-being. *Journal of Gerontology* 39(1):93-101.

Walker, S.N., Volkan, K., Sechrist, K.R., and Pender, N.J. 1988. Health promoting lifestyle of older adults: comparisons with young and middle aged adults, correates and patters. *Advances in Nursing Science* 11(1):76-90.

ABSTRACT

The main purposes of this study were to investigate the content of health behaviors and to examine factors influencing the health behaviors of the elderly.

Data regarding the health behavior of 126 people over 65 years of age living in community settings were used. All subjects were interviewed using a semi-structured questionnaire. The questionnaire consisted of sociodemographic variables, health behaviors, present chronic disease, subjective health status, a scale for worthy life, a scale for self-esteem, and a scale for loneliness. Health behaviors included 27questions on diet, exercise, stress-coping, smoking, drinking, a regular medical check-up, social activities, etc. The data analysis procedure included stepwise regression using health behavior as the dependent variable, and sociodemographics, illness, and psychosocial variables as independent variables.

Stepwise regression revealed that factors such as feelings of worthy life(β=-0.350, $p<0.0001$), communicating with otjers or the lack there of (β=0.183, $p<0.05$), and self-esteem(β=0.196, $p<0.05$) were independently and significantly associated with health behaviors. For example, individuals who showed higher levels of worthy life and who had confiding relationships with others tended to practice more health behaviors. Subjects who had a higher level of self-esteem showed the same tendency.

These results suggest the necessity of a intervention that considers psychosocial aspects should be included in care of the elderly so as to promote positive health behavior.

Key Words: Health behavior, Psychosocial factor, Elderly people