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The Effect of the Health Control Behavior of the Elderly on the Emotional Happiness

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Abstract

The purpose of this study was to investigate the effects of health control behaviors on the emotional happiness of the elderly. Among the survey instruments used in this study, emotional happiness was the tool developed by Watson et al., 1978, and health control behavior was used by tools developed by Wallston et al., in 1988. Health control behaviors consist of three sub-factors: other health control behavior, accidental health control behavior, and internal health control behavior. The data collection period was collected from June 20 to July 5, 2018. A total of 152 participants were enrolled from 65 to 85 years old and were collected from six provinces of Korea (Seoul, Gangwon Province, Gyeongsang Province, Jeolla Province, Chungcheong Province, Gyeonggi Province) as much as possible. As a result of the analysis of demographic characteristics, the number of elderly people couple living was 47.4%, living alone was 21.1%, the number of people living with a couple and their children was 13.8%, the others were 10.5%. Based on the above results, 21.1% were living alone as an elderly person. And people who the highest monthly income of less than 1 million won was 36.8%, the usual meal type, 94.7% were very much eaten with vegetarianism smoking and drinking alcohol, and 94.7% did not smoke and 73.7% drank alcohol. In conclusion, Multiple regression analysis of health control behaviors on emotional happiness showed that health control behaviors had a 15% effect on emotional happiness. The following suggestions were made through the results of this study. First, the monthly income of the elderly is very low to maintain health, Second, the health of elderly people was maintained through friends and meetings. Based on these results, it should be used as a basic data for the program for the emotional happiness of the elderly

Keywords: *Accidental health control, Emotional happiness, Health control behavior, Internal health control, Others health control,*

1. Introduction

Korea has entered an aged society with more than twice the elderly population compared to the current production age. According to the statistics of the National Statistical Office, Korea was expected to enter the super aged society in 2026 [1]. Old age is the time of the completing one's life, and it is a time when the physical, psychological, and social changes which everyone undergoes are experienced. Among the changes

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in everyday life, the discontinuation of economic activity is limited in income and social role is reduced. In this way, it can be said that when the elderly people are reduced in their living area as a whole [2], It is anticipated that the environment in which the elderly should adjust is relatively difficult compared to other age groups due to physical aging, reduced social role, and lack of economic income [3]. In Korea, it was expected that there will be more problems to solve due to the rapid increase of the elderly population than other countries. As a result, more research is being carried out in various fields [4]. However, most of the researches are limited to countermeasures for life forms, such as problem solving for the care of the elderly, countermeasures for the decline of the physical functions of the elderly, and increased financial difficulties [4-5]. It can be said that the preparation for old age is a process to prepare resources and skills necessary for future life and to enjoy happy old age life. Retirement preparations are widely understood depending on the field of study and the research perspective. In addition to the economic aspects of retirement preparation, Physical, and emotional preparation [6-7]. The recent trend is to view the preparation of old age based on the integrated perspective of various life. As people have different ways of life they have lived, they can not standardize happiness uniformly, but anyone who pursues the ultimate goal of old age preparation will be pursuing happiness [8]. The life of old age is greatly influenced by the lifestyle and attitude of previous life [9], It was meaningful to examine the aspect of health promotion as a way of confirming the desired direction in relation to the way of life in which each person has lived, aiming at happiness for the elderly [10]. Health promotion is not only applicable when there is a disease, but it is even more meaningful to maintain health even if the disease is not present [11]. There have been many studies on health promotion. There are three approaches to health promotion. In other words, it is a method to make with knowledge and belief of oneself, a way to practice as a national and community level through education and institution, and finally a method to be acquired by chance through geographical characteristics or customs.

Recent studies of happiness in life have shown empirical research on philosophical search and personal happiness [12]. Campbell studied the relationship between demographic factors and happiness [13], In Korea, it could be seen that KH Choi conducted the research [14]. However, in these studies, it is reported that demographic factors that determine happiness are generally weak [15]. Since the 1980s, psychologists have been interested in determinants of happiness associated with individual psychological factors [16]. Mayer et al., argue that those who maintain intimate relationships with others are more likely to be happier than those who do not [17]. Based on such research, it can be concluded that happiness is determined by physical, economic, and social preparations including emotional aspects. Physical aging preparation is a top priority in retirement preparations [18], because illness leads to a loss of labor and a reduction in social activity [19]. The disease of old age can be caused by deepening of health change in middle age. For example, representative diseases include strokes and heart diseases caused by aggravation of hypertension. It is a disease which is caused by various diseases such as thyroid disease and diabetes Could be [20]. In addition, the health care of the middle age is very important because medical expenses are linked to economic difficulties due to the decrease of income in the old age [21]. Economic retirement preparations vary from country to country, but often depend on social security systems or depend on pensions or family support [22]. Economic problems are the real concern for people in their old age due to physical aging and retirement at work [23]. In particular, aging without guaranteed income affects family relations, friendship, health, leisure, and social activities [24]. For this reason, researchers emphasize the need to prepare for economic retirement from middle age [25]. In addition, the increasing number of elderly people living alone due to the nuclear family and individualism trends in the modern world is further amplifying the difficulties [26]. This tendency causes problems such as isolation and alienation, and this is a major factor in lowering the quality of life. Thus, Crosnoe and Elder (2002) emphasize that the important factors for successful retirement should include friends, co-workers and social group exchanges [27]. Based on the results of these studies, it can be inferred that life in the old age is determined by the way of life in middle age. The purpose of this study is to analyze the general characteristics of the middle ages and to analyze how the life style, especially the health behavior, affects the emotional happiness which is the purpose of life in the old age according to general characteristics. The health behaviors in this study are interpreted as control behavior to maintain health. Control behavior for health began in social learning theory [28]. According to this theory, the likelihood that an action will occur is determined by the values, expectations, and psychological context factors that enhance the action [29]. Health control activities

are classified into internal and external control activities. The intrinsic control behavior is that one's own actions will affect the outcome, while the coincidence is called accident control, and the fact that it is due to a strong other or external force can be said to be the control of other people [27-28]. For this purpose, Wallston (1982) developed a health locus of control (HLC) [30]. In this study, we use the HLC scale to examine how health control behaviors affect the emotional happiness of the elderly. The specific objectives of this study are as follows. First, what are the general characteristics of middle age? Second, what is the correlation between emotional happiness and health control behaviors? Third, how does the impact of middle-aged income on emotional happiness differ? Fourth, what is the effect of health control activities on emotional happiness? Through this study, it could be provided basic data for pursuing a happier life in old age and created a happy pursuit program suitable for middle age based on basic data.

2. Research Method

2.1. Research design

The purpose of this study was to investigate the effects of health control behaviors on emotional happiness among people aged 40-65 years. The research design framework is as follows (Figure 1). The sub-factors of health control behavior were composed of others health control behavior, accidental health control behavior, and internal health control behavior [30].

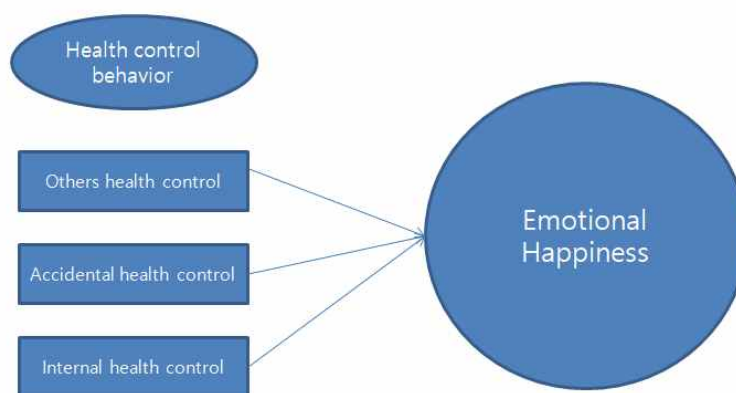


Figure 1. The Effect of the Health Control Behavior of the Elderly on the Emotional Happiness

2.2. Research tool

2.2.1. Emotional happiness

The emotional happiness questionnaire (Positive and Negative Affect Schedule: PANAS) was developed by Watson, Clark, and Tellegen [31]. This tool has a total of 20 questions, which was 10 items related to positive emotion and 10 items representing negative emotion. It was mainly written in 5 likerts in a way that determines the mood of self in daily life. The reliability of emotional happiness of this study was Cronbach's alpha = .757.

2.2.2. Health control behavior

The health control behavior was developed in 1988 by wallston et al., and consists of 18 items with 5 likerts [30]. The health control behaviors consist of three sub-factors: 6 other control health behaviors, 5 accidental health control behaviors, and 7 internal health control behaviors. The reliability of this study was Others health

control behavior Cronbach's alpha was .773, Accidental health control behavior Cronbach's alpha was .749, and Internal health control behavior Cronbach's alpha was .730

3. Result

3.1. General characteristics

In order to confirm the general characteristics of participants, frequency analysis was performed (Table 1). The results of the analysis were as follows: 56 patients (36.8%) had the largest number of people aged 76-80, followed by 48 people (31.6%) with 71-75, 40 people (26.3%) with 65-70 patients, 81-85 patients 8 (5.3%). The education level was 72 (47.4%) graduated from junior high school, 56 (36.8%) were college graduates and 24 (15.8%) were high school graduates. The number of elderly people couple living was 72 (47.4%), living alone was 32 (21.1%), the number of people living with a couple and their children was 21 (13.8%), the others were 16 (10.5%), respectively. According to the results of analysis on monthly income, the highest monthly income of less than 1 million won was 56 (36.8%), 100-199 thousand won was 48 (31.6%), 2-2.5 million won was 32 (21.1%), and 2.51-3 million won was 16 (10.5%). As a result of the analysis on religion, 40 people (26.3%) were Catholics and Buddhists, 32 people (21.1%) were Protestants, and 40 people (26.3%) were people without religions. As a result of analysis on the type of meal, 144 people (94.7%) were very much eaten with vegetarianism, and 8 people (5.3%) were predominantly meat. The number of meals per day was 112 (73.7%) three times and 40 (26.3%) twice. As a result of analyzing the health checkup, 56 persons (36.8%) were the most frequent people every year, 48 people (31.6%) were the only ones who were sick, 32 people (21.1%) were every two years, , and 16 (10.5%) did not. As a result of analyzing about smoking, 144 people (94.7%) did not smoke and 112 people (73.7%) drank alcohol. As a result of analyzing the presence or absence of naps, 80 (52.6%) were napping and 72 (47.4%) were not.

Table 1. General characteristics

Variable	Type	N(%)	Variable	Type	N(%)
Region	Seoul	40(26.3)	Education (graduation)	Middle	72(47.4)
	Gyeonggi-do	8(5.3)		High	24(15.8)
	Kyungsang-do	16(10.5)		College	56(36.8)
	Jeolla-do	8(5.3)		Singing alone	32(21.1)
	Chungcheong-do	72(47.4)		Couple	72(47.4)
	Gangwon-do	8(5.3)		Couple with child	21(13.8)
Age	65-70	40(26.3)	Religion	Others	16(10.5)
	71-75	48(31.6)		Protestant	32(21.1)
	76-80	56(36.8)		Catholic	40(26.3)
	81-85	8(5.3)		Buddhist	40(26.3)
Monthly income	Less than 1 million won	56(36.8)	Health screenings	None	40(26.3)
	100-199 thousand won	48(31.6)		None	16(10.5)
	200-250 thousand won	32(21.1)		Every 1 year	56(36.8)

	251-300 thousand won	16(10.5)		Every 2 Year	32(21.1)
Type of meal	Vegetarian	144(94.7)	Taking nutrients	Only when sick	48(31.6)
	Meat-based	8(5.3)		Yes	136(89.5)
Number of Meals / day	2 times	40(26.3)	Smoking	No	16(10.5)
	3 times	112(73.7)		Yes	8(5.3)
	None	104(68.4)		No	144(94.7)
Exercise frequency Per week	1-2 times	24(15.8)	Alcohol drink	Yes	40(26.3)
	3-4 times	16(10.5)		No	112(73.7)
	Others	8(5.3)	Napping	Yes	80(52.6)
				No	72(47.4)

3.2. Correlation between emotional happiness and health control behaviors

The relationship between emotional happiness and health control behaviors was analyzed (Table 2). The results showed that emotional happiness was significantly correlated with other health control ($r = -.267$, $p < 0.01$) and accidental health control ($r = .200$, $p < 0.01$). Other health control behaviors were significantly associated with accidental health control ($r = -.482$, $p < 0.01$) and internal health control ($r = .359$, $p < 0.01$)

Table 2. Correlation between emotional happiness and health control behaviors

Variable	Mean	SD	Correlation			
			1	2	3	4
Emotional happiness	2.618	.313	1	-.267**	.200**	.149
Other Health Control	3.789	.450		1	-.482**	.349**
Accidental Health Control	3.157	.569			1	.359**
Internal Health Control	3.421	.383				1

** , The correlation coefficient is at 0.01 level (both sides).

* , The correlation coefficient is at 0.05 level (both sides).

3.3. The Effect of Income level on Emotional Happiness (Dummy analysis)

In order to determine how much income affects the emotional happiness of the elderly, a dummy regression analysis was conducted (Table 3). According to the results, monthly income of 100-199 thousand won, 2-2.5 million won, 2.51-3 million won was less than 1 million won, respectively, 0.235, -0.107, 0.093 perceived more emotional happiness.

Table 3. The effect of income level on emotional happiness

Model	Non-standardization factor		t	p	Tolerance limit	
	B	SD			tolerance	VIF
(a constant)	2.557	.038	3.558	.000		
100-199 million	.235	.057	4.147	.000	.787	1.271
200-250 million	-.107	.064	-1.682	.095	.806	1.241
251-300 million	.093	.082	1.139	.256	.869	1.150

Independent variable : emotional happiness

3.4. The Effects of Health Control Behavior on Emotional Happiness

The results of the multiple regression analysis were used to analyze the effects of health control behaviors (sub-factor were others health control, accidental health control, internal health control) account for 15% of dependent. As a result of the Durbin-Watson test for the independence of the residuals, the result was 1.781, so that the independence of the residuals for the analysis was secured. The regression equation was meaningful because the significance probability was less than 0.05 in the ANOVA test, which tests whether the regression equation is statistically significant. As a result of the test, it was found that the p - value was lower than 0.05 and that the other person 's control and intrinsic control had a negative effect on emotional happiness at statistical significance level, Internal control has positive (+) influence. Also, it is interpreted that multi-collinearity occurs when the tolerance limit value is less than 0.01 or the VIF value is more than 10.0. In the present study, the tolerance limits were all above 0.01, indicating that there is no problem with multi - collinearity.

Table 4. The Effects of Health Control Behavior on emotional Happiness

Dependent variable	Independent variable	Non-standardization factor		B	t	p	Tolerance limit
		B	SD				
	a constant		.330		9.445	.000	
	Others control	-.331	.078	-.476	-4.237	.000	.454
Emotional happiness	Accidental control	-.090	.062	-.164	-1.450	.149	.451
	Internal control	.306	.086	.374	3.547	.001	.516

R²=.150, Modified R²=.133 , F=8.713, p=.000, Durbin-Watson=1.781

*, p<0.05, **, p<0.01

4. Conclusion

The purpose of this study was to investigate the effects of health control behaviors on the emotional happiness of the elderly. Among the survey instruments used in this study, emotional happiness was the tool developed by Watson et al., 1978, and health control behavior was used by tools developed by Wallston et al., in 1988. Health control behaviors consist of three sub-factors: other health control behavior, accidental health control behavior, and internal health control behavior. The data collection period was collected from June 20 to July 5, 2018. A total of 152 participants were enrolled from 65 to 85 years old and were collected from six

province of Korea (Seoul, Gangwon Province, Gyeongsang Province, Jeolla Province, Chungcheong Province, Gyeonggi Province) as much as possible.

As a result of the analysis of demographic characteristics, the number of elderly people couple living was 47.4%, living alone was 21.1%, the number of people living with a couple and their children was 13.8%, the others were 10.5%. Based on the above results, 21.1% were living alone as an elderly person. The elderly living alone could predict that they can face various difficulties [32]. These results were similar to those of the research on health promoting behaviors in Korea and the United States [33]. According to the results of analysis on monthly income, the highest monthly income of less than 1 million won was 36.8%, 100-199 thousand won was 31.6%, 2-2.5 million won was 12.1%, and 2.51-3 million won was 10.5%. When the elderly were treated more than the younger hospital treatment, it would be economically difficult if the monthly income was less than 1 million won. However, 36.8% of respondents answered that they earn less than 1 million won. According to analysis of the usual meal type, 94.7% were very much eaten with vegetarianism. It was important to note that when an elderly person was deprived of immunity, an animal protein has a very low intake even though it was a major component of the immune substance. As a result of analyzing about smoking and drinking alcohol, 94.7% did not smoke and 73.7% drank alcohol. Based on these results, the majority of the elderly were practicing smoking cessation, but many elderly people were drinking and it was necessary to study the causes of drinking. As result of Dummy regression analysis for the difference between income per month, Base on the above results, the monthly income of 100-199,000 won was 0.235 times higher than the one million won, Emotional happiness was higher in the 250-300,000 won than in the 1 million won, but emotional happiness was lower in the 200-250 million won than 1 million. This was a study that needs to be further investigated to see why this phenomenon occurred. In conclusion, multiple regression analysis of health control behaviors on emotional happiness showed that health control behaviors had a 15% effect on emotional happiness. The following suggestions were made through the results of this study. First, the monthly income of the elderly is very low to maintain health, Second, the health of elderly people was maintained through friends and meetings. Based on these results, it should be used as a basic data for the program for the emotional happiness of the elderly.

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