

## Effects of Health Behaviors and Depression on Quality of Life on the Elderly Hypertensive Patients in Rural Areas

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**Abstract.** The purpose of the study was to provide a basis for developing a health promotion program by identifying the effects of health behaviors and depression on the quality of life of elderly hypertensive patients in a rural area. The 137 subjects that were randomly assigned to this study were above 60 years old hypertension patients being treated in a health clinic with jurisdiction over nine villages in a rural area within J province. Data was collected for three months from January 25, 2013 to April 25, 2013. As a conclusion of these findings, . it has been recommended that a fairly urgent need to develop and implement programs to assist hypertensive elders in rural areas mediate depression, taking into consideration characteristics relating to health behavior, depression, and quality of life .

**Keyword:** hypertensive elders, health behaviors, depression, and quality of life

### 1. Introduction

Hypertension is the most common among chronic diseases and it causes a degenerative condition in the circulatory system. It is one of the typical senile chronic diseases that grows rapidly due to the aging population and is the most common disease among seniors (1). It is also known that 45.1% of people at their 60's and 55.1% of people at their 70's are diagnosed as hypertension (2). In Jeollabukdo, consists mostly of rural areas, the occurrence of hypertension reached 33.1% and ranked number one among chronic diseases, thus indicating that it requires the top priority in care (3). This study was to provide a basis for developing a health promotion program that provide self-management skills and promote health behaviors of elderly patients by identifying the effects of health behaviors and depression on the quality of life of elderly hypertensive patients in a rural area.

The aims of this research is to provide a basis for developing a health promotion program by identifying the effects of health behaviors and depression on the quality of life of elderly hypertensive patients in a rural area.

## **2. Methods**

### **2.1 Data Source**

The 137 subjects that were randomly assigned to this study were above 60 years old hypertension patients being treated in a health clinic with jurisdiction over nine villages in a rural area within J province. Data was collected for three months from January 25, 2013 to April 25, 2013. Method of survey was on-line self-administered questionnaire

### **2.2 Measurement**

With respect to measurement, the Health Interview Inventory of the 2012 Visiting Health Management Project was appropriately modified to measure health behaviors of the hypertensive elders in this research. The Geriatric Depression Scale Short Form-Korea Version (GDSSF-K) translated by Baekseok Ki and Chulwon Lee (1996) was used for measuring depression, and the Korean version of World Health Organization Quality of Life Brief Form (WHOQOL-BREF) instrument, standardized by Seongkil Min et al. (2000) was utilized to assess quality of life.

### **2.3 Statistical Analysis**

Collected data was analyzed with t-test, ANOVA, Scheffée test, Pearson Correlation Coefficient, and Stepwise multiple regression using SAS 9.2 version.

## **3 Results**

### **3.1 patients' depression and quality of life**

On the average, the subjects scored 4.09 points on the depression rate and 73.72% of subjects were normal, 16.79% showed mild depression, and 9.49% showed severe

depression. The average point for the quality of life was 3.27; by part, psychological health scored the highest with 3.41 points, followed by environmental factors (3.35) and social relations (3.25), and physical health scored the lowest with 3.05 points.

**Table 1.** Patients' depression and quality of life (N=137)

variable	Mean±SD	Min	Max	
Depression	4.09±3.37	0.00	14.00	
Quality of life	3.27±0.44	2.33	4.41	
Quality of life	Physical health	3.05±0.65	1.71	4.85
	Mental health	3.41±0.49	2.00	4.50
	Social relationship	3.25±0.53	2.00	5.00
	Environmental domain	3.35±0.41	2.37	4.62

### 3.2 correlations between subject's depression and quality of life

Depression was also negatively correlated with domain specific quality of life factors: physical health ( $r=-.621$ ,  $p<.001$ ), psychological health ( $r=-.752$ ,  $p<.001$ ), social relations ( $r=-.481$ ,  $p<.001$ ), and environmental factors ( $r=-.62$ ,  $p<.001$ ). Depression, personal health perception, and walking more than 10 minutes at a time at least once a day were variables that significantly influenced quality of life in elderly hypertensive patients, with 61% total explanatory power.

**Table 2.** Correlation between subject's depression and quality of life (N=137)

	quality of life	Lower divisions of quality of life			
		Physical health	Mental health	Social relationship	Environmental domain
Depression	-.744 <.001	-.621 <.001	-.752 <.001	-.481 <.001	-.619 <.001

## 4. Discussion

There is a fairly urgent need to develop and implement programs that mediate depression for hypertensive elders in rural areas with considerations of their degree of

health behaviors, depression, and quality of life. It is equally necessary for public health agencies, including highly approachable health clinics, to carry out long-term and positive health behavior improvement programs with not only health development and promotion, but also with a systematic hypertension education.

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