

## Adults' Preventive Education Needs with Regard to Dementia

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### **Abstract**

*This study was the descriptive survey to understand the knowledge, attitude and education needs of the adults on the dementia and to examine their relationships. The subjects were 200 adults who were convenience selected in D city. The data were collected for 20 days, from <sup>1</sup>November 4 to December 22, 2015 using self-report questionnaires and analyzed using frequencies, t-test, and Pearson's correlation coefficients with the SPSS statistics 21.0 program. According to the results, the mean score of dementia knowledge was 0.75. The mean score of dementia attitude was 3.92. The mean score of preventive education needs was 3.48. Knowledge about dementia had a positive correction with attitude. Attitude about dementia had a positive correction with preventive education needs of dementia. The study findings suggest that to take a systematic health education programs about dementia for the improvement of knowledge, attitude for adults.*

**Keywords:** *Dementia. Knowledge, Attitude, Education needs*

## **1. Introduction**

### **1.1. Necessity of the study**

Recent advances in medical science have resulted in an extension in average life expectancy, and many countries around the world are coping with the rapid aging of their population as a result. In South Korea, people aged 65 or older represented 13.8% of the entire population as of 2015, a percentage that is expected to keep increasing, to reach 40.1% in 2060 [1]. It is predicted that the number of elderly people with dementia, which is becoming a social problem along with various geriatric illnesses due to the rapid aging of the population, is also expected to increase at a sharp rate. In Korea, the number of elderly people with dementia is predicted to increase from 0.64 million in 2015 (9.8% of the entire elderly population) to 1.01 million (10.3%) in 2024. The incidence rate of dementia usually increases with age, but the number of middle-aged dementia patients is also rapidly rising, and most of them fail to receive early treatment as they tend to remain in denial of their illness for some time before finally consenting to treatment [2].

Dementia affects cognitive functions such as memory, orientation, judgment, and emotional control, resulting in changes in personality, which leads to difficulties in

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maintaining one's daily routine and normal social activities. As this increases the burden on the patients' families, deteriorating their personal and family relationships, dementia has also emerged as a social problem [3].

The symptoms of dementia vary from patient to patient, so lack of knowledge or information on the disease can lead to exposure to unexpected situations and an improper initial response, which in turn can have a negative impact on patients and their families [4]. Lack of knowledge and a prejudice against dementia causes delays in early detection and treatment, resulting in a decreased quality of life among the elderly with dementia and their families, as well as an increase in medical costs for dementia. Accurate knowledge and information about dementia can help patients' families effectively cope with the crisis of dementia and related stress, which can lead to positive changes for these families. However, many families still suffer from negative changes due to dementia. These negative changes hamper the early detection and treatment of the disease [5].

Many Koreans still have inaccurate knowledge regarding dementia, considering it as a symptom of aging, which can prevent an effective response through early treatment and diagnosis. Accurate knowledge is essential for the prevention and early detection of dementia; however, there are few studies on adults before the onset of dementia [6]. There is also a lack of specific approaches to provide tailored education for adults based on a survey on their needs for education to provide a proper understanding of dementia and health guidelines for the prevention of the disease.

Therefore, this study intended to investigate the knowledge, attitude, and educational needs related to dementia of Korean adults and to examine the correlations among these factors, in order to provide basic data for the development and application of tailored adult education programs to prevent dementia and develop positive attitudes toward it.

## **1.2. Objective of the study**

- 1) To investigate the degree of knowledge, attitudes, and preventive education needs exhibited by adults pertaining to dementia.
- 2) To investigate the correlations between adults' knowledge, attitudes, and preventive education needs with respect to dementia.

## **2. Research methods**

### **2.1. Study design**

The present study adopted a descriptive correlation design to investigate the adults' knowledge of, attitudes toward, and preventive behaviors with respect to dementia, as well as to assess the correlations among these factors.

### **2.2. Participants and data collection**

The subjects of this study were adults aged 30 to 59 who are healthy enough to visit and use local community facilities and have no difficulties in daily life and communication. The residents of D city were selected as accessible populations, and a convenience sampling was conducted so that each age group included both men and women. The final study subjects were selected from 200 adults who understood the purpose of this study, voluntarily agreed to participate in the survey and then signed the written consent form. In order to decide the number of subjects in this study, the required number of subjects was calculated using the G\*Power3.1 program based on Cohen's power analysis. A size of 134 subjects under the

condition of significance level ( $\alpha = .05$ ), power of test ( $1-\beta = .80$ ), effect size ( $f = .3$ ) was calculated. Based on such findings, 200 copies were prepared.

### **2.3. Study tools**

**2.3.1. Knowledge about dementia:** A tool inventory by Cho [7] with survey items. 1 point was given for a correct answer and 0 point was given for an incorrect answer or for the answer of "I don't know", and the average score was obtained by adding the score of each question and dividing the total score by the number of questions, and a higher score means higher knowledge. The reliability of the tool in this study was Cronbach's  $\alpha = .75$

**2.4.2. Attitude about dementia:** A tool inventory by Cho [7] with survey items. Our inventory included a total of 10 survey items. For the response method to measure how positive or negative the attitude of subjects was on tuberculosis, the Likert's 5-point scale (1 point = strongly disagree, 5 points = strongly agree) was used, and a higher score means more positive attitude on dementia. The reliability of the tool in this study was Cronbach's  $\alpha = .71$ .

**2.4.3. Preventive education needs of dementia:** A tool developed by Lee [8] and revised by this researcher was used for preventive education needs to dementia after consultation with a professor of adult nursing. For the response method to measure how positive or negative the attitude of subjects was on tuberculosis, the Likert's 4-point scale (1 point = strongly disagree, 4 points = strongly agree) was used, and a higher score means more positive attitude on dementia. The reliability of the tool in this study was Cronbach's  $\alpha = .91$

### **2.5. Data analysis**

The data analysis for achieving the purpose of this study was performed using the IBM SPSS Statistics Ver. 21 program. The subjects' general characteristics were analyzed in terms of numbers and percentages. Means and standard deviations were calculated for adults' knowledge of, attitudes toward, and preventive education needs with respect to dementia. The correlation among the three factors (knowledge of, attitudes toward, and preventive education needs with respect to dementia) were analyzed using Pearson's correlation coefficient.

## **3. Research results**

### **3.1. Subjects' general characteristics**

The subjects' general characteristics showed that the percentage of female subjects was 5.2% and the percentage of subjects aged between 50 years and 59 years was highest at 37.8% (Table 1).

**Table 1. General characteristics of subjects**

(N= 200)

Characteristics	Categories	n	%
Gender	Male	99	49.3
	Female	101	50.2
Age	30-39	31	15.4
	40-49	75	37.3
	50-59	76	37.8
	60-64	18	9.0
Religion	Yes	124	61.7
	No	76	37.8
Education	≤middle school	22	11.0
	high school	95	47.3
	≥college	83	41.3
Disease	Yes	66	33.0
	No	134	67.0
Dementia(in the family)	Yes	28	13.8
	No	172	86.2

### 3.2. Knowledge, attitude and preventive education needs of dementia among adult

The adults' knowledge of dementia was reflected by a mean score of 0.75 points out of a total score of 1.0, while the mean score of their attitude toward dementia was 3.91 out of a total potential score of 5.0. The meanscore of preventive education needs toward dementia was 3.48 out of a total score of 4.0 (Table 2).

**Table 2. Knowledge, attitude and preventive education needs of dementia among**

(N=200)

Variables	Min	Max	Mean(SD)
Knowledge	0.20	1.00	0.75(0.11)
Attitude	2.40	5.00	3.91(0.49)
Preventive Education needs	2.10	4.00	3.48(0.45)

### 3.3. The correlation among variables

The correlation between the adults' knowledge about dementia and their attitudes toward dementia was significant ( $r=.289$ ,  $p=.001$ ). Similarly, the correlation between the adults'

attitude toward dementia and their preventive education needs was also significant ( $r=.379$ ,  $p=<.001$ ) (Table 3).

**Table 3. Correlation among variables**

Variables	Knowledge	Attitude	Preventive Education Needs	(N=200)
	r(p)			
Knowledge		.289(0.001)	.103(0.149)	
Attitude	.289(0.001)		.379(<0.001)	
Preventive Education Needs	.103(0.149)	.379(<0.001)		

#### 4. Conclusions

The purpose of this study was to identify the level of knowledge, attitude toward dementia and need for dementia prevention education in adults and to determine the relationships among these factors, in order to provide a foundation for the development of dementia education programs and a positive attitude toward the disease.

The study subjects received 0.75 points out of 1 point in knowledge on dementia; while they obtained relatively higher points in attitude toward dementia and dementia education needs: 3.91 out of 5 and 3.45 out of 4, respectively. These results suggest that while Koreans have better overall information on dementia compared to the past, there is a need for more accurate knowledge and information on the disease. In addition, knowledge on dementia and attitude toward it showed a positive correlation, suggesting that it is possible to provide adults with an opportunity to have a proper understanding of dementia and prepare for it by offering them dementia education or enhancing its image through the mass media. As well, the positive correlation between attitude toward dementia and need for dementia prevention education suggests that positive changes in attitude lead to an increase in the demand for dementia prevention education.

There are currently no preventive measures for Alzheimer's, which accounts for most cases of dementia, because the cause of the disease is still unknown. However, education and campaigns about personal health promotion behaviors such as enhancement of lifestyle, which is recommended as one of measures to prevent dementia, should be extended to adults as well as the elderly. It is also necessary to include more content that provides knowledge on dementia through various health-related programs.

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