

# THE RELATIONSHIP OF COGNITIVE STATUS AND QUALITY OF LIFE OF ELDERLY IN NURSING HOME

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## ABSTRACT

**Introduction:** The increasing of life expectancy cause the number of elderly population in the world also increases. The quality of life of elderly as important aspect should be aware by health provider. One of the factors that affect the quality of life is cognitive status. The purpose of this study was to determine the relationship of cognitive status and quality of life of elderly in nursing home. **Method:** The research was analytic survey with cross sectional study approach. Population was the elderly who stay at nursing home. The numbers of participants were 52 elderly taken by simple random sampling technique. Data were analyzed using descriptive statistics as frequency distribution and chi square test. **Results:** The results showed 71.2% of elderly with sufficient quality of life, 82.7% of elderly with normal cognitive status and there was relationship of cognitive status of elderly with their quality of life. **Discussion:** Based on the result of this study can be concluded that the increasing of cognitive status will be followed by improvement of quality of life of the elderly. Therefore, the recommendation to the leadership and employees of nursing home especially health provider to design the activities that are able to encourage the elderly cognitive status in order to enhance the quality of life of the elderly. It can be by providing facilities such as exercise equipments, reading sources such as newspapers and other brain exercises activities.

**Key words:** Quality Of Life, Cognitive status, Elderly

## INTRODUCTION

The Indonesia government's success in the national sustainable development brings positive impact on the welfare of the community especially in the health sector. The positive impact of this condition caused the increasing of life expectancy. Increased life expectancy led to increasing the number of elderly population annually. The number of elderly population are increasing annually (Gitahafas, 2011).

Currently, the number of elderly is estimated that more than 625 million people (one in 10 people over the age of 60 years) worldwide. In 2025, the elderly will reach 1.2 billion. In 2020, Indonesia is predicted as one of country with huge elderly population beside China, India and United State with life expectancy above 70 years old (Nugroho, 2012). Based on data between 2013-2014 in Kota Padang, West Sumatera, there were 81,938 people who were above 60 years old (DKK Padang, 2013).

The primary impact of the increasing elderly population are increasing their dependency. The dependency of elderly caused by decreasing of physical, psychics, and their social ability. Every elderly is expected to have

good quality of life in order to support them as independent population and to reduce their dependent rate (Yuliati, Baroya & Ririanty 2014). World Health Organization (WHO) stated that quality of Life have four domain including physic health, psychics health, social and environments (WHO, 2008).

Study by Yuliati, Baroya & Ririanty (2014) showed that about 17.1% of elderly in nursing home with bad quality of life and 32.9% of them with good quality of life. Study by Supraba (2015) found that 64.58% of elderly had bad quality of life and 41.67% had good quality of life.

The frequent problem are faced by elderly is decreasing of their functional body systems which are caused change of its structure and function including brain (Bandiyah, 2009). The change of cognitive function is one impact by brain change (Sarwono, 2010).

The change of cognitive function absolutely give effect for elderly life. Surprenant & Neath (2007) showed that the cognitive function change was associated and at the end influenced quality of life of elderly. Fitriani (2014) found that there was relationship between cognitive status and quality of life.

The primary survey in Sabai Nan Aluih nursing home have found that there are 10 elderly consist of 64.54% male and 36.45% female. The average age was above 60 years old. Thought this survey also found that among 10 elderly, 20% of them had god quality of life and 80% them had bad quality of life. The result of interview using Mini Mental Status Examination (MMSE) showed that among 10 elderly, 90% of elderly with normal cognitive function and 10% of them with impaired cognitive function.

Based on this background, The purpose of this study was to determine the relationship of cognitive status and quality of life of elderly in nursing home.

### RESEARCH METHOD

The research was analytic survey with cross sectional study approach. The population of this study were elderly who were above 60 years old in Sabai Nan Aluih nursing home. The number of participants were 52 elderly taken by simple random sampling technique. There were two instruments that were used in this study as Mini Mental State Examination (MMSE) and *WHOQoL – BREF*. Data were analyzed using descriptive statistics as frequency distribution and chi square test.

### RESULT

Table 1 Descriptive Statistics of Quality of Life of Elderly in Nursing Home

Quality of Life of Elderly		
Categories	N	%
Good	10	19.2
Moderate	37	71.2
Less	5	9.6
<b>Total</b>	<b>52</b>	<b>100</b>

Table 2 Descriptive Statistics of Cognitive Status of Elderly in Nursing Home

Cognitive Status of Elderly		
Categories	N	%
Normal	43	82.7
Impairment	9	17.3
<b>Total</b>	<b>52</b>	<b>100</b>

Most of elderly (71.2%) had moderate quality of life (Table 1). Most of elderly (82.7%) had normal cognitive status (Table 2). Based on chi square test was found that there was relationship

of cognitive status of elderly with their quality of life (tabel 3).

Table 3 Tabulation of quality of life and cognitive status of elderly

Cognitive Status	Quality of Life						Total
	Good		Moderate		Less		
	n	%	n	%	n	%	
Normal	9	20.9	33	76.7	1	2.3	37
Impairment	1	11.1	4	44.4	4	44.4	36
<b>Total</b>	<b>10</b>		<b>37</b>		<b>5</b>		<b>52</b>

*Chi-Square p value =0,001*

### DISCUSSION

Results of this study found that majority of elderly (71.2%) have moderate quality of life. This result is similar with research conducted by Fitriani (2014) that found majority of elderly (77.76%) have moderate quality of life.

The tendency of the elderly with moderate quality of life can be caused they like to face their problems positively and do not often have negative feelings such as loneliness, despair, anxiety or depression. This is consistent with the theory by Coons & Kaplan in Sarafino (1994) that everyone has a different quality of life depends on them in addressing the problems that happen. If they face positively so they will have better quality of life, but when they face negatively so it cause bad quality of life. It can be seen that 40.4% of elderly do not often experience negative feelings. Elderly are also able to adjust to the environment and to accept all the changes and setbacks they experienced such as the elderly often enjoy life and feel the meaning of his life. This is consistent with the theory Kemp (Karangora, 2012) quality of life is how people assesses their experience entirety with positive or negative. This is supported by the results that 42.3% of elderly often enjoy their life, 51.9% of elderly feel their life has meaning, 59.6% of elderly were able to hang out with friends and 59.6% of elderly said that they were satisfied with their living conditions.

This study also showed that most of elderly (82.7%) had normal cognitive status. The results of this study is similar to results of research conducted by Muzamil, Afriwardi & Martini (2014) showed that majority of elderly (82.4%) have good cognitive status. Most of elderly have normal cognitive status can be seen that some of elderly still know year, season, date, day, month and they still know where they lives now.

Elderly were also able to remember when the researcher mentions three objects and follow commands sent by the researcher. This is consistent with the statement of the Ministry of Health of Republic of Indonesia (2008) that in order to maintain cognitive function in the elderly, using the brain continually and rested with sleep, activities such as reading, listening to the news and stories through the media it is intended that the brain does not rest continuously.

The results also show that a minority (17.3%) elderly people with cognitive status disorders. It can be seen at all the elderly were not able to concentrate on reducing the numbers and it also related decline in cognitive function in the elderly. Characteristics of respondents by education in this study the majority (88.9%) did not finish school. This is consistent with the theory Myers (2008) education level that has been achieved by elderly can indirectly affect their function of cognitive. Education affects the capacity of the brain, and has an impact on cognitive tests.

The results of this study showed that the proportion of elderly people who had less quality of life were common in the elderly with cognitive impairment (44.4%) than elderly people with normal cognitive status (2.3%). There is a significant relationship between cognitive status and quality of life of elderly. It means that if the elderly have normal cognitive status, the quality of life will also increase. The results of this study are similar with research that was conducted by Fitriani (2014). It showed that there was relationship between cognitive status and quality of life of the elderly.

Based on these results can be concluded that there was a relationship of cognitive status and quality of life of the elderly. It can be seen that the elderly who have less quality of life developing cognitive impairment such as inability to concentrate and ability in aspects of language. Elderly also will experience problems in social life such as the adjustment of the elderly in the environment so that the elderly do not enjoy life and feel meaningless and appear negative feelings such as loneliness, despair, anxiety and depression. It is caused by physical health problems that would limit seniors to be active in social life.

This is consistent with Gitahafas (2011) stated that elderly with cognitive impairment such as dementia decline in adaptation with environment and start to be confusion or are not

able to recognize the place usually occupied as well as experience problems in their social life. It is caused by physical health problems that would limit to move in their social life lead to the onset of the crisis and symptom-psychological symptoms that affect quality of life of the elderly.

The results of this study also were supported by the theory of WHO (2008), impaired cognitive function in elderly people can develop into dementia, can lead the elderly susceptible to interference in the activities of daily living (eating, drinking, dressing, bowel / small, etc.). Elderly with dementia will become dependent in running all the activities because they need to assist by others, the condition can affect functional capacity, psychological and social health and well-being of the elderly, defined as the quality of life (WHO, 2008).

The relationship of cognitive status and quality of life of elderly because the elderly are still full well oriented in time orientation and the orientation of such a place where he now lives. Elderly also always maintain her physical health so that the elderly are able to concentrate on adjusting to a new social life so it does not often experience the negative feelings that make the quality of life of the elderly can be increased.

## **CONCLUSION**

*Based on the result of this study can be concluded that the increasing of cognitive status will be followed by improvement of quality of life of the elderly. Therefore, the recommendation to the leadership and employees of nursing home especially health provider to design the activities that are able to encourage the elderly cognitive status in order to enhance the quality of life of the elderly. It can be by providing facilities such as exercise equipments, reading sources such as newspapers and other brain exercises activities.*

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