

# Analysis of Factors Related to The Mental Status of Elderly

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## ABSTRACT

Mental health problems can have a significant impact on elderly. Some things related to mental disorders, such as depression and dementia in elderly, are caused by several factors, including elderly independence, family support, work, health or diseases suffered by elderly, and environment. This study aimed to determine the aspects related to the mental status of older people. This type of research is quantitative research. The population in this study is all elderly who are in the working area of UPT Puskesmas Bangko Jaya. The sampling technique uses probability sampling with a simple random sampling approach with 96 elderly samples. The analysis used is a bivariate analysis using the Chi-Square statistical test. The results showed that there was a correlation between the independence of elderly and the mental status of elderly ( $p\text{-value} = 0.026 < \alpha = 0.05$ ), There was a correlation between family support and the mental status of elderly ( $p\text{-value} = 0.014 < \alpha = 0.05$ ), There was a correlation between the history of illness and the mental status of elderly ( $p\text{-value} = 0.000 < \alpha = 0.05$ ) and There was a correlation between the elderly environment and the mental status of elderly ( $p\text{-value} = 0.037 < \alpha = 0.05$ ). The nursing profession was expected to provide advocacy and assistance to health workers in primary care, especially nursing, to improve the mental status of elderly.

**Keywords: family support, independence, mental status, elderly**

## INTRODUCTION

Older people (elderly) are the final stage of human life development. This period of old age is associated with decreased ability to live and individual sensitivity. The world's population, including Indonesia, is currently heading towards an aging process marked by an increase in the number and proportion of the elderly population (Indrayani, 2018).

The elderly population worldwide proliferates even faster than other age groups (Riani, 2020). The world's elderly population in 2020 is estimated to be 727 million people. This number is projected to more than double by 2050, reaching more than 1.5 billion people. The percentage of older adults in the global population is expected to increase from 9.3 percent in 2020 to 16.0 percent in 2050 (Nations, 2020). According to the Central Statistics Agency (BPS) report in

Indonesia, in 2020, the percentage of older adults will reach 9.78% or around 26.42 million people (BPS, 2022).

The increase in the elderly population will indirectly bring challenges in various fields. In the health sector, the challenges that arise are often related to how to maintain the quality of life and health status of the elderly. The health condition of the elderly is vulnerable to various physical complaints caused by natural factors or diseases as they age. The health development indicator, the Life Expectancy Rate (AHH), continues to increase (Wulandari et al., 2019).

As AHH increases, the elderly population also experiences an increase in the health status of the elderly. In other words, the elderly must be able to achieve 'optimal aging' in their lives. To be able to achieve 'optimal aging,' they must be able to continue their life functions as best they can, such as being able to carry out physical, social, and cognitive activities as well as ensuring the mental health status of the elderly (Sundariyati et al., 2015).

Mental health denotes coping effectively with problems and managing stress to achieve a balanced emotional state (Riani, 2020). Mental health problems can have a significant impact on the elderly, including reducing the elderly's ability to carry out daily activities and reducing the independence and quality of life of the elderly (Sutikno, 2015). Apart from this, the problems which are the basis for the development of the mental health status of the elderly are also caused by the high mental burden of the elderly as they enter old age (Dewi, 2014).

A report from WHO in 2020 shows that more than 20% of adults aged 60 years and over suffer from mental or neurological disorders, and 6.6% of all disabilities among people over 60 years are attributed to mental and neurological disorders. This disorder in the elderly reached 17.4%. The most common mental and neurological disorders in this age group are dementia and depression, which affect approximately 5% and 7% of the world's elderly population, respectively. Anxiety disorders affect 3.8% of the older population, substance use problems affect nearly 1%, and about a quarter of deaths from self-harm occur in people aged 60 or over (WHO, 2020).

According to the 2019 Central Statistics Agency (BPS) report in Indonesia, the morbidity rate for the elderly population in 2019 was 26.20 percent. This means 26 to 27 older adults are sick out of 100 older adults. The prevalence of emotional mental disorders in the Indonesian population aged over 15 years is 11.6%. As much as 6.6% of the total disabilities experienced by older adults aged over 60 years are primarily associated with mental disorders or neurological disorders. The most common neuropsychiatric disorders of the elderly group are

dementia and depression. Anxiety disorders affect 3.8% of the elderly population, drug use problems affect almost 1% of the total elderly population, and almost a quarter of deaths that occur in the elderly are due to self-harm committed by the elderly (BPS, 2019).

Sutikno's research results (2015) show several variables related to the mental health of older adults, including gender, family function, physical health, and environment (Sutikno, 2015). Research conducted by Zulkarnain (2015) also suggests that several things related to mental disorders, such as depression and dementia in the elderly, are caused by several factors, including the independence factor of the elderly, family support factors, work factors, health factors or illnesses suffered by the elderly and factors environment. In general, factors related to the mental health status of the elderly include independence, family support, health factors and comorbidities, and environmental factors (Zulkarnain, 2015).

Riau Province is one with a relatively low number of elderly residents. The number of people in the elderly range, namely in 2019, was 5.56% of Indonesia's 25.56 million population, namely 1.4 million people (BPS, 2019). According to the 2018 Riau Province Health Profile Report, the number of older adults who received services for elderly health problems reached 40.3%, and those who experienced mental health disorders were 12.4%. In Rokan Hilir Regency, the number of elderly residents recorded in the health service unit is 35,041 older adults. Meanwhile, the number of older adults who received services for health problems reached 70.9%, and those who experienced depression, anxiety, and stress reached 28.3% (Health Department, 2019).

The results of a simple preliminary study carried out on February 12, 2021, showed that at the UPT Puskesmas Bangko Jaya, data was found on the number of older adults in the UPT Puskesmas Bangko Jaya working area, namely 1480 older adults. The results of interviews conducted with 5 elderly people who came for treatment at the Bangko Jaya Community Health Center general clinic showed that 3 elderly people experienced difficulty sleeping, high anxiety, and sometimes depression and symptoms of dementia. 4 out of 5 older adults also stated that they went to the health center for treatment without being accompanied by their family, they experienced illnesses because they were old, and 4 out of 5 of these people were male.

This phenomenon shows that elderly independence factors, family support factors, disease factors, and environmental factors are related to the mental status of older adults. From the

description above, researchers are interested in conducting research on “Analysis of Factors Associated with the Mental Status of the Elderly”.

## METHODS

This type of research is quantitative research with a descriptive-analytical research design. The approach used in this research is to use a cross-sectional research design. The location of this research was carried out in the work area of the Bangko Jaya Health Center UPT.

The population in this study were all 1480 older adults in the Bangko Jaya Health Center UPT working area. The number of samples in this study was 96 older adults obtained from the gameshow formula. The sampling technique used in this research is the Probability Sampling technique, and data collection is taken using the technique of Simple Random Sampling.

The data collection procedure begins with a request for permission from the Bangko Jaya Health Center first, after which the researcher randomly searches for respondents in the Bangko Jaya Health Center work area. The random sampling technique is carried out by taking respondents in each region using the sequence number of respondents with odd numbers until the number of respondents in each region is met. The researcher explains to respondents the objectives, benefits, and procedures of the research carried out. Researchers guide respondents to fill out questionnaires, and for respondents who cannot read, researchers assist them in reading the contents of the questionnaire. After the respondents answered all the questions, the questionnaire was collected again for data analysis. The instruments used were the Barthel Index and Depression, Anxiety, and Stress Scale-21 (DASS) 21 questionnaires. The statistical test used was the Chi-Square Test.

## RESULTS

The results of research conducted on factors related to the mental status of the elderly can be seen in the following table:

**Table 1. Frequency Distribution of Respondent Characteristics**

No	Characteristics	Frequency (f)	Percentage (%)
1	Age		
	55-65 Years	85	88.5
	66-75 Years	11	11.5
2	Gender		
	Male	33	34.3
	Female	63	65.6

No	Characteristics	Frequency (f)	Percentage (%)
3	Education		
	No school	13	13.5
	Elementary school	37	38.5
	Junior High School	32	33.3
	Senior High School	12	12.5
	College	2	2.1
	Total	96	100.0

The research results show that respondents' frequency distribution and percentage characteristics consist of the age category. Most respondents are elderly (55-65 years), namely 85 people (88.5%). The majority of gender respondents are female, 63 people (65.6%), and the majority of respondents' education was elementary school, 37 people (38.5%).

**Table 2. Frequency Distribution of Factors Associated with the Mental Status of the Elderly**

No	Factor	Frequency (f)	Percentage (%)
1	Independence		
	Independent	38	39.6
	Dependency	58	60.4
2	Family support		
	Support	45	46.9
	Less Supportive	51	53.1
3	History of Illness		
	There is not any	57	59.4
	There is	39	40.6
4	Environmental factor		
	Positive	43	44.8
	Negative	53	55.2
	Total	96	100.0

The analysis results show that the majority of patients' level of independence is in the dependency category, 58 people (60.4%). The majority of family support is less supportive, 51 people (53.1%), the majority have no history of illness, 57 people (59.4%), and the majority of negative environmental factors were 53 people (55.2%).

**Table 3. Frequency Distribution of Mental Status of the Elderly**

No	Mental Status	Frequency (f)	Percentage (%)
1	Light	13	13.5
2	Medium	47	49.0
3	Heavy	36	37.5
	Total	96	100.0

The analysis results show that the distribution of the mental status of older adults in the Bangko Jaya Health Center UPT work area is in the medium category, namely 47 people (49.0%).

**Table 4. Analysis of Factors Associated with the Mental Status of the Elderly**

Variable		Mental Status of the Elderly						Total		P-value
		Light		Medium		Heavy		f	%	
		f	%	f	%	f	%			
Elderly independence	Independent	4	4.2	25	26.0	9	9.4	38	39.6	0.026
	Dependency	9	9.4	22	22.9	27	28.1	58	60.4	
	Total	13	13.5	47	49	36	37.5	96	100	
Family support	Support	7	7.3	28	29.2	10	10.4	45	46.9	0.014
	Less Supportive	6	6.3	19	19.8	26	27.1	51	53.1	
	Total	13	13.5	47	49	36	37.5	96	100	
History of Illness	There is not any	12	12.5	37	38.5	8	8.3	57	59.4	0,000
	There is	1	1	10	10.4	28	29.2	39	40.6	
	Total	13	13.5	47	49	36	37.5	96	100	
Environment	Positive	10	10.4	20	20.8	13	13.5	43	44.8	0.037
	Negative	3	3.1	27	28.1	23	24	53	55.2	
	Total	13	13.5	47	49	36	37.5	96	100	

The results of the bivariate analysis show that there is a correlation between elderly independence and the mental status of the elderly (p-value 0.026), There is a correlation between family support and the mental status of the elderly (p-value 0.014), There is a correlation between history of illness and the mental status of the elderly (p-value 0.000), and There is a correlation family support and the mental status of the elderly (p-value 0.014), There is a correlation between the environment and the mental status of the elderly (p-value 0.037).

## DISCUSSION

### The Correlation between Independence and the Mental Status of the Elderly

The research results show that the Chi-Square statistical test analysis shows that the p-value =  $0.026 < \alpha = 0.05$ , meaning that  $H_0$  is rejected, so it is concluded that there is a correlation between elderly independence and the mental status of the elderly. This is in line with research conducted by Nurti (2022), which shows a significant correlation between the independence of the elderly and their mental health (Haqi, 2022). Physical insufficiency, which often occurs in the elderly, is caused by various diseases in the body or due to the consequences of the aging process and is a factor that causes emotional and mental disorders in the elderly (Qonitah & Isfandiari, 2015).

Independence is the ability or condition where an individual can manage or overcome his or her interests without depending on others. Independent elderly are elderly who are healthy in the broadest sense and are still able to carry out their personal lives. Healthy elderly means

older adults who, according to researchers, can carry out daily activities without the help of other people. Independence in the elderly includes the elderly's ability to carry out daily activities, such as bathing, dressing neatly, going to the toilet, moving around, being able to control urination or defecation, and being able to eat on their own (Nauli et al., 2014).

Symptoms that will be found in older adults who are depressed are feeling tired, decreased activity, inability to make decisions, not wanting to seek information, not wanting to participate in making decisions about themselves, irritability, and not having the will to do ADL (Activity et al.). Depressed older adults have a heavy level of independence dependence, where the elderly are unable to take care of or carry out daily activities such as bathing, dressing, mobilizing, and controlling their urination and defecation because the immune system in the elderly experiences a decline during aging so that their activities The elderly are dependent on other people daily (Nauli et al., 2014).

The results of this research align with research conducted by Qonitah and Isfandiari (2015), who stated that the results of the analysis using the Pearson Correlation test obtained a significance value (p) of 0.008, indicates that there is a significant correlation between physical independence and mental-emotional disorders in older adults in Jombang elderly social services in Kediri.

Researchers assume that along with the aging process, various declines in the ability to carry out activities occur due to a decline in physical abilities, vision, and hearing, so sometimes older adults need assistive devices to make it easier to carry out various daily activities. Due to the aging process, there are various declines in abilities, both physical and mental, vision and hearing, making it difficult to carry out daily activities.

The research results showed that most respondents were in the 55-65 year age range (88.5%). Age is related to the ability of older adults to carry out physical activities. The older the elderly, the less independent they are in carrying out activities (Haqi, 2022).

The research results showed that most respondents were female (65.6%). In general, there is no difference between gender and independence in the elderly. This is proven by research conducted by Purnanto and Khosiah (2017); Rohmah et al. (2022), which shows that there is no significant correlation between gender and the level of independence in the elderly.

### **The Correlation between Family Support and the Mental Status of the Elderly**

The research results show that the results of the Chi-Square statistical test analysis show that the  $p\text{-value} = 0.014 < \alpha = 0.05$ , meaning that  $H_0$  is rejected, so it is concluded that there is a correlation between family support and the mental status of the elderly. This is in line with research conducted by Hanifah et al. (2022), which shows a significant correlation between family support and the mental health of the elderly. Poor mental health is often found in older adults who have low-income family functioning. A family that can perform its functions well will provide support, assistance, and affection to the elderly so they do not feel alone. Family support is a protective factor in the occurrence of depression in the elderly (Sutikno, 2015).

Family support is also needed in order to educate people so that they do not often forget, for example, trying to place items/things in the same place so that it makes it easier to remember when they are needed, making notes about the location of items or activity agendas so that they are easy to remember. These few things will, of course, at least help the process of reducing forgetfulness symptoms in the elderly (Zulkarnain, 2015).

Forms of family support that the family can provide include the family being willing to listen and pay attention to the problems faced by the elderly, both health problems and other problems. Apart from that, the family helps solve the problems faced by the elderly. Families are also expected to be able to provide the information that older adults need to solve the problems they face. With this family support, older adults will feel helped in dealing with problems and feel safe and comfortable around their family (Indrayani, 2018).

Based on the results of the questionnaire, it can be seen that older adults who receive good family support not only receive pleasant treatment from the family, such as the family always listening to the elderly's complaints, showing a pleasant face when helping the elderly and caring for the elderly with great affection, but the elderly also receive support. Information from the family, such as reminding the elderly about their health condition and explaining behavior or activities that can improve health and those that can worsen the elderly's health. Elderly people who receive good family support will feel safe and comfortable among their family, which can improve the mental status of the elderly.

Researchers assume that family support will increase self-confidence, help you face problems, and increase life satisfaction. Individuals who face problems or problems will find it helpful if a family is willing to listen and pay attention to the problems they are facing. Support and attention from the family is a form of positive appreciation given to individuals. Apart from

that, informational support from the family can be used by individuals to overcome the problems they face.

### **The Correlation between History of Illness and the Mental Status of the Elderly**

The research showed that the Chi-Square statistical test analysis showed that the  $p\text{-value} = 0.000 < \alpha = 0.05$ , meaning that  $H_0$  was rejected, so it was concluded that there was a correlation between disease history and the elderly's mental status. This research is in line with research conducted by Prihananto and Mudzakkir (2023), which shows that illness in the elderly can cause depression, and this will, of course, affect the mental health of the elderly. Elderly people who are physically unhealthy have a 20 times higher chance of being mentally unhealthy than healthy elderly people. Another form of correlation is that elderly people who experience depression experience illness for longer than elderly people who do not experience depression (Sutikno, 2015).

Many elderly people experience physical limitations caused by health problems, for example, diseases such as stroke, joint disorders, heart disease, hearing loss, and so on. The presence of physical limitations causes increased loneliness and reduced participation in carrying out daily activities. Besides that, it can also cause sadness and worry about being unable to carry out activities according to your wishes. Physical limitations can increase the risk of depression by 20% (Qonitah & Isfandiari, 2015).

The results of this research are in line with research conducted by Hutasuhut et al. (2020), who stated that there were 13 (12.1%) elderly with a history of illness and 94 (87.9%) without a history of illness. The statistical test results obtained a  $p\text{-value}$  of 0.008, means that there is a correlation between history of disease and cognitive function in elderly, with an OR value of 5.370, meaning that respondents with a history of disease have a five times greater chance of experiencing functional disorders cognitive.

Researchers think that diseases experienced by the elderly during the old age period have a nasty tendency to result in mental status disorders in the elderly. The forms of disease include a history of chronic disease where the elderly experience poor health conditions for quite a long time. Apart from that, the incomplete treatment process for the disease is also a significant risk for the poor mental status of the elderly in old age.

### **The Correlation between the Environment and the Mental Status of the Elderly**

The research results show that the results of the Chi-Square statistical test analysis show that the  $p\text{-value} = 0.037 < \alpha = 0.05$ , meaning that  $H_0$  is rejected, so it is concluded that there is a

correlation between the environment of the elderly and the mental status of the elderly.

Poor mental health is often found in elderly people who have poor environments. Environmental aspects assessed include security in life, infrastructure, ownership of money, access to information, recreation, housing satisfaction, health services, and transportation. The majority of elderly people expressed an excellent assessment of the environmental aspects assessed. The environmental aspect that many consider to be unfavorable is ownership of money. This is related to the socioeconomic conditions of the elderly. The economic situation of the elderly is related to mental health (Sutikno, 2015).

The final factor in achieving mental health in the elderly is social support or the social environment. Another important component of successful aging and mental health is the existence of an effective support system. Social support sources are important in helping seniors succeed in their old age. Therefore, social support from the elderly environment, health service providers, people around the elderly, and fellow elderly friends will prevent the elderly from changing their mental state (Dewi, 2014).

This research is in line with research conducted by Sutikno (2015), which stated that the environment (80%) of respondents was in a good category. The environment for the elderly in this study also showed a significant correlation between the environment and the mental health of the elderly ( $p < 0.05$ ).

Researchers assume that the social environment of the elderly is one of the factors that is closely related to the causes of mental status disorders in the elderly. This is due to the lack of a social support system implemented by people in the elderly environment. Besides that, a bad environment will also have an impact on the elderly's poor adaptation system in responding psychologically, resulting in mental status disorders in the elderly.

## **CONCLUSION**

The results of the research show that there is a correlation between elderly independence and the mental status of the elderly ( $p\text{-value} = 0.026 < \alpha = 0.05$ ), There is a correlation between family support and the mental status of the elderly ( $p\text{-value} = 0.014 < \alpha = 0.05$ ), There is a correlation between the history of illness and mental status of the elderly ( $p\text{-value} = 0.000 < \alpha = 0.05$ ) and There is a correlation between the environment of the elderly and the mental status of the elderly ( $p\text{-value} = 0.037 < \alpha = 0.05$ ). It is hoped that the nursing profession will provide

advocacy and assistance to health workers in primary care, especially nursing staff, to improve programs for the elderly, especially in programs to improve their mental status.

## LIMITATION

The limitations of the problems examined in this research regarding factors related to mental status in the elderly include independence, family support, illness and the environment.

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