

## Factors Related to Anxiety Levels of the Elderly with Chronic Diseases in Sijunjung Regency 2019

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### Abstract

*Anxiety often occurs in the elderly and can affect the quality life of elderly. The older a person is, the occurrence of anxiety increases. As the number of elderly increases, it is very important to maintain the health of the elderly. Otherwise, it will result in the decreased physical condition, limited mobility, decreased independence, loss of self-confidence and decreased social activity. Knowing and controlling the causative factors of anxiety can be a solution to overcome anxiety in the elderly. This study aimed to measure the factors associated with the anxiety level of the elderly with chronic diseases in Sijunjung Regency. The design of this study was cross sectional approach and logistic multivariable regressions method. The samples were chosen by a cluster sampling technique with a total of 207 elderly with chronic diseases. The results showed that income, social support, social activities, and history of trauma had a significant relationship with the anxiety level of the elderly with chronic diseases and social support is the most dominant factor that related to. Thus, it was suggested to increase the nursing interventions with an approach family therapy to increase social support and it was focused on improving regular health screening so that the occurrence of chronic diseases and anxiety in the elderly could be identified earlier*

**Keywords:** elderly, anxiety, social support

### Abstrak

Kecemasan sering terjadi pada lanjut usia dan dapat mempengaruhi kualitas hidup lansia. Semakin tua usia, angka kejadian kecemasan semakin meningkat. Seiring dengan peningkatan jumlah lansia, menjaga kesehatan pada lansia sangat penting. Jika kesehatan lansia tidak terawat akan mengakibatkan penurunan kondisi fisik, keterbatasan gerak, penurunan kemandirian, hilangnya kepercayaan diri dan penurunan aktivitas sosial. Kecemasan pada lansia dapat di atasi dengan mengetahui dan mengontrol faktor penyebabnya terlebih dahulu. Penelitian ini bertujuan mengetahui faktor faktor yang berhubungan dengan tingkat kecemasan lansia dengan penyakit kronis di Kabupaten Sijunjung. Desain penelitian dengan pendekatan cross sectional dan metode analisis logistik multivariabel. Pengambilan sampel menggunakan teknik cluster sampling dengan jumlah sampel 207 orang lansia dengan penyakit kronis. Hasil penelitian menunjukkan faktor pendapatan, dukungan sosial, aktivitas sosial, riwayat trauma mempunyai hubungan yang bermakna dengan tingkat kecemasan lansia dengan penyakit kronis dan faktor dukungan sosial adalah yang paling dominan. Saran untuk pengembangan intervensi keperawatan lebih difokuskan pada peningkatan dukungan sosial dengan terapi keluarga dan penjangkaran kesehatan berkala sehingga dapat mengontrol penyakit kronis dan kecemasan pada lansia

**Kata kunci:** lansia, kecemasan, dukungan sosial

### INTRODUCTION

The number of elderly keeps increasing day by day. In 2012 Indonesia was among the third Asian countries with the largest number of elderly people over the age of 60 years. It is estimated that there will be 100 million elderly in Indonesia in 2050 (Mustari et al., 2017). The number of the elderly over 65 years old is predicted to increase from 5.5% to 6.2% in 2020 and will raise to 9.4% in 2035. This is also accompanied by the

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increased life expectancy during 2015 until 2020, from 67.9 to 68.8 years old (Badan Perencanaan Pembangunan Nasional, 2013). Research estimates that the increasing number of elderly will increase the risk of experiencing anxiety disorders, which is caused by chronic diseases that arise due to the aging process (Putri, Zulfitri, & Karim, 2011). It is difficult to cure chronic diseases, even in some cases, they becomes worse; as a result, the recovery expectancy becomes low. Moreover, since chronic disease healing

and the disease growth process cannot be confirmed (Miller, 2012). Most of the elderly have one or more chronic conditions. Consequently, it can trigger anxiety in the elderly (Norton et al., 2012).

The incidence rate of anxiety occurred in Indonesia is around 39 million people of 238 million population (Dahlan, Rahma, Midin Mardani, 2013). In Indonesia, 10% of the emotional disorders in the elderly occurs around at 65-74 years old and 13% of the emotional disorders in the elderly occurs over 75 years old (Bestari & Wati, 2016). Several studies revealed that there is a significant relationship between chronic diseases and anxiety (Bestari & Wati, 2016). It was also found that 60% of the elderly with chronic diseases in Sijunjung Regency had anxiety at moderate level (BPS Sijunjung, 2017).

Anxiety in the elderly can be caused by several factors such as thinking about the illness, the economic constraints, insufficient time to gather with family, as well as feeling lonely. As a result, the elderly got difficulties to sleep (Ayuningtyas, 2012). These problems will lead to other problems like unfulfilled needs, stress and death threats from the disease suffered; it also affect the emergence of anxiety in the elderly (Suryani, 2016). In addition, a study revealed that anxiety in the elderly in one of the nursing homes in Surakarta was related to age, sex, psychological condition and social support (Widiyaningsih, 2010).

This study aimed to find out the factors associated with anxiety levels in the elderly with chronic diseases in Sijunjung Regency in 2019. This study was expected to provide benefits in the development of nursing knowledge, to improve the achievement of health services for the elderly and the achievement of the Public Health Center program, as a reference to provide nursing care to the elderly in the early detection of early symptoms of anxiety in the elderly.

## METHODS

The type of research was correlative descriptive with cross sectional

approach. The population in this study were the elderly with chronic diseases in the Work Area of the Public Health Center in Sijunjung with a sample of 207 elderly people. The samples were selected by using cluster sampling technique (Hastono, 2016). Inclusion criteria are the elderly aged 45-75 years or older and willing to be researched, and able to communicate. The independent variables were income, social supports, trauma history and social activities while the dependent variable was the anxiety level of the elderly. The independent variables were analyzed by the questionnaires of "Geriatric Anxiety Scale". Social Support was measured by "Social Support RANS Cooperation". Trauma history and social activities were measured "yes" or "no" questions, and income depend on BPS standard (low, mild and high). Then, the data were analyzed by using bivariate data analysis with Chi-Square and logistic multivariate regression.

## RESULTS

The results of this study consists of two parts: univariate and bivariate analysis which are described below.

Univariate analysis included the characteristics of respondents and social support, social activity and trauma history.

**Table 1. Factors related to anxiety levels of the elderly with chronic diseases in Sijunjung in 2019 (n = 207)**

Variabel independen	f	%
<b>Age</b>		
Middle age	3	1,4
Elderly	188	90,8
Older people	16	7,7
<b>Gender</b>		
Female	146	70,5
Male	61	29,5
<b>Marital status</b>		
Married	104	50,2
Not married/ divorce	103	49,8
<b>Education</b>		
High	66	31,9
Low	141	68,1
<b>Income</b>		

Low	138	66,7
Medium	33	15,9
High	36	17,4
<b>Trauma history</b>		
No	148	71,5
Yes	59	28,5
<b>Social supports</b>		
High	102	49,3
Low	105	50,7
<b>Social Activity</b>		
None	120	58,0
There are	87	42,0

Table 1 shows that almost all of the respondents were in the category of elderly (60-74 years) (90.8%), and most of the elderly were female (70.5%). Then, based on the marital status, half of the elderly were married and some were not married/divorced. Based on the education, most of the elderly had a low level of education (68.1%) that most of them got the education only up to junior high school level. After that, in terms of income, most of the elderly had low income levels (66.7%). Next, based on the violence experience, most of them (71.5%) had never experienced a trauma history. Most of the elderly also had chronic diseases

Variabel Independen	P Value
Sex	0.09
Education	0.24
Income	0.05
Social activity	0.01
Marital status	0.14
Trauma History	0.00
Age	0.15
Social Support	0.00

(87.4%) and some of them (58%) did not have social activities in the community.

**Table 2. Anxiety Levels in Elderly at Sijunjung Regency 2019 (n = 207)**

Based on table 2, it is identified that more than half of the elderly have anxiety at low level (51.7%). In this study a

Variable	Cate-	Level anxiety				OR (95% % CI)	p- Valu e
		Moderate		Low			
		The anxiety level of	f	%	f		
	Moderate			100	100	48.3	
Social Activity	None	49	40.8	71	59.2	5.10	0.01
	There are			107	100		
Trauma history	None	41	69.5	18	30.5	3.43	0.00
	There are	59	39.9	89	60.1		
Social supports	Low	71	67.7	34	32.3	5.25	0.00
	High	29	8.4	73	71.6		
Income	Low	62	44.9	76	55.1	-	0.00
	Mode rate	14	42.4	19	57.6		
	High	24	66.7	12	33.3		

bivariate analysis was carried out followed by a multivariate analysis to determine the most dominant factor related to the anxiety level of the elderly with chronic illness. The results of the analysis can be seen in the table below.

**Table. 3 Bivariate Analysis**

Based on the results of research, anxiety experienced by the elderly who have social activities, the elderly who have a history of trauma and the elderly who have social support and low income. The results of the selection can be seen in the table 4 below.

**Table 4. Bivariate Selection Analysis**

Multivariate modeling is done by selecting variables that are considered important in the model by selecting independent variables that have a significant relationship with the dependent variable in bivariate analysis, included income, social activity, trauma history, and social support factors. The results of multivariate modeling analysis can be seen in the table 5 below

**Table 5. Multivariate Modeling of the Backward LR method**

Variables	B	df	P		95% C.I. for EXP(B)	
			Va-lue	Exp (B)	Lower	Upper
Step 1 <sup>a</sup> income	,411	1	,059	1,509	,985	312
Social activity	,109	1	,759	,896	,446	1,802
Trauma history	,831	1	,038	2,295	1,049	5,019
Social support	1,516	1	,000	4,554	2,384	8,697
Step 2 <sup>a</sup> Income	,406	1	,062	1,501	,980	2,297
Trauma history	,875	1	,019	2,398	1,155	4,980
Social support	1,523	1	,000	4,584	2,403	8,744

The results of the second model analysis show the above variables become 3 factors related to anxiety levels in the elderly and modeling ends. Based on the Odd Ratio (OR), the results show that the social support variable is the most dominant variable and it can be stated that the elderly with low social support have 4.5 times the risk of experiencing anxiety compared to the elderly without high social support.

## DISCUSSION

### Social Supports

Based on the literature reviews, many studies reveal that high social supports can help reduce anxiety in the elderly with degenerative diseases (Alipour et al., 2009). Social support is also related to economic and health status. The results of this study define that social support assert that social support can originate from family/close friends.

The family support becomes the most common problem for the anxiety in the elderly. The absence of social support will put a person at risk of experiencing psychological disorders; one of which is anxiety (Leung, Chen, Lue, & Hsu, 2007). Anxiety can be reduced if people get a strong support from their environment.

Besides, social support also has a direct impact on anxiety. A good interaction with family is the most important aspect in the elderly's psychology (World Health Organization, 2014).

This is in line with studies revealing that a good interaction with family is the most important aspect in the elderly's psychology (Alipour et al., 2009). Other studies conclude that low social support is directly related to the incidence of anxiety in the elderly (Stanley et al., 2016). This is due to the formation of negative perceptions which is corresponding to the decline in the elderly's cognitive function (Ramos & Stanley, 2017). This is a determining factor in the structure of coping mechanisms in overcoming mental health problems. Mental health is directly related to the level of social support in the environment around individuals (Guo et al., 2016).

Social support is the most important component affecting the mental health of elderly with chronic diseases in Iran because it can provide enthusiasm in healing the diseases suffered by the elderly (J. Kivits, M-L Erpelding, 2013). Social support refers to the support from the closest people, such as families, which is free and very effective for the elderly. The results of this study also confirm that there is a relationship between social relations of the elderly and the occurrence of anxiety, like building a good interaction with the people around them (family and community) (Ivan, Koyanagi, Tyrovolas, & Haro, 2015).

Social support is defined as a behavior that makes someone valuable, respected and loved which can relieve stress and make the elderly's life more valuable (Nayak, Mohapatra, & Panda, 2018). Social support can be psychological factors, social networks, friends, family and colleagues. Low social support might cause anxiety symptoms that trigger depression to someone in the next 4-8 months. Family is an important source of support and can be a major social support for the elderly (Putri et al., 2011).

Family is the main *support system* for the elderly in maintaining their health. This is in line with the results of a study stating that social support can come from family and close friends (Narayanan & Onn, 2016). The role of family in elderly care includes maintaining or caring for the elderly, maintaining and improving mental status, anticipating socioeconomic changes, and providing motivation as well as facilitating spiritual needs for the elderly. The family is expected to be able to meet biological needs, imperative (mutually reinforcing) needs, culture and aspirations, and family values (Kong et al., 2014).

The effectiveness of support is strongly influenced by sources of social supports. Some elderly consider that social support from families is a must because they have a bond. However, some of the elderly appreciate social support from friends more than the family. (Jooyoung, 2012). According to the results of research on the elderly in China, the support from families is needed by the elderly because it can reduce negative emotions, if it is compared with support from friends. (Jaya, Hasrat, & Rasmina, 2010). Family is the main support system for the elderly. If a problem occurs, the family is the first place for the elderly to ask for help before friends and neighbors while the social service becomes the last option (H, Ji, & Chen, 2014).

High attention and social support are necessary for the elderly to heal and treat chronic diseases they have. High social support motivates the elderly to undergo treatment for their illness. For the elderly with low social support, family therapy can be provided to increase family knowledge about elderly diseases and give the elderly enthusiasm for routine treatment at the public health center.

### **Social Activity**

A study conducted on the elderly in Japan concludes that socioeconomic status measured through a combination of educational factors, income and employment status is closely related to

mental health problems in the elderly. Its latest research found that the elderly with low socioeconomic status has a high incidence rate for experiencing mental health problems (Yeom, Baldwin, Lee, & Kim, 2015). This also happened to a study conducted in China which also explain that income is one of the social determinants of mental health in the elderly (Stanley et al., 2016).

Changes in economic conditions, which is low income of the elderly, occur because the elderly are entering the retirement age. Most of the elderly currently have income ranging from Rp. 500.0000 – Rp. 1,000,000 rupiah received from retirement fund or money given by their children.

According to the results of interviews with the elderly, it was found that some of the elderly did not have money, the elderly were financially supported by their children because most of them lived with their children. This is in accordance with the psychosocial changes that occur in the elderly, in which the retired elderly feel a series of specific losses, starting from the income, job titles and loss of routine (Swastika, Rahardjo, & Soemanto, 2017). This can affect psychological conditions in the elderly which can cause anxiety because older people who initially could manage their own finance now depend on children and immediate family.

Experiencing trauma is a major risk factor for the elderly to have anxiety problems, followed by low income and lack of social support from the family (Swastika et al., 2017). This study reveals that the trauma history refers to psychological violence in which the finance of the elderly are fully managed by the family while some elderly also have to bear the costs of their children who do not work. Most of the elderly live with their children; this means that there are more than 1 head of family in one house. This is consistent with the results of the previous studies finding that most of the trauma is performed by the family members closest to the elderly, especially psychological

trauma and the abandonment of the elderly (Stansfield & Doherty, 2019). This finding is supported by the literature stating that the elderly's mental health is affected by trauma to events occurred in the surrounding environment. Some of the events are the neglected elderly, acts of violence, natural disasters, the migration process and climate changes. This trauma generally originates from families, especially psychological trauma (Stansfield & Doherty, 2019).

The decline in physical conditions and changes suffered by the elderly provide a chance of violence and neglect by the family member, including physical, economic, and psychological neglect<sup>5</sup>. The researchers assume this difference can occur because the elderly who live with families are not given the freedom to manage their own finance in which all needs of the elderly are fulfilled by the family but the elderly are not given the money for themselves.

### **Social Activity**

The theories state that deterioration in activities occurs along with age. This means that the older a person, the more difficult for him to move (Zhang et al., 2015) The moving limitation is strongly influenced by the illness, which can cause a decrease in daily activities and social participation (Mahfiroh & Titan Ligita, 2013). This theory confirms the results of this study finding that most of the elderly in Sijunjung Regency do not have social activities outside the home (58%) while the others have social activities (42%). Those activities include worshipping to the mosque, *dhikr* and attending *majelis taklim* as well as other social activities such as a social gathering in the neighborhood.

Unfortunately, it was also found that some elderly with had a moderate level of anxiety even though they joined social activities. In this case, it is assumed that because of the elderly stay active and do not experience a decreasing activities in everyday life, in addition to the optimal aging. Yet, social support is still required

to control the disease suffered by the elderly.

Results from several studies reveal that most of the social support for the elderly is still low. It is illustrated by the elderly who do not have social activities in their environment. Thus, it is assumed that the elderly reduce the social activities because of low social support as well as the disease they suffer from.

### **CONCLUSION**

There is a significant relationship between social support, income, trauma history, and social activities and the anxiety levels of the elderly with chronic diseases in Sijunjung Regency.

It is suggested to improve the health of the elderly through mental nursing services. It can be performed by getting in touch with the family therapy and activating the mental health screening for the elderly as well as early identification of the chronic diseases and the early symptoms of anxiety in the elderly. Public health center also expected to increase the coverage of the elderly who use health services every year.

Moreover, a group therapy can be conducted in *Posyandu* for the elderly who get moderate to severe anxiety in order to reduce the anxiety level. One of them is by conducting generalist therapy such as deep breathing techniques, distraction techniques and five-finger hypnosis. After that, it can be proceeded with a specialist therapy for anxiety such as therapeutic Progressive Muscle Relaxation (PMR) and Cognitive Therapy (CT) / Cognitive Behaviour Therapy (CBT) depending symptoms from the elderly

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