


## Original Research Paper

**The relationship between self-efficacy and anxiety levels in elderly people with a history of hypertension in private elderly homes in Semarang city****Selvi Dwi Puji Asih\*** , **Elis Hartati**

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**Abstract**

Hypertension is a condition when an individual has blood pressure of 140/90 mmHg or more. Physiological and psychological changes during the aging process cause the elderly to tend to experience hypertension. Hypertension not only affects physical conditions but also affects the psychological condition of the elderly, namely it can cause anxiety. One of the factors that affects anxiety is self-efficacy. Improving self-efficacy is crucial for enhancing the elderly's quality of life. This study aims to determine the relationship between self-efficacy and anxiety levels in the elderly with a history of hypertension in private elderly homes in Semarang City. This study uses a non-experimental quantitative method with a correlational design. Sampling with a purposive sampling technique obtained 45 respondents, and the correlation test used the Pearson Product Moment test. The results of the anxiety level in the non-anxious category were 19 respondents (42.2%), and the elderly with high self-efficacy were 41 respondents (91.1%). The results of the correlation test obtained a significant value of 0.000, meaning  $0.000 < 0.005$ . It can be concluded that there is a relationship between self-efficacy and anxiety levels. The suggestions in this study are expected to provide additional information that self-efficacy is important for reducing anxiety levels.

**Keywords:** anxiety level; elderly; history of hypertension; self-efficacy**1. Introduction**

Hypertension is one of several non-communicable diseases (NCDs). According to guidelines issued by the World Health Organization (WHO), a person is said to have hypertension if they have blood pressure of 140 mmHg or more on systolic pressure and 90 mmHg or more on diastolic pressure. WHO defines hypertension as “the silent killer” because, in general, hypertension does not cause symptoms, but if not treated properly, hypertension can cause various other degenerative diseases such as heart disease, kidney disease, stroke, retinopathy, and various other complications due to uncontrolled blood pressure (WHO, 2023).

The prevalence of hypertension continues to increase every year. In 2019, it was recorded that 972 million people, or around 26.4% of the global population, suffered from hypertension. This number increased in 2022, with around 1.13 billion people in the world diagnosed with hypertension (Afriani et al., 2023). Based on the 2023 Indonesian Health Survey (SKI), it is estimated that the number of hypertension sufferers in Indonesia will reach 30.8% (Ministry of Health of the Republic of Indonesia, 2024). Meanwhile, in the population of Central Java, the prevalence of hypertension reached 37,75% with a prevalence of hypertension of 40,17% in the female population and 34,83% in the male population (Ministry of Health of the Republic of Indonesia, 2022). And based on the Health Profile of Semarang City in 2023, there were 321,720 residents who had hypertension (Hakam et al., 2023). The highest number of hypertension cases occurs in the elderly group. As many as 45.9% of

cases were found in individuals aged 55–64 years, increasing to 57.6% in the 65–74 age range, and reaching 63.8% in those over 75 years of age (Ministry of Health of the Republic of Indonesia, 2019).

Hypertension can have various impacts on the physical condition of the elderly, both physically and psychologically. Psychological problems such as anxiety are often experienced by the elderly with hypertension. Based on the World Health Organization (WHO), cases of hypertension that cause increased anxiety in the elderly affect 1 billion people, or around 13% of the number of elderly in Indonesia. WHO research shows that there are 57.4%, or half, of hypertension cases causing anxiety in the elderly (Ministry of Health of the Republic of Indonesia, 2019). Anxiety is an individual's excessive, abnormal, and continuous worry about a person's health condition, which significantly impacts the quality of life of the elderly (Bults et al., 2019). Diseases that do not heal and physical limitations experienced by the elderly can cause anxiety in the elderly (Fil et al., 2023).

Anxiety in the elderly is greatly influenced by one factor, namely self-efficacy. According to Bandura, self-efficacy is an individual's belief in their ability to overcome problems that arise in their lives. In addition, self-efficacy also plays an important role in influencing the cognitive and behavioral aspects of individuals (Tobing, 2022). Self-efficacy can affect the way the elderly think, act, and motivate themselves to solve problems (Nugroho et al., 2020). Self-efficacy in the elderly is influenced by several factors, such as experience of success, experience of others, verbal persuasion of physiological conditions, social support, and knowledge related to the disease (Indati et al., 2019).

The results of a preliminary study on October 26, 2024, at Wisma Lansia Harapan Asri Semarang, interviews with the manager showed that there were a total of 81 elderly living in this guesthouse from Semarang and its surroundings, some even from outside the city of Semarang, such as Jakarta, Surabaya, and Palembang, with different religious backgrounds, the majority of whom are Christian. Wisma Lansia Harapan Asri is one of several elderly guesthouses in Banyumanik District, Semarang City, that operate under the auspices of the Catholic Foundation, namely the Mardiwijana Foundation, which is tasked with protecting, serving, and providing social security for elderly welfare (Ramadhani et al., 2023). A short interview was conducted by the researcher with 10 elderly people with a history of hypertension. The results showed that 2 elderly people said they experienced anxiety when they first found out they were diagnosed with hypertension, 1 elderly person said they felt anxious because they were afraid of complications that could occur due to hypertension, and 7 elderly people said they did not experience anxiety because they received support from peers and the orphanage and the strength of their belief in God. While for self-efficacy, 8 elderly people said they were confident that they could overcome problems and unexpected situations with their own efforts and abilities. The other 2 elderly people said they only surrendered to all problems and only depended on God's help.

Research related to self-efficacy and anxiety levels of the elderly has been widely conducted in hospitals and communities, but there has been no research related to self-efficacy and anxiety levels of the elderly living in social service homes. This study aims to examine "The Relationship between Self-Efficacy and Anxiety Levels in the Elderly with a History of Hypertension in Private Elderly Homes in Semarang City" with the hope that the findings of this study will help identify the relationship between anxiety level and self-efficacy.

## 2. Research Methods

The study used a quantitative non-experimental research design with a correlational design with a cross-sectional approach. The population of this study was the number of male and female elderly living in Pantia Werda Pengayoman and Wisma Lansia Harapan Asri, Semarang, totaling 129 people. The sampling technique used a purposive sampling technique. The research sample was 45 elderly who had met the inclusion criteria, including 1) male and female elderly who had a history of hypertension, lived in Pantia Werda Pengayoman and Wisma Lansia Harapan Asri, Semarang and is

taking antihypertensive medication; 2) willingness to be respondents; and 3) good communication skills. The criteria for a history of hypertension were determined by researchers accompanied by nursing home nurses by examining the elderly's health history data, then validating it by re-measuring blood pressure before data collection.

This study used a demographic data questionnaire consisting of age, gender, last education, length of stay in the nursing home, medical history, current condition, and marital status. The General Self-Efficacy Scale (GSES) questionnaire consists of 10 question items used to measure the self-efficacy of the elderly. The Hamilton Anxiety Rating Scale (HARS) questionnaire consists of 14 question items used to measure the level of anxiety in the elderly. Data processing in this study was done through editing, coding, data entry, and data cleaning processes. The correlation test in this study began with a normality test with the results of the Asymptotic Sig value of 0.469, meaning that the value (Asymptotic Sig) > 0.05 can be concluded that the data is normally distributed so that the researcher used the Pearson Product Moment correlation test. This study has been approved by the Health Research Ethics Commission of the Faculty of Medicine, Diponegoro University, with the number 016/EC/KEPK/FK-UNDIP/1/2025.

### 3. Results and Discussion

#### 3.1.Characteristics of Respondents

The sample size obtained and processed in this study was 45 samples, namely elderly people with a history of hypertension who lived in the Pengayaman Nursing Home, Semarang, as many as 15 people and in Wisma Harapan Asri, Semarang, as many as 30 people, with the following respondent characteristics:

**Tabel 1. Respondents Age**

	Min-Max Value	St. Dev	Mean	Median
Age	60-92	8,951	75,91	76,00

The results of the study shows that the average age of respondents is 75.91 years, the youngest respondent is 60 years and the oldest respondent is 92 years old. Decreased body function due to the aging process can cause anxiety due to fear of worsening illness, complications that may occur, and concerns about being completely dependent on others (Hawari, 2021). Anxiety in the elderly can be caused by the inability of the elderly to solve problems due to the aging process (Fatkhul et al., 2020).

**Tabel 2. Respondents Characteristics**

Characteristics	Category	Frequency	Percent (%)
Gender	Male	20	44,4
	Female	25	55,6
Last Education	Elementary School	6	13,3
	Junior High school	11	24,4
	High School	16	35,6
	College	12	26,7
Length of Stay in Nursing Home	1 month – 5 years	38	84,4
	6-10 years	4	8,9
	11-15 years	3	6,7
Health History	Hypertension	45	100
	Diabetes Mellitus	4	9
	Cholesterol	1	2
	Stroke	2	4
	Heart Disease	3	7

Characteristics	Category	Frequency	Percent (%)
Current Condition	Not Complaints	32	71,1
	Pain	9	20
	Cough	3	6,7
	Flu	1	2,2
Marital Status	Married	5	11,1
	Happy Life	0	0
	Divorced Death	38	84,4
	Unmarried	2	4,4

The results of this study indicate that the gender of respondents in the study was more female, with a total of 25 elderly (55.6%), and male, with a total of 20 elderly (44.4%). According to Wahid et al. (2021), gender is one of the factors that can influence anxiety. Women have a higher risk of experiencing worry and anxiety than men because they are more sensitive and tend to use emotions in solving problems (Utami et al., 2022).

The highest level of education of respondents was at the high school/vocational school level, with 16 elderly (35.6%). The level of education will affect how a person chooses the right coping when experiencing anxiety. Sufficient knowledge will make it easier for a person to recognize stressors from within and outside themselves so that they do not easily experience anxiety (Buafo et al., 2024). The level of education also affects a person's belief in their ability to manage the disease they are facing (Fitriani et al., 2024).

The majority of respondents' length of stay in the nursing home was 1 month-5 years, with 38 elderly (84.4%). Elderly people who have lived in nursing homes for longer tend to adapt more easily to the environment, making it easier to find the right coping when facing problems (Darmawan, 2020). The duration of stay in nursing homes can form various experiences from previous and current lives that can increase the self-efficacy of the elderly (Ezalina et al., 2023).

All respondents had a history of hypertension. The majority of respondents had no complaints during the research process. The most common marital status of respondents was divorced or widowed, with 38 elderly (84.4%). Marital status can affect anxiety and self-efficacy, which impacts the quality of life of the elderly (Daely et al., 2022). Elderly people who are married and still live with their partners mostly show high self-efficacy and low anxiety (Gunawan et al., 2020).

**Tabel 3. Respondents Anxiety Levels**

Anxiety Levels	Frequency	Percent (%)
Not Anxious	19	42,2
Mild Anxiety	17	37,8
Moderate Anxiety	6	13,3
Severe Anxiety	3	6,7
Very Worried	0	0
<b>Total</b>	<b>45</b>	<b>100</b>

The results of the study shows that elderly people with a history of hypertension have anxiety levels in the category of not anxious as many as 19 elderly people (42.2%), mildly anxious as many as 17 elderly people (37.8%), moderately anxious as many as 6 elderly people (13.3%), and severely anxious as many as 3 elderly people (6.7%). In line with the research of Priannahatin et al. (2023) on the level of anxiety in the elderly with hypertension, it shows that the majority of the elderly have mild anxiety levels of 31 respondents (77.5%) (Priannahatin et al., 2022).

Anxiety that occurs in the elderly can be influenced by several factors, both internally and externally. Internal factors include age, gender, potential stressors, education level, coping response, maturity, personality type, economic status, health, and marital status. External factors include threats to integrity and threats to the self-system (Utami et al., 2022).

The level of anxiety is divided into 5 categories, namely not experiencing anxiety, mild anxiety. Moderate anxiety, severe anxiety, and very severe anxiety or panic. The category of anxiety levels experienced by the elderly is influenced by several factors, including spirituality, social support, and adaptive coping (Husna et al., 2019). This is in line with research conducted by Wisnusakti et al. (2019), which states that the level of spirituality formed by religious and existential well-being factors will have an impact on a person's anxiety. In addition to spirituality, social support is also a factor that influences elderly anxiety. Social support from family, friends, or communities can create a sense of connectedness and reduce anxiety (Villa, 2021).

**Tabel 4. Respondents Self-Efficacy**

Self-Efficacy	Frequency	Percent (%)
Low Self-Efficacy	4	8,9
High Self-Efficacy	41	91,1
<b>Total</b>	<b>45</b>	<b>100</b>

The results of the study shows that 8.9% (4 respondents) of elderly people with a history of hypertension have low self-efficacy and 91.1% (41 respondents) of elderly people with a history of hypertension have high self-efficacy. These results are supported by research by Ezalina et al. (2023) on the relationship between self-efficacy and psychological well-being, showing that the majority of elderly people have high self-efficacy, namely 52 respondents (68.4%) (Ezalina et al., 2023). In line research by Anggraeni et al. (2020), which stated that elderly people with a history of hypertension and currently taking antihypertensive medication had good self-efficacy, namely 48 respondents (96%). This indicates that self-efficacy can influence medication adherence in elderly people with a history of hypertension (Anggraeni et al., 2020).

Self-efficacy is a person's belief in their ability to carry out a task or face problems and the power to increase self-confidence in healthy behavior 139. According to Nuarini (2023), the higher the self-efficacy a person has, the greater the belief in maintaining and improving health behavior (Nuraini, 2023). The level of knowledge also affects the level of self-efficacy of each individual; the higher the level of knowledge, the easier the adaptation process will be, resulting in a positive individual attitude in facing various problems (Anggraeni et al., 2020).

**Tabel 5. Relationship Between Self-Efficacy And Anxiety Levels**

Variabel	Self-Efficacy	Anxiety Levels
Self-Efficacy Pearson Correlation	1	-.710**
Sig. (2-tailed)		.000
N	45	45
Anxiety Levels Pearson Correlation	-.710**	1
Sig. (2-tailed)	.000	
N	45	45

The results of the study shows that  $n = 45$ , Pearson correlation value is  $-0.710$ , and the  $p$ -value is  $0.000$ , meaning  $0.000 < 0.005$ ; thus, it can be concluded that there is a relationship between the variables of self-efficacy and anxiety. The results of the statistical test also show a Pearson Correlation value of  $-0.710$ , which explains that the strength of the relationship between the two

variables is strong with a negative direction, namely, the higher the level of self-efficacy, the lower the respondent's anxiety.

The degenerative process that occurs in the elderly can result in decreased endurance so that the proportion of elderly people who experience health problems is increasing (Rohmah et al., 2019). The most common health problem experienced by the elderly is hypertension (Nuraini, 2023). Hypertension is a chronic disease that takes a long time to heal. Diseases that do not heal and concerns about the severity of the disease can cause anxiety in the elderly (Nurfritri et al., 2021). Anxiety that occurs in the elderly can potentially be bad for physical, psychological, and behavioral conditions, thus affecting the quality of life of the elderly (Rindayati et al., 2020).

Anxiety that occurs in the elderly can be influenced by several factors, both internally and externally. Internal factors include age, gender, potential stressors, education level, coping response, maturity, personality type, economic status, health, and marital status. External factors include threats to integrity and threats to the self-system (Utami et al., 2022). Other factors that can affect the level of anxiety in the elderly are spirituality, social support, and adaptive coping (Husna et al., 2019). This is in line with research conducted by Wisnusakti et al. (2019), which states that the level of spirituality formed by factors of religious well-being and existential well-being will have an impact on a person's anxiety. The aspect of religious well-being is related to how strong the belief in God is, how strong the religion is, and how often one performs worship. While existential well-being is related to positive life experiences. In addition to spirituality, social support is also a factor that influences anxiety in the elderly. Social support from family, friends, or community can create a sense of connectedness and reduce anxiety (Villa, 2021).

Self-efficacy is a person's belief in their ability to carry out a task or face problems and strength in increasing self-confidence in healthy behavior (Sukmaningsih et al., 2022). According to Nuraini (2023), the higher the self-efficacy a person has, the greater the confidence to maintain and improve health behavior (Nuraini, 2023). High self-efficacy can be indirectly influenced by education factors. The level of self-efficacy can be influenced by the level of individual knowledge, where the higher the individual's knowledge, the more progress in thinking about good behavior and habits so that it can affect self-health management (Anggraeni et al., 2020). The results of the study showed that high self-efficacy possessed by the elderly with a history of hypertension is mostly located in the magnitude dimension, namely the aspect of belief in being able to face difficult problems by trying hard and belief in maintaining the goals they have. Someone who has high self-efficacy will be more likely to have confidence and ability to achieve desires according to goals (Mulyana et al., 2019). Aspects that need to be considered in self-efficacy in this study are related to the strength dimension, namely confidence in dealing with problems in various unexpected situations that are influenced by lack of successful experience and positive experiences from others.

#### **4. Conclusion**

There is a significant relationship between self-efficacy and anxiety levels in the elderly with a history of hypertension in private elderly homes in Semarang City. High self-efficacy will affect the belief they are able to overcome their health problems, thus forming adaptive coping to be able to manage the anxiety experienced.

Future research should be more comprehensive in examining other factors that have not been studied in this study, both internal factors including personality type, economic status, coping responses and maturity and external factors including integrity threats that can affect anxiety levels and self-efficacy in the elderly with a history of hypertension.



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