

Hypnotherapy to Reduce Stress and Total Cholesterol Blood Levels in the Elderly

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ABSTRACT

Management of degenerative diseases in the elderly needs specific and comprehensive treatment. The development of complementary therapies has recently been in the spotlight of many countries. Some scientists speculate that hypnotherapy can change an individual's acceptance of pain or other physical symptoms. This study aimed to determine the effect of hypnotherapy on changes in stress levels and total blood cholesterol levels in the elderly at Posyandu Kaswari and Garuda in the Tanjunggugat Health Center. This study used a non-randomized control group pretest and posttest design. The sample consisted of 30 older adults, 15 in the experimental group and 15 in the control group. Data were collected using a blood cholesterol test kit and the Kessler Psychological Distress Scale instrument. The bivariate analysis showed that hypnotherapy's effect on reducing stress levels and total cholesterol blood levels of the elderly at Posyandu Kaswari, Tanjunggugat Health Center. It is recommended to socialize hypnotherapy to the public and establish it as an independent nursing intervention to improve the quality of human life in hospitals and the community.

Keywords: hypnotherapy; stress; cholesterol

INTRODUCTION

Based on the Central Bureau of Statistics in 2013-2015 ⁽¹⁾, the life expectancy for men was 68.49 years in 2013, 68.87 years in 2014, and 68.93 years in 2015, while in women, 72.41 years in 2013, 72.59 years in 2014 and 72.78 years in 2015. The increase in human life expectancy also increases the elderly population, especially in Indonesia. According to WHO, the elderly population in Southeast Asia is 8%, or around 142 million people. In 2050, it is estimated that the elderly population will increase 3 times from 2020. Based on data, the elderly population in Indonesia was around 7.4% in 2000, 9.77% in 2010, and 11.34% in 2020. It is predicted that in 2050 it will reach 21.4% of the total elderly population. ⁽²⁾ Aging is a natural process experienced by all living things due to the gradual loss of body tissues and organs' ability to repair themselves and maintain body structure and function. Changes resulting from the aging process include physical, mental, spiritual, and psychosocial changes. ⁽³⁾ Roach (2001) states that the elderly tend to suffer from chronic diseases. About 80% of the elderly in the world suffer from at least one type of chronic disease, such as hypertension, arthritis, diabetes mellitus, and others. One of the causes of hypertension is atherosclerosis. Atherosclerosis activates the inflammatory reaction and forms free radicals. Damage can result from physical injury (e.g., hypertension), chemical injury (e.g., increase in low-density lipoprotein or LDL), infection, heavy metal exposure, or chemical exposure. The main risk factors for atherosclerosis are diabetes mellitus, smoking habits, hypertension, obesity, and hyperlipidemia. Other factors include phlebitis, surgery, and autoimmune disease. Clients with peripheral vascular disease have an atherosclerosis history of coronary heart disease, myocardial infarction, arterial fibrillation, carotid artery stenosis, and stroke or kidney disease. ⁽⁴⁾

Management of degenerative diseases in the elderly needs specific and comprehensive treatment. Based on research by the National High Blood Pressure Education Program (2003), as cited in Black and Hawks (2014) on hypertension, it is essential to normalize blood pressure for optimal clients' health. Promoting the detection, treatment, and control of blood pressure can increase understanding of hypertension, heart attacks, and strokes. In addition, long-term compliance and obedience are essential in reducing the morbidity and mortality associated with hypertension. Professional patient management requires a systematic, multifactorial and multidisciplinary team approach to primary and secondary prevention. The 2010 healthy people guide focuses on prevention and recommends using pharmaceuticals and non-pharmaceuticals in managing hypertension. The elderly are more susceptible to adverse reactions to antihypertensive drugs; therefore, it is necessary to give strict monitoring and give complete information on treatment ⁽⁴⁾. Hypnosis is scientifically recognized by WHO as a safe way of healing. According to history, theory, and practice, hypnosis and hypnotherapy can be taught thoroughly so that everyday people can apply them with fun and ease. Some scientists speculate that hypnotherapy stimulates the brain to release neurotransmitters, brain chemicals, enkephalins, and endorphins, to improve mood and change the individual's acceptance of illness or other physical symptoms. Hypnotherapy is a trending therapy that aims to motivate behavior change ⁽⁵⁾. According to Hendriyanto et al. ⁽⁶⁾, hypnotherapy effectively reduces student stress levels. Research by Siska et al ⁽⁷⁾ confirmed hypnotherapy's effect on hypertension clients' blood pressure in Jabon Public Health Center. Based on this description, this research aims to determine the effect of hypnotherapy on reducing total blood cholesterol levels in the elderly. This study aimed to determine the effect of hypnotherapy on reducing stress levels and total blood cholesterol levels in the elderly.

METHODS

This study was a quantitative research with a quasi-experimental method. The design of the study was non-randomized control group pretest and posttest. The population in this study were all the elderly who living in the

working area of the Tanjunggugat Public Health Center and had total cholesterol of more than 200 to 239 mg/dl. The sample of this study consisted of 30 elderly people in Posyandu Kaswari and Garuda. This research was conducted at Posyandu Kaswari and Garuda in the working area of Tanjunggugat Public Health Center. The independent variable was hypnotherapy and the dependent variables were the stress level and total blood cholesterol levels in the elderly. The instrument for measuring total cholesterol levels in the blood was a blood cholesterol test and stress level with the Kessler Psychological Distress Scale instrument consisting of 10 questions. Univariate analysis was carried out on the variables of total cholesterol levels in the blood and stress levels from the results of the study in the frequency distribution table. Bivariate analysis using statistical independent sample t-test to determine total cholesterol levels in the blood and stress levels in the elderly.

RESULTS

Table 1. Initial stress levels of treatment and control groups

Variable	Category	Treatment		Control	
		f	%	f	%
Stress level	No stress	4	26.6	8	53.3
	Mild stress	5	33.3	6	40.1
	Moderate stress	6	40.1	1	6.6

Table 2. The final stress level of the treatment and control groups

Variable	Category	Treatment		Control	
		f	%	f	%
Stress level	No stress	12	80	7	46.6
	Mild stress	3	20	3	20
	Moderate stress	0	0	4	26.7
	Severe stress	0	0	1	6.7

Table 1 shows that almost half of the respondents in the treatment group (40.1%) had an initial stress level in the moderate stress category. Meanwhile, in the initial stress level of the control group, more than half of the respondents were in the non-stressed category (53.3%). From table 2, it can be seen that the final stress level of the treatment group was mainly in the non-stress category (80%), and the final stress level of less than half of the control group was in the non-stressed category (46.6%).

Table 3. Initial total blood cholesterol levels in the treatment and control groups

Variable	Category	Treatment		Control	
		f	%	f	%
Cholesterol levels	Borderline	15	100	15	100

Table 4 Total blood cholesterol levels at the end of the treatment group and control

Variable	Category	Treatment		Control	
		f	%	f	%
Cholesterol levels	Normal	10	66.7	0	0
	Borderline	5	33.3	11	73.3
	High	0	0	4	26.7

From table 3, it can be seen that the initial total blood cholesterol levels in the treatment group and the control group were the same; all (100%) respondents had cholesterol levels within the borderline or high risk (200-240 mg/dl). From table 4, it can be seen that the final blood total cholesterol levels in the treatment group were mostly normal (66.7 %), while in the control group, most (73.3%) respondents with total blood cholesterol levels were within the borderline category.

Table 5. Respondents' stress level in the treatment group

Stress level	n	Average $\pm$ SD	mean difference $\pm$ SD	CI (95%)	p
Pre hypnotherapy	15	23.00 $\pm$ 3.65	6.07 $\pm$ 3.97	3.86-8.26	0.000
Post hypnotherapy	15	16.93 $\pm$ 2.40			

Table 6. Total blood cholesterol levels of respondents in the treatment group

Total cholesterol level	n	Average $\pm$ SD	mean difference $\pm$ SD	CI (95%)	p
Pre hypnotherapy	15	232.60 $\pm$ 7.35	54.40 $\pm$ 44.16	29.94 $\pm$ 78.86	0.000
Post hypnotherapy	15	178.20 $\pm$ 42.35			

Table 5 shows that the p-value was 0.000 (hypnotherapy is effective in reducing stress levels in the elderly). After giving hypnotherapy, the decreased magnitude in stress levels ranged from 3.86 to 8.26 points with a 95% confidence interval. Table 6 shows that the p-value was 0.000 (hypnotherapy affects reducing total blood cholesterol levels in the elderly). The decreased magnitude in stress levels after giving hypnotherapy ranged from 29.94 to 78.86 points with a 95% confidence interval.

DISCUSSION

The results showed that the stress level of the elderly before hypnotherapy was in the moderate stress category (40.1%), while after hypnotherapy, the stress level of the elderly is in the non-stress category (80%).

According to Greenberg (1984), stress is expressed as a physical, mental, and chemical reaction of the body to situations that are frightening, shocking, confusing, dangerous, and disturbing to a person.⁽⁸⁾ Stress is a condition of tension that affects a person's emotions, thought processes, and physical condition. Meanwhile, Aging is a natural process experienced by all living things due to the gradual loss of body tissues and organs' ability to repair themselves and maintain body structure and function. Changes resulting from the aging process include physical, mental, spiritual, and psychosocial changes.⁽⁹⁾

The results showed that the treatment and control groups' initial total blood cholesterol levels were within the borderline or below high risk (200-240 mg/dl). Meanwhile, after hypnotherapy, it was found that 66.7% of the elderly had normal cholesterol levels. According to Corwin⁽¹⁰⁾, the risk of coronary artery disease increases with increasing cholesterol levels in the blood. Cholesterol is a waxy fat compound primarily produced in the liver and partly obtained from food.

The study showed that giving hypnotherapy reduces stress levels in the elderly. The decreased magnitude in stress levels after giving hypnotherapy ranged from 29.94 to 78.86 points with a 95% confidence interval. In Synchron with the theory of Smeltzer & Barre⁽¹¹⁾, the factors that affect the stress response are metabolic changes in older persons, which affects the response to opioid analgesics. Hypnosis is part of the subconscious mind's exploration and closely correlates with psychology, which can be used to improve the quality of human life⁽¹²⁾. According to Setyadi et al.⁽¹³⁾, hypnosis is the art of influencing by utilizing the client's suggestions. Meanwhile, Indonesians use suggestions more than Westerners, prioritizing ratio and logic. In general, the working mechanism of hypnotherapy is closely related to the activity of the human brain. Bioplasmic health disorders (aura and chakras) must be overcome with hypnotherapy because chemical drugs cannot reach the bioplasm. Bioplasmic health disorders can be seen from decreased mental and physical endurance, as well as various forms of allergies. Hypnotherapy is also performed for patients with psychosomatic disorders. As for pure physical disorders (somatic), hypnotherapy acts as a support. Hendriyanto et al. research⁽⁶⁾ shows that hypnotherapy effectively reduces stress levels. This is confirmed by research by Setyadi et al.⁽¹⁴⁾ that hypnotherapy effectively reduces levels of depression, anxiety, and stress.

The results showed that there was an effect of giving hypnotherapy to the reduction of total blood cholesterol levels in the elderly. The decreased magnitude in stress levels after giving hypnotherapy ranged from 29.94 to 78.86 points with a 95% confidence interval. The development of complementary therapies has recently been in the spotlight in a lot of countries. The community uses this therapy for reasons of belief, finances, chemical drug reactions, and healing rates⁽¹⁵⁾. Nurses have the opportunity to be involved in this therapy with evidence-based practice. Complementary therapy has been supported by various theories, such as the theory of Nightingale, Roger, Leininger, and others. Complementary therapies can be used at various levels of prevention; with complementary therapies, nurses can play a role according to the client's needs. The need for nurses to increase their ability to better performance is also increasing. If nurses have reliable ability, it will improve results in nursing care. Thus, hypnotherapy can be used as a therapy in nursing care interventions, especially in reducing stress levels and total blood cholesterol levels in the elderly. This is in line with research conducted by Sutrisno et al.⁽⁷⁾, which shows that hypnotherapy has a significant effect on reducing high blood pressure.

CONCLUSION

Hypnotherapy affects reducing stress and total cholesterol blood levels of the elderly at Posyandu Kaswari in the Working Area of Tanjunggugat Health Center.

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