



Application of Stress Management in the Elderly People At Posbindu RW 7, Ciwaringin Village and RW 5 Menteng Village Bogor City

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Abstract. Background: Elderly people who have hypertension can be worse if they experience stress. Merdeka Health Center and Gang Kelor through the Bindu RW 7 Post in Ciwaringin Village and RW 5 Menteng Village have made various efforts to provide health services to the elderly with hypertension, including health checks, blood pressure checks, and counseling. The number of elderly in Posbindu RW 7 in Ciwaringin Village who came to Posbindu was approximately 45 people / month and in Posbindu RW 5 Menteng Village about 35 people / month.

Methods: Implementation of stress management begins with a pre-test of knowledge and attitudes towards the management of hypertension and then is given education about hypertension and stress management: deep breathing techniques and progressive muscle relaxation then post-test.

Results: The average knowledge of management of hypertension increased from 85 to 90; and increasing stress management knowledge from an average of 65 to 85. The increase in knowledge of management of hypertension in cadres from a mean score of 70 to 90; and increasing stress management knowledge from the average score of 60 to 70. The stress scores of the elderly in partners I and II were 15 and 16. The post test results of stress in the elderly in partners I and II were 13 and 15. Before the activity began, the mean systolic blood pressure in the elderly partners I and II are 149 and 147, the average elderly diastolic blood pressure in partners I and II is 91 and 94. After the activity ends, the average systolic blood pressure of elderly in partners I and II is 137 and 133, the average elderly diastolic blood pressure in partners I and II are 84 and 85. The application of stress management can reduce blood pressure in elderly hypertension.

Conclusion: Training of health cadres can increase knowledge about management of hypertension.

Introduction

The higher life expectancy in Indonesian society, the greater epidemiological transition to disease. As a result of the increasingly epidemiological transition of the disease, health problems have shifted from infectious diseases to degenerative diseases. Based on the results of basic health research (riskesdas) in 2007, degenerative diseases increased from 41.7% in 1995 to 59.5% in 2007 (1).

Elderly people who have hypertension can be worse if they experience stress. The

relationship between stress and suspected hypertension through increased sympathetic nerve activity can increase blood pressure intermittently (erratic). Prolonged stress can result in high sedentary blood pressure. Although this has not been proven, the incidence in urban communities is higher than in rural areas. This can be related to the influence of stress experienced by community groups living in cities(2).

Stress management with blood glucose stability in elderly people who have hypertension in Banyumanik Semarang shows that there is a

significant relationship between stress management and the stability of blood pressure in elderly people with hypertension. Most elderly people carry out stress management (73.8%) and most of the pressure is in the stable category (84.1%)(3).

Stress management is a way to prevent and deal with stress so that it does not reach the most severe stage. The implementation of stress management goes through several stages, namely: Session I Introduction: introduction, explanation of objectives, screening, informed consent, and collection of characteristic data and pre-tests of knowledge and attitudes towards management of hypertension; Session II Management Hypertension: understanding, purpose, diet, exercise, medication, pressure monitoring; Session III Stress Management: assessment and addressing sources of stress problems, stress management techniques; Session IV Evaluation and follow-up: evaluating the results and plan for follow-up.

Methods

This study was conducted in two elderly groups, PosbinduRw 07 Ciwaringin and Posbindu RW 05 Menteng, Bogor City. Stages of stress management activities in elderly hypertension are carried out as follows:

1. Session I Introduction: introduction, explanation of purpose, screening, informed consent, and collection of characteristic data and pre-tests of knowledge and attitudes towards the management of hypertension.
2. Management II Session Hypertension: understanding, purpose, diet, exercise, medication, blood pressure monitoring with lecture and discussion methods.
3. Session III Stress Management: stress handling techniques, video discussion and screening, and doing stress management techniques twice.
4. Session IV Evaluation and follow-up
The implementation of stress management begins with a pre-test of hypertension and stress management: deep breathing techniques and progressive muscle relaxation and post-test.

Results

Table 1. Characteristic elderly Hypertension by sex

	Partner I		Partner II	
	n	%	n	%
Male	5	18,5	3	14,3
Female	22	81,5	18	85,7
Total	27	100	21	100

Most of the elderly who participated in this activity were women (81.5% - 85.7%).

Table 2. Characteristics of Elderly Hypertension according to age

Characteristics	Partner I	Partner II
Age Average	61	56
Lowest age	38	35
Highest age	74	75

Elderly hypertension who take part in this activity are between 35 and 75 years old. Average age at partner I (RW 7 Ciwaringin Village) 61 years and partner II (RW 5 Menteng Village) 56 years old.

Table 3. Elderly Blood Pressure Befor and After Activities

Blood Pressure	Partner I		Partner II	
	Sys	Dis	Sys	Dis
Pre	149	91	147	94
Post	137	84	133	85

The average elderly diastolic blood pressure in partners I and II is 91 and 94. After the activity ends, the average systolic blood pressure of elderly in partners I and II is 137 and 133, the average elderly diastolic blood pressure in partners I and II are 84 and 85.

Table 4. Elderly Hypertension Stress Score Before and After Activity

Stress Score	Partner I	Partner II
Pre	14	14
Post	12	14

Before the activity, the stress score for elderly hypertension in partner I and II is 14. After the activity ends, the stress score for elderly hypertension in partner I and partner II.

To examine the effect of progressive muscle relaxation exercises to decrease blood pressure for patient with primary hypertension. Quasi experimental study with one group pre test and post test design involved 15 adult patients with age range 34

-70 years old. Progressive muscle relaxation exercises effect to decrease in systolic blood pressure for patients with primary hypertension, whereas diastolic blood pressure showed no different effect (4).

There was significant effect of progressive muscle relaxation on decreasing systolic blood pressure ($p=0.00$) but not for diastolic blood pressure ($p=0.39$). The progressive muscle relaxation effective to decrease blood pressure on hypertensive patient (5).

Progressive Muscle Relaxation Therapy is effective in reducing the stress level of the staff nurses. The findings of the study revealed that in pre test most of the nurses 53.3% had moderate stress, 40.0% had mild stress and 6.7% had severe stress. In post test most of the nurses had mild stress 73.3 % and no stress 26.7 % (6).

Stress is a non-specific response from the body to each stimulus (6). Stress management is a way to prevent and overcome stress so that it does not reach the most severe stage. Effective work stress management can maintain a sense of self-control so that some affairs will be accepted as challenges, and not threats.

Stress can cause various diseases in humans such as cardiovascular disorders, back pain, headaches and decreased immunological function and cancer. If stress is not quickly

addressed or managed, it will have a further impact especially for the elderly hypertension who are currently experiencing a degenerative phase.

Conclusions

It is necessary to increase preventive and promotive efforts for the elderly hypertension to maintain their health status to avoid the risk of complications such as heart disease and stroke. It is expected that the application of stress management can help elderly hypertension manage stress. Training of health cadres can increase knowledge about management of hypertension.

Competing interest

The Authors of this paper have no competing interest to report.

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