

EDUCATION ON THE APPLICATION OF SAMAVRITTI YOGA TO ELDERLY PEOPLE SUFFERING FROM HYPERTENSION AT POSYANDU CEMPAKA PUTIH KEDUNGANYAR VILLAGE

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Abstrak

Sepuluh masalah kesehatan lanjut usia, dimana masalah terbanyak pada Lanjut Usia adalah Penyakit Tidak Menular (PTM) antara lain hipertensi. Hipertensi merupakan salah satu faktor resiko utama kardiovaskuler dimana merupakan penyebab utama dari kematian masyarakat dunia. Salah satu cara selama ini untuk mengatasi adalah dengan cara mengurangi konsumsi garam atau membawa ke rumah sakit bila tekanan darah tidak berkurang. Akan tetapi, bagaimana jika keluhan itu sering kambuh karena faktor psikologis yang menjadi faktor penyebabnya. Upaya untuk kenyamanan, pengurangan keluhan dan penurunan tekanan darah untuk lansia dengan hipertensi harus dibuatkan metode untuk memudahkan mengingat apa yang sudah diajarkan. Tujuan pengabdian ini untuk memberikan alternative penanganan lansia dengan hipertensi melalui Edukasi Penerapan Samavritti Yoga Pada Lansia Yang Menderita Hipertensi. Subyek pengabdian ini adalah lansia yang mengalami keluhan kaki sebanyak 30 lansia, Kegiatan ini dilakukan dengan mengajarkan cara Breathing Exercise (samavritti Yoga) pada lansia dengan hipertensi melalui pendampingan latihan bagaimana nafas yang benar, bagaimana menenangkan diri. Pendampingan pada lansia yang mengalami hipertensi dalam jangka waktu 1 bulan (juni – juli 2023) dengan menerapkan edukasi penerapan Samavritti yoga Untuk media edukasi pada lansia yang mengalami hipertensi. Dari kegiatan ini didapatkan perbandingan tingkat pengetahuan tentang penurunan hipertensi sebelum adanya metode edukasi dengan samavritti yoga dan setelah diberikan edukasi, terjadi kenaikan signifikan pengetahuan tentang samavritti yoga dengan nilai $p=0.000 < 0.05$. Penerapan edukasi samavritti yoga untuk menangani hipertensi dan upaya penanganan masalah keluhan tersebut mampu menambah pengetahuan dan penurunan tekanan darah.

Kata kunci: Edukasi, Samavritti Yoga, Lansia, Hipertensi

Abstract

Ten health problems of the elderly , where the most common problem in the elderly is non-communicable diseases (NCDs), including hypertension. Hypertension is one of the main cardiovascular risk factors which is the main cause of death in the world's population. One way to overcome this is by reducing salt consumption or taking him to the hospital if blood pressure does not decrease. However, what if the complaint often recurs because psychological factors are the cause. Efforts to ensure comfort, reduce complaints and reduce blood pressure for elderly people with hypertension must create methods to make it easier to remember what has been taught. The aim of this service is to provide an alternative treatment for elderly people with hypertension through education on the application of Samavritti Yoga to elderly people suffering from hypertension . The subjects of this service were 30 elderly people who experienced leg complaints. This activity was carried out by teaching Breathing Exercise (samavritti Yoga) to elderly people with hypertension through accompanying exercises on how to breathe properly, how to calm themselves. Assistance for elderly people who experience hypertension for a period of 1 month (June – July 2023) by implementing education on the application of Samavritti yoga as an educational medium for elderly people who experience hypertension. From this activity, a comparison of the level of knowledge about reducing hypertension was obtained before the educational method with samavritti yoga was provided and after the education was provided, there was a significant increase in knowledge about samavritti yoga with a value of $p = 0.000 < 0.05$. The application of samavritti yoga education to treat hypertension and efforts to deal with complaints can increase knowledge and reduce blood pressure

Keywords: Education; Elderly, Hypertension, Samavritti Yoga

INTRODUCTION

As the number of elderly people in Indonesia increases, the problem of disease due to the aging/degenerative process also increases. Problems that require special attention for the elderly are related to the ongoing process of aging, which results in physical, cognitive, emotional, social and

sexual changes (Agustina, 2014). Ten health problems of the elderly, where the most common problem in the elderly is non-communicable diseases (NCDs), including hypertension. Hypertension is one of the main cardiovascular risk factors which is the main cause of death in people around the world (Alifariki, 2015, 2019; Taiso et al., 2021). WHO defines hypertension as persistent blood pressure where the systolic blood pressure (SBP) is ≤ 140 mmHg and the diastolic blood pressure (DBP) is ≥ 90 mmHg in 2 blood pressure measurements (IP Sudayasa & Alifariki, 2020; I Putu Sudayasa, Alifariki, et al., 2020). In Indonesia, the prevalence of hypertension continues to increase, this is due to increasing Life Expectancy (UHH) both globally and nationally. This can be seen from the increasing number of elderly people in Indonesia. According to statistics bureau data, the percentage of elderly people in Indonesia is 9.6% of the total population or around 25.64 million people. The results of these data projections indicate the need for special attention to the elderly considering that hypertension is very dangerous for the elderly and those who are at risk groups/populations (Ministry of Health of the Republic of Indonesia, 2018). The most common health problem suffered by the elderly is hypertension. Hypertension is in first place with the most problems experienced by the elderly, followed by arthritis, diabetes mellitus, heart disease and stroke (Dosoo, DK, 2019; Tymejczyk et al., 2019). Hypertension is called the silent killer, where the elderly are at the highest risk of developing hypertension. Hypertension has several factors that can be a risk for developing hypertension, such as family history, smoking habits, the habit of eating fatty foods, lack of body activity, and high sodium intake (Noventi, 2019). Elderly people often do not know that they suffer from hypertension and only find out after examination for other diseases or after damage to the organ system. Organ damage is the target due to large increases in blood pressure that are uncontrolled and do not receive treatment in grade 1 hypertension and grade 2 hypertension which have the highest risk of complications and permanent disability, so it is necessary for sufferers to control their blood pressure (Rohkuswara & Syarif, 2017), (Alifariki, 2019)

One way to overcome this is by reducing salt consumption or taking him to the hospital if blood pressure does not decrease. However, what if the complaint often recurs due to psychological factors that are the cause. There are many actions to overcome the problem of hypertension in the elderly, but both the elderly and their families only focus on improving physical factors, diet and medication. The solution method used is to overcome hypertension complications or an effort to reduce blood pressure in the elderly is to provide education on the application of Breathing Exercise using the Samavritti yoga method. Sama Vritti is one of the most basic forms of pranayama that focuses on the idea of "equal" breath, meaning that inhalation and exhalation last for the same amount of time. This breathing can reduce stress and anxiety quite quickly. Pranayama breathing exercises affect the hypothalamic-pituitary-adrenal axis (HPA axis or HTPA axis). HPA access is a term that describes a series of interactions that occur between three different endocrine glands : the hypothalamus, adrenals, and pituitary. Together, the glands that make up the HPA regulate digestion, the immune system, sexuality, emotions and mood. The effect of training carried out during 4 meetings can reduce psychological problems in elderly people with hypertension (Noventi, 2022). Based on the description above, the author aims to provide education on the application of the Samavritti Yoga Breathing Exercise which can be useful for elderly people with hypertension problems and improve the quality of life for the elderly. Apart from that, this community service activity is an effort to carry out MBKM activities by implementing IKU 2, 3, 5, namely giving students the opportunity to gain experience outside the campus (IKU2 application), lecturers to carry out activities outside the campus through community service (IKU3 application), the ideas of University Personnel in this case, helping to solve problems that exist in society through Samavritti yoga education can provide benefits for the elderly (implementation of IKU 5).

Posyandu for the elderly in Cempaka Putih Kedunganyar Surabaya is located in Sawahan District, Surabaya, with a total of 95 elderly people and 58 elderly people who suffer from hypertension. Even though the level of severity and disability is relatively low in the elderly at the Posyandu, all hypertension prevention and management measures are still not optimally implemented by both the elderly and their families to improve the quality of life of the elderly. Several activities have been carried out by the Community Health Center through Posyandu for the Elderly activities, one of which is routine exercise which is carried out every two weeks and counseling. However, because the posyandu is only held once a month and only for the elderly without having to be accompanied by their families, the elderly do not know that stress factors can make it difficult for their blood pressure to decrease. As a result of this condition, elderly people do not maximize their efforts if increased blood pressure appears again and interferes with their daily activities. So the elderly make less effort

psychologically which results in increased blood pressure. With the emergence of problems, especially hypertension, experienced by the elderly at the Cempaka Putih Posyandu, the strategy for dealing with hypertension in the elderly is education on the application of Samavritti yoga as an effort to overcome stress, which in this activity teaches relaxation with breathing exercises .

METHOD

Preparation phase

1. Implementation Strategy Meeting The implementation strategy meeting will be chaired by the chief executive to discuss the strategy and planning of the community service program being implemented
2. Location Survey The survey is carried out no later than one day before the activity is carried out to arrange the layout of equipment and form of activity.
3. Preparation of Facilities and Infrastructure
 - a. Borrowing of Cempaka Putih Posyandu premises to socialize the implementation of Samavritti Yoga
 - b. Preparing a place for socializing the implementation of Samavritti Yoga Implementation stage

The activity implementation stage is the main stage of the community service program. The target of the activities at the implementation stage is the elderly at the Cempaka Putih Posyandu, Sawahan Village, Surabaya, divided into 3 activity stages. The implementation distribution is as follows:

1. The first stage is outreach about hypertension and its treatment to the elderly, their families and elderly cadres. It is hoped that the involvement of family and cadres can help provide care and treatment while at home.
2. The second stage is the application of Samavritti Yoga simultaneously and can then be done independently at home with the guidance of the application that has been created.
3. The third stage is providing assistance on how to use the application with family and cadres who will later accompany you at home.

Evaluation stage

The implementation evaluation stage is the final stage of the community service program, in this stage an evaluation and activity report will be carried out. Evaluation is carried out before and after the activity through questions and answers and health developments after therapy. Before the activity, the aim was to find out the initial complaints of elderly people who had complaints of hypertension and had a previous history. And after the activity to find out how much the physical and psychological condition of the elderly has improved with video guidance.

RESULTS AND DISCUSSION

Results achieved from implementing the Samavritti Yoga Educational Breathing Exercise community service program for elderly people with hypertension problems as a medium to increase participants' knowledge about handling elderly people with hypertension after socialization. in Kedung Anyar Surabaya are as follows:

1. Table: Elderly table based on age, gender and level of hypertension

Table 1. Distribution of elderly by age

Age	n	%
45 - 59	15	50
60 - 74	12	40
75 – 90	3	10
≥ 90	0	0
Total	30	100

Source: primary data (2023)

Table 2. Distribution of elderly by gender

Gender	n	%
Man	8	27

Woman	22	73
Total	30	100

Source: primary data (2023)

Based on the table above, the majority of elderly people are 45-59 years old, 18 (50%), the largest gender is female, 22 (73%).

Table 3. Differences in blood pressure before and after implementation of Samavritti Yoga education for elderly people who experience hypertension in Kedung Anyar Surabaya.

Blood pressure	f	%
Before Normal	0	0
Light	10	35
Currently	20	65
Heavy	0	0
Total	30	100
After Normal	0	0
light	15	75
currently	5	25
Heavy	0	0
Total	30	100

Source: primary data (2023)

Table 4. Analysis of systolic blood pressure before and after carrying out Samavritti Yoga Education

Paired Sample Test				
Before - After	Mean	sd	Df	Sig.(2-tailed)
	161	149	30	0.013

Table 5 Analysis of diastolic blood pressure before and after carrying out Samavritti Yoga Education

Paired Sample Test				
Before - After	Mean	sd	df	Sig.(2-tailed)
	83	79	30	0.037

Based on table 3, the paired t test TDS Pre-posttest obtained a value of $p=0.013$ ($p \leq 0.05$). This shows that Samavritti Yoga is effective in changing TDS. Meanwhile, in table 4, the paired t test TDD Pre-posttest obtained a value of $p=0.013$ ($p \leq 0.05$). This shows that Samavritti Yoga is effective in changing TDS.

2. Picture

The results of this community service show that those who experience hypertension in the elderly are in the age group 45 - 59 years, with a presentation of 50.0 %. Nugroho (2000) stated that cardiovascular changes in the elderly include thickening of the heart valves, the ability to pump blood decreases by 1% each year, which results in decreased contractions and volume, thereby increasing vasoconstriction of blood vessels and the risk of hypertension. Age is a risk factor for hypertension that cannot be controlled, so that the older you get, the risk of hypertension will increase, but blood pressure can be controlled by pharmacological and non-pharmacological methods such as physical activity, relaxation and reducing or avoiding stressors. Hypertension problems are also more common among elderly women, with a presentation of 73%. Woman with age over 45 years or those who have experienced menopause are at risk of developing hypertension, so that at the age of 65 years, the incidence of hypertension in women is higher (Tambayong 2000). Blood pressure can be controlled by pharmacological and non-pharmacological methods such as physical activity, relaxation and reducing

or avoiding stressors. An elderly person who took part in samavriddhi yoga was happy because he could exchange ideas with researchers and other elderly people so he felt appreciated. The feeling of happiness felt by the elderly has an effect on reducing stressors which have a relaxing effect on blood vessels due to a decrease in cortisol which causes the release of endorphins. A positive response from feelings of calm and comfort through the HPA axis will stimulate the hypothalamus. The hypothalamus will reduce the secretion of CRH (Corticotropin Releasing Hormone) so that ACTH (Adrenocorticotrophic Hormone) decreases and stimulates POMC (Pro-opimelanocortin) which also reduces the production of ACTH and cortisol and stimulates endorphin production. Endorphin hormones will be produced and secreted by the anterior pituitary when it shows alpha activity, namely when conditions are peaceful, calm and relaxed. Endorphins cause vascular dilation (Isselbacher et al.1999) and keep blood flowing easily and unimpeded (Haruyama, 2011). Decreased ACTH and cortisol and increased endorphins will reduce peripheral resistance and cardiac output, thereby affecting blood pressure.



Gambar 1. Samavriddhi Yoga Breathing Exercise training

CONCLUSIONS AND SUGGESTIONS

The application of the Samavriddhi Yoga Breathing Exercise education for elderly people with hypertension problems can improve the quality of life of the elderly at the Cempaka Putih Kedunganyar Posyandu elderly as evidenced by the reduction in blood pressure in elderly people with hypertension after the Samavriddhi Yoga Breathing Exercise assistance

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