

Knowledge Level of Elderly with Diabetes Mellitus, Hypertension Against Covid-19 Vaccine in Panti Griya Jannati, Gorontalo City

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Abstract. *Elderly people are people whose biological systems undergo structural and functional changes due to advanced age. These changes can take place smoothly so that they do not cause disability or can occur very real and result in total disability. Hypertension is a silent killer where symptoms can vary in each individual and are almost the same as the symptoms of other diseases. Diabetes mellitus (DM) is a disorder of carbohydrate, lipid, and protein metabolism with various causes and is a chronic disease. A person with diabetes has high blood glucose levels, also known as hyperglycemia. The purpose of this community service is so that the elderly can increase their knowledge about hypertension and diabetes mellitus against the covid-19 vaccine. From the results achieved with this activity, the orphanage is very supportive and gives thanks to the Muhammadiyah University of Gorontalo in conducting outreach education in the form of leaflets and banners. The conclusion of this community service is that counseling can increase knowledge about hypertension and diabetes mellitus against the covid-19 vaccine.*

Keywords: *Elderly Hypertension, DM, Covid 19 Vaccine*

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INTRODUCTION

Elderly people are people whose biological systems undergo structural and functional changes due to advanced age. These changes can be smooth so that they do not cause disability or they can be very real and result in total disability. Aging in the biological aging process is a continuous time-related process and generally reflects chronological age but is highly variable and individual, with changes that can take place smoothly so that it does not cause disability or can occur very real and result in total disability.

Hypertension is a silent killer where symptoms can vary in each individual and are almost the same as the symptoms of other diseases (Sukmaningtyas & Utami, 2020; Rao, 2020). The prevalence of hypertension in Indonesia based on measurement results at age 18 years is 25.8. If the current population of Indonesia is 252,124,458 people, then there

are 65,048,110 people who suffer from hypertension. Most (63.2%) cases of hypertension in the community are undiagnosed.

Diabetes mellitus (DM) is a disorder of carbohydrate, lipid, and protein metabolism with various causes and is a chronic disease (Zatalia & Sanusi, 2013; Bastaki, 2005; Tripathi & Srivastava, 2006; Akinmoladun et al., 2014). A person with DM has high blood glucose levels or is called hyperglycemia (Wisudanti, 2016). Diabetes caused 1.5 million deaths in 2012. Blood sugars higher than the maximum result in an additional 2.2 million deaths, increasing the risk of cardiovascular and other diseases. Forty-three percent (43%) of these 3.7 million deaths occurred before the age of 70. The percentage of deaths from diabetes occurring before the age of 70 is higher in low- and middle-income countries than in high-income countries. Environmental factors and unhealthy lifestyles, such as overeating, fat, lack of activity and stress play a very large role as a trigger for diabetes mellitus. In addition, diabetes mellitus can also arise due to hereditary factors.

One in ten adults in the world has high blood pressure, or in the medical term, hypertension. The World Health Organization (WHO) calls high blood pressure a "widespread epidemic". The United States is the country with the highest hypertension rate. About 25,000 deaths and more than 1.5 million heart attacks and strokes occur each year. However, once detected, usually this disease can be controlled effectively. Doctors estimate that 23 million people in the United States have high blood pressure. Half of them are not aware of the existence of the disease. Many of them are aware but not treated effectively. High blood pressure is also asymptomatic and is considered a "time bomb ready to explode" in the body (Wade, 2016).

In Indonesia, the elderly population is projected to experience a significant increase, where in 2010 the number of elderly people was 18.04 million, in 2020 there were 27.09 million people and it is estimated to reach 40.96 million people in 2030. In the current pandemic era, the elderly are one of the age groups that According to data released by the Task Force for the Acceleration of Handling Covid-19, more than 45% of Covid-19 patient deaths in Indonesia are experienced by people aged over 60 years. This age group is experiencing the most impact from the corona virus infection.

One of the basic problems is health problems due to degenerative processes so that the elderly often experience health problems such as rheumatism/arthritis, hypertension, osteoporosis, gout, diabetes mellitus, stroke, hypercholesterolemia, dementia, and nutritional problems (over nutrition, undernutrition, anemia, constipation etc.) that will affect the quality of life and overall health status of the elderly. One of the factors that play a role in improving the quality of life of the elderly is nutritional intake (Damião et al., 2018; Barr et al., 2000).

The elderly need nutrient intake from all elements of plants and animals to carry out metabolism, maintain nutritional status and survive (Azzolino et al., 2020; Richardson & Lovegrove, 2021). Providing good nutrition in a pandemic condition for the elderly is a way to keep body cells active and will support the improvement of the elderly's immunity, while poor nutrition due to insufficient energy and macronutrient intake or specific micronutrient deficiencies will interfere with the immune system in its protective function and inhibit the response. Immunity and increase the risk of infectious diseases in the elderly.

RESULTS AND DISCUSSION

The mechanism for implementing community service activities includes the following stages: (1) Division of community service groups; (2) Consultation with the head of the Griya Lansia Jannati panti; (3) Preparation of tools and materials for outreach activities.

Preparation and counseling materials for students include: (1) Preparation of counseling materials to be given; (2) The implementation mechanism in the form of methods that will be used in counseling the provision of material about the level of knowledge of the elderly with diabetes mellitus, hypertension on the covid-19 vaccine; (3) Doing Q&A; (4) Documentation of activities

The form of community service activities that will be carried out by the extension worker is material about the knowledge of the elderly about people with diabetes mellitus, hypertension to the covid-19 vaccine. The method of activities carried out is the percentage with the help of leaflets, banners, lectures and discussions with documentation, materials and attendance lists.

The implementation of this service is carried out on Tuesday 27 April 2021. The stages of achieving the target results are described according to a sequence of implementation methods with several modifications according to field conditions.

Lecturers and students held a meeting with the head of the Griya Lansia Jannati orphanage, preparing for the placement of service students and other necessary matters regarding the situation and condition of the Griya Lansia Jannati orphanage.

The results achieved by this activity, the orphanage school is very supportive and gives thanks because the Muhammadiyah University of Gorontalo, especially the Department of Nursing in carrying out this activity, all series of activities have been carried out with achieving good results because there are 10 students who are willing to follow the counseling and in accordance with report evidence of activities carried out.

CONCLUSION

From the series of community service activities for lecturers and students, it can be concluded that: Increasing knowledge of the elderly about hypertension and diabetes mellitus on the impact of the covid 19 vaccine. Efforts to improve public health status through increasing elderly knowledge about degenerative diseases so that they can reduce morbidity and mortality in the elderly

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