Inovasi Lokal
Pemberdayaan Masyarakat dalam Pembangunan Berkelanjutan
TARQABIN NUSANTARA GROUP
Inovasi Lokal: Keberdayaan Masyarakat dalam Pembangunan Berkelanjutan, Vol 1 Issue 1 2023
E-ISSN : 3024-9716

Improving The Quality of Life of The Elderly Through Body Mass Index Screening in Malang

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ABSTRACT

The welfare of the elderly can be reflected through their health conditions, both physically, spiritually, and socially, which allows everyone to live a productive life socially and economically. Modern lifestyles have changed human attitudes and behaviors, including diet, smoking, alcohol consumption and drugs as a lifestyle so that patients with degenerative diseases (diseases due to decreased organ function) are increasing and threatening lives. The purpose of this community service is to screen the Body Mass Index (BMI) the elderly. The methods used are measurement and examination as well as providing education. The methods used are measurement and examination as well as providing education. The method of measuring Body Mass Index and counseling about healthy lifestyles for the elderly in Malang. The results of the screening conducted, of the 55 participants who took part in the examination, found 19 people were often active, 11 people experienced problems related to physical activity with infrequent activity, and 15 people experienced problems very rarely active. This community service runs smoothly and can provide benefits to the community. The results of this community service can be used as a reference for improving the health status of the elderly.

KEYWORDS

Elderly, Quality of Life, Physical activity.

Received: 05February 2023
Revised:04 April 2023
Accepted:15 June 2023

How to cite: *Masfi, Achmad, et al. (2023). Improving The Quality of Life of The Elderly Through Body Mass Index Screening in Malang. Inov Lokal Keberdayaan Masy dalam Pembang Berkelanjutan. 1(1): 17-26.*

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INTRODUCTION

An elderly person is someone who has reached the age of 60 years and above. The elderly are a vulnerable age group. In this age range, the risk of developing degenerative diseases such as hypertension, diabetes mellitus, osteoporosis, and joint disease is increasing. Generally, the increase in the incidence of these diseases tends to increase with age so that it is more experienced by the elderly (Yunita et al., 2023). The process of increasing age is closely related to the decline in organ function due to the reduced ability of cells to regenerate and maintain their structure. This will reduce the quality of life of the elderly so that it is necessary to have an elderly health monitoring facility that can improve and maintain the health status of the elderly (Y. M. Putri et al., 2023).

In 2021, there are eight provinces that are included in the old population structure, namely the percentage of the elderly population is greater than ten percent. The eight provinces are DI Yogyakarta (15.52 percent), East Java (14.53 percent), Central Java (14.17 percent), North Sulawesi (12.74 percent), Bali (12.71 percent), South Sulawesi (11.24 percent), Lampung (10.22 percent), and West Java (10.18 percent) (Nafisyah, 2023).

The welfare of the elderly can be reflected through their health conditions. Health is a state of good physical, spiritual, and social health that allows everyone to live a productive life socially and economically. In 2021, 42.22 percent of the elderly experienced health complaints in the past month, half of whom (22.48 percent) experienced interference with daily activities or illness (Spoorenberg et al., 2015).

Reports from the WHO show that non-communicable diseases are by far the leading cause of death in the world, representing 63% of all annual deaths. Non-communicable diseases kill more than 36 million each year. Cardiovascular disease causes the most deaths at 17.3 million people per year, followed by cancer (7.6 million), respiratory diseases (4.2 million), and DM (1.3 million). These four disease groups account for about 80% of deaths from non-communicable diseases. Non-communicable diseases are known as diseases that cannot be transmitted from one person to another. There are four main types of non-communicable diseases, namely cardiovascular disease, cancer, chronic respiratory disease, and diabetes. Modern lifestyles have changed human attitudes and behaviors, including diet, smoking, alcohol consumption and drugs as a lifestyle so that patients with degenerative diseases (diseases due to decreased organ function) are increasing and life-threatening (Tseng et al., 2020).

Factors that play a role in the occurrence of non-communicable diseases include risk factors that cannot be controlled and risk factors that can be controlled. Uncontrollable risk factors such as heredity, gender, age (Budreviciute et al., 2020). Meanwhile, risk factors that can be controlled are obesity, lack of exercise or physical activity, smoking, drinking coffee, education, occupation and diet (Noble et al., 2015). The elderly population in Indonesia is predicted to increase higher than the world's elderly population after 2010. The results of population projections 2010-2035, Indonesia will enter an aging period, where 10% of the population will be aged 60 years and over. As age increases, physiological functions decrease due to the aging process so that many non-communicable diseases appear in the elderly. In addition, degenerative problems reduce the body's immune system, making it vulnerable to infectious diseases (Saeed et al., 2016).

One of the factors that affect the quality of life and health of the elderly is the limited access of the elderly to health services. In addition, the lack of information obtained by the elderly regarding the importance of health checks is one of the causes of increasing elderly health problems in the community. Therefore, it is necessary to carry out community service activities in the form of elderly health checks. Based on this, we are interested in doing community service in Malang.

MATERIALS AND METHODS

The implementation of this community service is in the form of screening Body Mass Index for Non-Communicable Diseases in the Elderly. The method used is measurement and examination as well as education. The examination of non-communicable disease was carried out onSunday, May 28, 2023. This community service was carried out in Malang.

The method of checking the Frequency of Physical Activity and educating about healthy lifestyles. In addition, the elderly were also asked to fill out a form related to the completeness of the Physical Activity Frequency screening data. The implementation of this community service was carried out by a team of 8 lecturers who were assisted by Posyandu Cadres.

This activity was carried out through several stages as follows:

1. Taking care of licensing at the Head of the Hamlet
2. Collaborating with health cadres in the village
3. Make announcements to senior citizens in the village
4. Prepare refreshments, venue and tools to be used
5. Carry out health checks and consultation/education practices on Non-Communicable Diseases

RESULTS AND DISCUSSION

This community service was carried out on Sunday, May 28, 2023 in Malang. This activity starts at 07.00-11.00 WIB. The main purpose of carrying out this activity is as a means of early detection of health problems in the elderly, especially the presence of non-communicable diseases so that immediate follow-up can be carried out. The intended follow-up is if a health problem is found, the patient is immediately given education and checked to a health facility such as a health center or hospital. However, if the screening results are known to be good or there are no health problems, then education about a healthy lifestyle is carried out. This education aims to increase the knowledge of the elderly about how to maintain good health in daily activities, personal hygiene, fulfill nutritional needs, and so on.

The whole team played an active role in the implementation of this service assisted by female cadres from Posyandu Lestari. Participants in this community service activity were attended by 55 elderly people in the Malang area The series of implementation of this service is as follows:

1. Register participants
2. Fill out the screening form
3. Measure Body Mass Index Frequency
4. Conduct health counseling on healthy lifestyles.

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This community service activity is carried out after healthy gymnastics is held regularly on Sundays. Screening can run smoothly because the preparation is done well, and maximum teamwork, especially with the assistance of cadres.

The results of the screening conducted, of the 55 participants who took part in the examination, found 29 people Normal, 11 people experienced problems related to Body Mass Index with Obesity, and 15 people experienced problems less than normal. Follow-up after the screening results are obtained, if normal results are obtained, the elderly will be given education about healthy lifestyles, rest and activity patterns and advised to check their condition to health facilities such as health centers

The implementation of this community service can be carried out well. This activity is one of the promotive and preventive efforts to detect early health problems in the elderly, especially the problem of non-communicable diseases (Ng et al., 2018). Non-communicable disease (NCD) screening is a form of community participation in early detection Zarrin et al, (2020) monitoring and early follow-up of non-communicable disease risk factors independently and continuously (Oliveira et al., 2020). This activity was developed as a form of early awareness of non-communicable diseases considering that almost all risk factors for non-communicable diseases do not cause symptoms for those who experience them. Risk factors for non-communicable diseases include smoking, consumption of alcoholic beverages, unhealthy diet, lack of physical activity, obesity, stress, hypertension, hyperglycemia, hypercholesterolemia, and following up on risk factors found early on through health counseling and immediate referral to basic health care facilities(Rekawati et al., 2019).

Non-communicable disease screening is one of the public health efforts (UKM) which is oriented towards promotive and preventive efforts in controlling non-communicable diseases by involving the community from planning, implementation and monitoring-evaluation. The community is played as the target of activities, the target of change, the agent of change as well as a resource (Harris et al., 2020). One of the national programs in an effort to improve the degree of public health is the declaration of the GERMAS (Healthy Living Community Movement) program. GERMAS is a systematic and planned action carried out jointly by all components of the nation with awareness, willingness, and ability to behave in a healthy manner to improve the quality of life (Landry et al., 2015). GERMAS nationally begins by focusing on three activities, namely: 1) Doing 30 minutes of physical activity per day; 2) Consuming fruits and vegetables; and 3) regular health checks. This community service activity is one of the efforts in implementing the GERMAS program to improve the quality of life, especially for the elderly.

Quality of life is the extent to which a person can feel and enjoy the occurrence of all important events in his life so that his life becomes prosperous. If a person can achieve a high quality of life, then the individual's life leads to a state of wellbeing, otherwise if a person achieves a low quality of life, then the individual's life leads to a state of ill-being (Sihombing et al., 2023). Wellbeing is one of the parameters of the high quality of life of the elderly so that they can enjoy their old age. According to the WHOQOL Group, quality of life is influenced by physical health, psychological health, social relationships, and environmental aspects. The four domains of quality of life are identified as a behavior, state of being, potential capacity, and subjective perception or experience. If these needs are not met, problems will arise in the life of the elderly that will reduce their quality of life (Wright et al., 2021).

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Gambar 1. Anamnesis and Blood Pressure Checks

Gambar 2. Weight and Height Measurement

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Gambar 3. PCOT examination of blood glucose and blood cholesterol levels

Gambar 4. Health Education

Based on the theory above, well-being is one of the parameters of the high quality of life of the elderly. This well-being can be achieved if the four factors that influence quality of life, such as physical, psychological, social, and environmental factors can achieve a state of well-being. Quality of life is obtained when a person's basic needs have been met and there is an opportunity to pursue enrichment in his life Schalock and Parmenter. According to the results of the study, most respondents had a moderate quality of life. This could be due to the physical, social, and environmental factors of the respondents not leading optimally to a state of well-being. They have not been able to get the maximum value in the four factors that affect quality of life according to WHOQOL (Williams et al., 2019). This condition still requires efforts to improve the quality of life from moderate to high to achieve a prosperous elderly life. Of course, this effort must be carried out thoroughly on the four factors that affect quality of life as described in the theory above.

To achieve quality aging, the following three features must be included: a low likelihood of suffering from an illness or disability due to a particular disease, cognitive and physical functioning, and active involvement in life (Seol et al., 2021). According to Felce and Perry's theory, physical well-being is focused on health. In old age, a person will experience changes in physical, cognitive, and psychosocial life. Optimum aging can be interpreted as the functional condition of the elderly at the maximum or optimal condition, allowing them to enjoy their old age with meaning, happiness, usefulness, and quality (Ng et al., 2018). In accordance with the theory above, overall physical health conditions have deteriorated since a person enters the elderly phase of their life. This is characterized, among other things, by the appearance of various symptoms of diseases that have never been suffered at a young age. Most of the respondents were aged 75-90 years. In general, at this age there are changes in the elderly both psychosocial, physiological, and mental. A well-functioning physique allows the elderly to achieve quality aging. However, the unpreparedness of the elderly to face this situation will have an impact on the low achievement of their quality of life. Poor physical factors will make a person lose the opportunity to actualize himself due to physical limitations. These limitations will hinder the achievement of physical well-being, which in turn will have an impact on low quality of life.

Old age is experienced in different ways. Some older people are able to see the importance of old age in the context of human existence, namely as a period of life that gives them opportunities to grow and develop. There are also older people who view old age with attitudes that range between

passive resignation and rebellion, denial and despair. These elderly become locked in on themselves and thus accelerate their own process of physical and mental deterioration. The process and speed of decline in bodily functions that occurs in these physical changes is very different for each individual despite their age. In addition, in different parts of the body in the same individual, the process and speed of decline varies (Rohmah et al., 2012). It is expected that the elderly can make adjustments to physical changes and declining health.

Physical conditions that are increasingly vulnerable make the elderly feel that their lives are no longer meaningful and despair of the life they are living now. This is one sign of the low quality of life of the elderly there because they cannot enjoy their old age. Therefore, health services for the elderly population demand attention, so that their condition does not get sickly in spending the rest of their lives (Supriani et al., 2021). This is where the importance of the nursing home as a place for maintenance and care for the elderly, in addition to long stay rehabilitation that maintains social life.

Felce and Perry's theory states that psychological well-being includes affect, fulfillment, stress and mental state, self-esteem, status and respect, religious beliefs, and sexuality (Nau et al., 2021). In old age, a person will experience changes in physical, cognitive, and psychosocial life (Wright et al., 2021). The stability of psychological well-being is one of the factors that play a role in improving psychological well-being. Psychological health refers to positive affect, spirituality, thinking, learning, memory and concentration, self-image and appearance, self-esteem, and negative affect (Kaunang et al., 2019). Based on the theory above, psychological well-being is one of the factors that determine the quality of life of the elderly. Psychological factors are important factors for individuals to exercise control over all events they experience in life. Likewise with the elderly (Ulinnuha et al., 2019). The decline in psychological abilities is due to a decrease in physiological functions, for example, decreased hearing function causes the elderly to fail to understand what others are saying, high blood pressure results in intellectual damage to the elderly. Psychological changes stem from the realization of decline and feelings of inferiority when compared to younger people, strength, speed, and skills. In the developmental stage of the elderly, the main developmental tasks are to understand and accept the physical and psychological changes they are experiencing, and to use their life experiences to adjust to the physical and psychological changes (Fahyuni, 2021). Developmental tasks are approved patterns of behavior at various ages throughout the life span (Putri, 2022). The definition is a task that arises at or around a certain period of an individual's life, which if successful will cause a sense of happiness and lead to success in carrying out the next task. However, failure will lead to difficulty in dealing with the next task.

CONCLUSIONS

This community service runs smoothly and can provide benefits to the Malang community. The results of the screening carried out, from 55 participants who took part in the examination, found 29 people Normal, 11 people experienced problems related to Body Mass Index with Obesity, and 15 people experienced problems less than normal.

Acknowledgement

Gratitude is expressed to developer who has for funding the implementation of community service activities and the Head of Hamlet who has given permission and helped provide a place to carry out activities. In addition, thanks to the residents, especially the elderly who participated in this

activity. And we thank the health cadres who have helped so that this community service activity can be carried out well.

Conflict of Interest

The authors affirm that they have no known financial or interpersonal conflicts that would have appeared to have an impact on the research presented in this study.

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