

Community Service Journal of Indonesia 6 (2) (2024):

Doi: <https://doi.org/10.36720/csji.v6i2.725>

EDUCATION ABOUT AGING AND CHAIR EXERCISE TO MAINTAIN ELDERLY MOBILITY

Maria Theresia Arie Lilyana^{1*}, Anindya Arum Cempaka¹

¹Faculty of Nursing Widya Mandala Catholic University Surabaya

***Correspondence:**

Maria Theresia Arie Lilyana

Faculty of Nursing Widya Mandala Catholic University Surabaya
Kalisari Selatan no.1, Laguna City. Kenjeran, Surabaya, East Java 60112, Indonesia
Email: arie@ukwms.ac.id

Received: November, 15th, 2024; **Revised:** -; **Accepted:** November, 21st, 2024

ABSTRACT

Problems in the elderly that often become a concern include immobilization and instability causes aging. This problem can be accompanied by chronic diseases such as Hypertension and Diabetes Mellitus. If it does not receive proper attention and treatment, it can disrupt the quality of life of the elderly. Based on that finding Community service activities are carried out through education about the aging process and the changes that occur with age. The education provided is useful in increasing the knowledge of the elderly as shown by the pre and post results, there is an increase in good knowledge results from 8 people (35%) to 11 people (47%) and low knowledge from 7 people (30%) to 5 people (22%). The physical activity demonstration "chair exercise" was well attended by the participants. This is demonstrated by the participants' active participation in the activity from start to finish and the movements are carried out well according to the guidelines.

Keywords: *Aging, Chair Exercise, Elderly, Immobility*

© 2024 The Authors. Community Service Journal of Indonesia Published by Institute for Research and Community Service, Health Polytechnic of Kerta Cendekia, Sidoarjo
This is an Open Access Article distributed under the terms of the [Creative Commons Attribution-NonCommercial 4.0 \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/), which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms.

E-ISSN
2684-7884
P-ISSN
2774-4027

INTRODUCTION

Related to the reasons underlying the community service activities that have been carried out by the author, as much as possible also included supporting data to strengthen the reasons of the author. The

elderly population tends to increase every year based on data from Central Statistics Agency in 2018 (Hasbi, 2020). The data shows the number of elderly people in 2000 was 14.45 million people (7.18%). Increased on 2020 it became 18.04 million

people (7.46%) and in 2018 it became 18.04 million people (9.27%).

Elderly people tend to experience physical, cognitive, psychosocial and environmental changes which will affect the quality of life of the elderly. The quality of life of the elderly is assessed based on 4 domains, including: physical health, psychological health, social relationships and the environment. Increasing age is accompanied by a decrease in organ function due to an anatomical reduction in the number of cells, lack of activity, nutritional intake increases the vulnerability of the elderly's immune system causing illness (Dian et al., 2021).

Problems in the elderly that often become a concern include immobilization and instability (Duque, 2021). This problem is accompanied by chronic diseases such as Hypertension and Diabetes Mellitus. If it does not receive proper attention and treatment, it can disrupt the quality of life of the elderly. Elderly people also generally experience problems in the form of non-communicable disease such as rheumatism which can cause inability to carry out activities (Syafarisar Meri Agritubella et al., 2023).

Research on the lives of the elderly in the family (Habil & Berlianti, 2023) shows the social, economic and health aspect of the elderly. The social life side illustrates that the interaction between elderly people and their families is good, but the interaction with environment is not good because their condition does not allow to carry out activities. On the socioeconomic the elderly income decreases because they no longer work, so their finances are generally managed and provided by their family. Health generally describes an unfavorable condition due to decrease body function and comorbidities experienced.

Cardiovascular training, muscle strength, flexibility and coordination carried out 3-6 time per week with a duration of 50-60 minutes per session is recommended for the elderly. Regular physical activity carried out by older people is beneficial for: increasing bone density, reducing fat accumulation and body mass index, reducing the risk of cardiovascular disease, cancer and other chronic diseases (Larasati & Boy, 2019). Physical activity such as walking at moderate intensity is safe for the elderly and has the benefit of increasing the fitness of the elderly by reducing body mass composition, active blood vessel tone, flexibility and muscle strength. Chair exercise is the moderate activity that can be an option to improve the elderly because the risk of injury is low, cheap and fun (Junaidi, 2011). Physical activity has a big role for the elderly in their life span so that the elderly remain independent and prosperous.

OBJECTIVES

General Purpose

The aim of the activity to increase the knowledge elderly about health problems causes by aging, and intervention that can be done chair exercise to support their independence and improve their quality life. Output from this activity is an increase the elderly knowledge by assessed from pretest and posttest and their activity when chair exercise was given.

Special Purpose

The purposes of community service activities undertaken to increasing elderly knowledge. Knowledge about the physical changes that occur in the elderly especially musculoskeletal. Intervention that can be implemented to maintain musculoskeletal

ability using “chair exercise” to avoid the risk of fall.

PLAN OF ACTION

Strategy Plan

Community service activity begin with coordinating activities at the St. Vincentius a Paulo priest. The next step is to coordinating with the environmental leader for permission regarding the activities to be carried out and the time activity will be held.

Implementation

The community service activities provided are in the form of education about the changes that occurs due to increasing age. Changes in physical and mental, spiritual, economic and social aspects. This education is provided so that elderly people have awareness of the changes that occur due to aging. This activity was held on October 2024. Assesment of the succes was assesed using pretest and postest questionnaires

The next activity was a demonstration of physical activity that can be done independently to maintain musculoskeletal function. “Chair exercise” is exercise with a chair as a tool adopt from Hutington exercise (Gawler & Hanna, n.d.). Physical activity is useful for maintaning bone, muscles and joints so that the elderly has good balance and reduce the risk of fall.

Assesment of the succes this session is assessed based on activeness during the activity, following the activity from start until finished. The exercise guide is provided in the form of movement modules that can be done starting from warm-up, core training and cool-down for approximately 30 minutes.

Setting

This activity was held at an elderly person’s house which can accommodate around 30 people. Meetings were held twice on October 25 2024 to educate about the changes that occur in the elderly. October 28 2024 for a demonstration of physical activity in the form of “chair exercise”.

Target

The elderly who took part in community service activity were residents of the Bernardus neighborhood at St. Vincentius a Paulo Surabaya. 30 elderly people were recorded in the neighborhood. There are 23 elderly people who actively participate in activities and routinely join gymnastics activities every Saturday morning because they have no physical problems and are communicable.

RESULTS AND DISCUSSION

Community service activity was providing in the form of education about aging and the problems occurs. Chair exercise as the physical activity that can be done independently by the elderly.



Figure 1. Demonstration of Chair Exercise

Education was held on October 25 2024 for approximately 2 hours. Questionnaires were given to assess whether the education provided was understood by the elderly with pre- and post-test questionnaires. The pre-test is

given before the educational activities are carried out for approximately 10 minutes followed by education. Discussion sessions were held after education was provided. Participants actively asked questions during the discussion process. The posttest was carried out on October 28 2024. Success was assessed based on the pre and post test results from the questionnaire given.

Table 1. Participants' Knowledge

	Pretest	Posttest
Good	8 (35%)	11 (47%)
Moderate	8 (35%)	7 (30%)
Low	7 (30%)	5 (22%)
Total	23 (100%)	23 (100%)

There is increasing knowledge after education has given based on that result. Based on research (Prawoto et al., 2023) the knowledge that older people have is useful in increasing their ability to care for themselves and maintain their health status in the future.

"Chair Exercise" was held at the 2nd meeting on October 28 2024 for approximately 2 hours. The activity began with a posttest based on the education that was given on October 25 2024. The activity was followed from start to finish by all participants, participants took part in the activity as a whole actively, every movement was carried out well by the participants.

CONCLUSION

Community service activities are carried out through education about the aging process and the changes that occur with age. The education provided is useful in increasing the knowledge of the elderly as shown by the pre and post results, there is an increase in good knowledge results

from 8 people (35%) to 11 people (47%) and low knowledge from 7 people (30%) to 5 people (22%)

The physical activity demonstration "chair exercise" was well attended by the participants. This is demonstrated by the participants' active participation in the activity from start to finish and the movements are carried out well according to the guidelines.

REFERENCES

- Gawler, S., & Hanna, S. (n.d.). *Chair Based: Home Exercise Programme*.
- Dian, O., Putri, E., Keperawatan, J. I., Dharmas, U., Lintas, I. J., Km, S., Koto, K., Kabupaten, B., Propinsi, D., & Barat, S. (2021). *HUBUNGAN FUNGSI KOGNITIF DENGAN KUALITAS HIDUP LANSIA*. 2(4). <http://undhari.ac.id>
- Duque, G. (2021). Osteosarcopenia: A Geriatric Giant of the XXI Century. In *Journal of Nutrition, Health and Aging* (Vol. 25, Issue 6, pp. 716–719). Springer-Verlag Italia s.r.l. <https://doi.org/10.1007/s12603-021-1640-4>
- Habil, R., & Berlianti, B. (2023). *Kehidupan Ekonomi, Sosial dan Kesehatan Lansia dalam Pengasuhan Keluarga di Lingkungan IV Galang Kota*. 2, 108. <https://doi.org/10.55123/sosmanior.a.v2i1.1764>
- Junaidi, S. (2011). Pembinaan Fisik Lansia melalui Aktivitas Olahraga Jalan Kaki. *Jurnal Media Ilmu Keolahragaan Indonesia*, 1. <http://journal.unnes.ac.id>
- Hasbi, M. U. (2020). Makna Kesejahteraan Penduduk Lanjut Usia di

- Indonesia(Tinjauan Sosiologi Kependudukan dan Kesejahteraan). *HASANUDDIN JOURNAL OF SOCIOLOGY*.
<https://journal.unhas.ac.id/index.php/HJS/article/view/10556/7332>
- Kurnianto, D. (2015). *MENJAGA KESEHATAN DI USIA LANJUT*.
- Larasati, A. N., & Boy, E. (2019). The Impact of Physical Activity in Elderly. In *113 Magna Medica* (Vol. 6, Issue 2).
- Prawoto, E., Komalawati, R., & Novitasari, E. (2023). Pengetahuan dan Sikap Lansia Berhubungan dengan Self Care. *Malahayati Nursing Journal*, 5(9), 3003–3009.
<https://doi.org/10.33024/mnj.v5i9.9164>
- Syafrisar Meri Agridubella, Yoza Misra Fatmi, & Rahimatul Uthia. (2023). Range of Motion (ROM) Exercise Assistance Program and Providing Warm Red Ginger Compresses to reduce Knee Pain for the Elderly in the Melur Community Health Center Work Area. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 7(5).
<https://doi.org/10.31849/dinamisia.v7i5.16454>