

Training and empowerment of health activists on physical activities for optimizing cognitive function in the elderly

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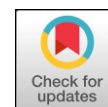
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ABSTRACT

The covid 19 pandemics that hit Indonesia also had an impact on aspects of public health, especially for the elderly. The implementation of physical distancing in an effort to prevent the transmission of Covid 19 will have an impact on discomfort for all individuals, including the elderly. The elderly are forced to be in their respective homes, which cause reduced physical activity so that it can reduce endurance. This service aims to improve the understanding and skills of health cadres about physical activity for the elderly along with the benefits obtained, including body fitness, increased endurance, and optimization of cognitive function in the elderly. The method used is to provide counselling and skills training for cadres in demonstrating the appropriate forms and types of physical activity for the elderly. The target of this service is Health Cadres in Kalimeri Hamlet, Tambakasri Village, T Kerajinan Subdistrict, Malang Regency. The result of the implementation of this community service activity is that there has been an increase in the knowledge or understanding and skills of health cadres about physical activity for the elderly, where the cadres have become more aware of the importance of carrying out physical activity, especially for the elderly and types of physical activity that are suitable for the elderly.



KEYWORDS

Elderly

Cognitive function

Physical activity



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1. Introduction

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS COV-2), and that virus is a new type of coronavirus which has never been previously identified in humans. WHO has designated Coronavirus Disease 2019 (COVID-19) as a Kedaruratan Kesehatan Masyarakat yang Meresahkan Dunia (KKMMD) or Public Health Emergency of International Concern (PHEIC). The elderly are one of the vulnerable groups to the transmission of COVID-19 due to increasing age which causes the body to experience various decreases in function related to the aging process. Almost all organ functions and decreased movement are followed by decreased immunity as body protectors [1]. Efforts to prevent the transmission of COVID-19 that have been implemented for all levels of society, including the elderly such as physical distancing, maintaining hand hygiene, applying cough/sneezing ethics, using masks, restricting outdoor activities, ensuring access to public hygiene in public facilities [2]. The imposition of physical distancing and restrictions on activities outside of the home will have an impact on discomfort for all individuals, including the elderly. The elderly are forced to be in their respective homes, which can reduce physical activity, especially the interactions and social activities that are routinely conducted by the elderly [3]. Reduced physical activity that has been a long time in the elderly can reduce endurance, cause discomfort, boredom, anxiety, depression, and reduce cognitive function in the elderly [4].

Tambakasri is one of the villages located in Tajinan District, Malang Regency. Population data of Kalimeri, Tambakasri Village in 2017 shows that the population aged more than 50 years of 801 people

has increased to second place after the age of 36-49 years of 1,248 people. Kalimeri, Tambakasri Village, as one of the villages affected by the COVID-19 pandemic, has implemented physical distancing and restrictions on outdoor activities for their community. Regular physical activity is needed for the elderly, especially to maintain endurance. Regular physical activity can help maintain bodily functions, which in turn can help optimize cognitive function for the elderly. Elderly people can still do physical activity during the COVID-19 pandemic. Some physical activities that can still be done with fun at home include doing routine exercise at home. Routine exercises are by doing various kinds of exercise for the elderly such as heart exercise, vitalizing brain exercise, tai-chi, osteoporosis exercise, tera gymnastics, doing stretching or stretching movements by holding motion for 15-15 seconds, repetition sitting up and standing, and balance training. The duration of exercise varies between 10-30 minutes with a frequency of 3-5 times a week according to the condition of the elderly [5]. Training and Empowerment of Health Activist carried out by STIKes Panti Waluya Malang is packaged in the form of Community Service Activities and aimed at increasing the understanding and skills of health activists about physical activity for the elderly along with the benefits obtained including body fitness, increasing endurance and optimizing the cognitive function of the elderly. The Community Service Team for STIKes Panti Waluya Malang, in this activity, optimizes the role of elderly health activists because health activists are the extension of the health workers at the health centre (puskesmas). Health activists are local residents who have more understanding and expected to be a motivator so they can able to recognize health problems in the area where they live, With that activities, automatically we have a purpose of making them can help proactively improve the health of the community in the area where they live.

2. Method

The method used in this community service is counselling and interactive discussions. Counselling is an effort given through an educational approach that has the purpose of changing human behaviour. This counselling is also carried out in a planned and directed manner with the active participation of individuals, groups, or communities to solve existing problems. This extension activity is divided into three sessions, as shown in Table 1.

Table 1. The Implementation of Community Service Activities

Method	Activities	Places	Implementation Date	Target
Counselling	Counselling on the Importance of Physical Activity for the Elderly	<i>Kelurahan</i> Office of Tambak Asri	Friday, August 07 2020	Health Activist of Tambak Asri Village
Counselling, demonstrations and interactive discussions	Counselling on the identification of forms and types of physical activity that are suitable for the elderly	<i>Kelurahan</i> Office of Tambak Asri	Friday, August 14, 2020	Health Activist of Tambak Asri Village
Counselling and interactive discussions	Counselling on the Identification of Cognitive Function in the Elderly	<i>Kelurahan</i> Office of Tambak Asri	Friday, August 21, 2020	Health Activist of Tambak Asri Village

3. Results and Discussion

Tambakasri Village is one of the villages located in Tajinan District, Malang Regency. Geographically, the Tambakasri village area is located between 112.3796 to 112.4234 east longitude and 8.0477 to 8.0251 south latitude, with village boundaries as follows; North: Arjowinangun Village, Kedungkandang District, east: Tangkilsari Village, Tajinan District, Sempalwadak Village, Bululawang District, south: Wandanpuro Village, Bululawang District, west: Kendalpayak Village, Pakisaji District. Health activists in Kalimeri, Tambakasri Village, are housewives who are actively involved in health activities, totalling 26 activists. Each activist has a focus on services provided in accordance with the existence of health activists; those are the maternal and child health activist, elderly health activist, health activist for disease

transmission prevention, environmental health, and first aid activist formed when the students of STIKes Panti Waluya Malang practice in the previous community.

The implementation of this service activity is carried out according to the schedule set by the service team with the health activist, which is carried out three times in stages on August 7, 2021, August 14, 2021, and August 21, 2021. In accordance with the target at the beginning of planning, the target of this service activity is the health activist of Kalimeri Village are 50 health activist.



Fig. 1. Demonstration of the Types of Physical Activity in the Elderly

Figure 1 shows that the facilitator is delivering material about the form and types of physical activity suitable for the elderly by using the method of counselling, demonstrations, video screenings and continued by providing opportunities for participants to ask questions. Problem Implementation Activities I, seen in Table 2.

Table 2. Results of Problem Implementation Activities I

Problem Implementation Activities I	
Participants	Health Activist of Tambak Asri Village
Facilitator	Wisoedhanie Widi Anugrahanti, S.K.M., M.Kes Rea Ariyanti, S.Tr.Keb.,M.K.M
Co-Facilitator	2 Students of STIKes Panti Waluya Malang
Place	Kelurahan Office of Tambak Asri
Time	Friday, Agustus 07, 2020 (1x100')
Material	Counselling about the importance of physical activity for the elderly
Method	The facilitator delivers material about the meaning, benefits, types of physical activity, contraindications, factors that affect physical activity for the elderly by using the lecture method and video playback and continues by providing opportunities for participants to ask questions
Success Indicators	Reached (Participants are able to answer questions at the end of the counselling regarding the meaning, benefits, types of physical activity, contraindications, factors that affect physical activity for the elderly)

In the implementation of outreach activities, participants, in this case, were health activists who gave very positive responses. They looked very enthusiastic when receiving the material presented and during interactive discussions. With this community service, the activist has a better understanding of the importance of doing physical activity, especially for the elderly [6]. One of the efforts that can be made to change a person's behaviour is by providing information so that it can increase knowledge and raise awareness that, in the end, the individual will behave according to his knowledge [7]. Problem Implementation Activities II, seen in Table 3.

Table 3. Results of Problem Implementation Activities II

Problem Implementation Activities II	
Participants	Health Activist of Tambak Asri Village
Facilitator	Wisোধhanie Widi Anugrahanti, S.K.M., M.Kes Rea Ariyanti, S.Tr.Keb.,M.K.M
Co-Facilitator	2 Students of STIKes Panti Waluya Malang
Place	<i>Kelurahan</i> Office of Tambak Asri
Time	Friday, Agustus 14, 2020 (1x100')
Material	Counselling on the identification about the forms and types of physical activity that are suitable for the elderly
Method	The facilitator delivers material about the forms and types of physical activity that are suitable for the elderly by means of lectures, demonstrations, video screenings and continued by giving the participants the opportunity to ask questions. Reached
Success Indicator	(Participants are able to answer questions and demonstrate about forms and types of physical activity that are suitable for the elderly at the evaluation stage of extension activities)

After giving information about the importance of physical activity, the next step is to provide an understanding regarding the forms and types of physical activity suitable for the elderly with lectures, demonstrations and also video screenings. The activists also seemed enthusiastic and happy in demonstrating the types of physical activities suitable for the elderly. Attitudes are based on a level of understanding which will then form a thought in taking action [8]. With this community service activity, it is hoped that health activists can transfer the knowledge they get to the wider community so that people can also apply it to their respective families. Problem Implementation Activities III, seen in [Table 4](#).

Table 4. Results of Problem Implementation Activities III

Problem Implementation Activities II	
Participants	Health Activist of Tambak Asri Village
Facilitator	Wisোধhanie Widi Anugrahanti, S.K.M., M.Kes Rea Ariyanti, S.Tr.Keb.,M.K.M
Co-Facilitator	2 students of STIKes Panti Waluya Malang
Place	House of Health Activist of Tambak Asri
Time	Friday, Agustus 21, 2020 (1x100')
Material	Counselling on the Identification of Cognitive Function in the Elderly
Method	The facilitator delivers material on identifying cognitive function in the elderly using the question and answer lecture method followed by providing opportunities for participants to ask questions. Reached
Success Indicator	(Participants are able to answer questions about how to identify cognitive function in the elderly at the evaluation stage of extension activities)

After the service activity is carried out, the service team evaluates the level of understanding of the participants. After the evaluation, it was found that there had been an increase in the participants' knowledge regarding physical activity for the optimization of cognitive function in the elderly. One way of giving information is by providing education that can be carried out by health workers. Education has an important meaning for an individual. An increase in activists' knowledge after training can occur if the material provided is easy to understand [9]. The purpose of the health education that has been given is to improve the community's ability to maintain and improve their health status [10].

4. Conclusion

The implementation of this service consists of three methods, namely counselling, demonstrations, and interactive discussions. The result of the implementation of this community service activity is that there has been an increase in the knowledge or understanding, and skills of health cadres regarding physical activities for the elderly.

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