



Counseling to improve mental health of the elderly community in Kertorejo, Malang Regency

Penyuluhan peningkatan kesehatan mental komunitas lanjut usia di Kertorejo, Kabupaten Malang

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ABSTRACT

Elderly is any person aged 60 years or more, who physically looks different from other age groups. A person experiences some decline in body functions. Mental disorders are also often experienced by the elderly, including stress, depression, and anxiety, so that the elderly have the potential to hurt themselves. Therefore, elderly counseling and elderly exercise are expected to be the solution. The purpose of counseling about physical activity and mental health of the elderly and elderly gymnastics is to improve the mental health of the elderly in Kertorejo Village, Malang Regency, East Java Province. The methods used during the activity are active participation, lectures, question and answer discussions, document searches, and literature studies. The stages of this community service are (1) Data collection of elderly profiles in Kertorejo (2) Counseling on physical activity and mental health of the elderly, (3) Filling out pre-intervention questionnaires, (4) Elderly exercise, and (5) filling out post-intervention questionnaires. The result of this community service activity was a decrease in the level of mental health of the elderly in Kertorejo after the intervention was measured by comparing the results of pre and post intervention questionnaires.

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1. INTRODUCTION

Getting old is a natural process that cannot be avoided. The elderly are individuals who are over 60 years of age. The aging process that occurs in the elderly results in a functional decline in tissues and cells in the elderly body. Therefore, elderly is any person aged 60 years or more, who physically looks different from other age groups.

Generally, everyone will experience the process of getting old as the last period of human life. At this time a person experiences physical, mental, and social setbacks to the point of not doing his daily

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tasks anymore and for most people, old age is less pleasant (Senjaya, 2017). The decline in biological function can be seen from the symptoms of a decrease in physical function and cognitive abilities, which is one sign that a person has entered old age (Dewi et al., 2021).

Based on data from the International Population Demography (Bureau of The Census USA) in 1993, it was estimated that the number of elderly people in Indonesia would increase to 414% in the period 1990-2025. Data from the Indonesian Central Statistics Agency in 2018 states that East Java is one of the provinces that has the highest number of elderly people in Indonesia, which is 12.54% of the total elderly population in Indonesia. Mirroring the previous research, the condition of the elderly in Indonesia is still not paid attention to, one of which is in the aspect of health (Djamhari et al., 2020).

Kertorejo Village is one of the areas in Malang Regency where the population also has a lot of elderly or people aged more than 60 years. The elderly are scattered in several RWs in Kertorejo, with various educational and family backgrounds. The elderly have the potential to have health problems, one of which is mental health problems.

This can occur due to physical, psychological, and social changes in the elderly. Elderly people aged 60 years and over suffer from mental or neurological disorders. 6.6% of the total disability experienced by the elderly aged more than 60 years is mostly associated with mental disorders or neurological disorders. The most common neuropsychiatric disorders in the elderly group are dementia and depression. Anxiety disorders affect 3.8% of the elderly population, drug use problems affect almost 1% of the total elderly population, and almost a quarter of deaths that occur in the elderly are due to self-harm (World Health Organization, 2017).

Based on the description above, it is necessary to have community service related to improving the mental health of the elderly community through counseling and exercise for the elderly in Kertorejo, Malang Regency. The purpose of this community service is to increase mental health activities for the elderly in Kertorejo.

2. METHODS

This activity was carried out at the Kertorejo Pamitraan Hall. The activity lasted for 2 weeks on January 16-29. In the first week (16-19 January 2022), the activities held were introductions and the delivery of program plans by students of the Medical Professional Education Study Program, Ciputra University to partners. In addition, preparations were also made regarding the interventions that will be provided, such as the collection of elderly profile data in Kertorejo to support this community service activity. Then continued the activities carried out namely counseling and exercise for the elderly which aims to improve the mental health of the elderly. Before and after the elderly exercise, respondents were asked to fill out a stress measurement questionnaire to determine the difference in levels of depression, anxiety, and stress before and after the elderly exercise. In the second week (23-29 January 2022), after the activity is completed, a report on the results of the intervention is prepared.

Figure 1 is a poster made by the Ministry of Health of the Republic of Indonesia regarding physical activity, physical exercise, and psychosis for the elderly that is used for counseling. The target of this improvement activity is the elderly in Kertorejo, Malang Regency. The inclusion criteria for the participants of this activity are elderly respondents aged more than 60 years and respondents actively participating in the entire series of events from the 1st to the 3rd day. In this activity there were 20 people from the elderly population in Kertorejo who met the inclusion criteria.



Figure 1. Media for elderly counseling in Kertorejo Village

The methods used during the counseling and exercise activities for the elderly are active participatory, question and answer discussions with the community and agencies, document searches, and literature studies. The indicator of the success of this community service activity is a decrease in the level of mental health of the elderly which is measured through 3 categories, namely depression, anxiety and stress which can be seen from the results of the questionnaires that have been filled out by the respondents before and after the intervention.

The data analysis technique was a comparative technique or comparing the results of filling out the stress measurement questionnaire before and after the intervention was carried out. The questionnaire is a pre and post exercise questionnaire for the elderly using the DASS-42 instrument. In addition, the identification of health problems experienced by the elderly is also carried out through a holistic diagnosis with several aspects. Aspect 1 is the personal aspect related to perceptions, expectations, knowledge, worries. Aspect 2 is clinical diagnosis. Aspect 3 is the aspect of internal factors that interfere with mental and physical health. Aspect 4 is the external risk aspect that interferes with mental and physical health.

Depression, Anxiety, Stress Scales (DASS-42) is one of the instruments used to measure the severity of depression, anxiety, and stress through 42 number of statement items that must be filled out by the client on a scale of 0-3 given to the client. Each category (depression, anxiety and stress) was added to obtain the final score for each category. In the depression category, the final score scale 0-9 is the normal category, 10-13 is mild depression, 14-20 is moderate depression, 21-27 is severe depression, and more than 28 is very severe depression. In the anxiety category, the final score scale 0-7 is normal, 8-13 is mild anxiety, 10-14 is moderate anxiety, 15-19 is severe anxiety, and more than 20 is very severe anxiety. While in the stress category, the final score scale 0-14 is normal, 15-18 is mild stress, 19-25 is moderate stress, 26-33 is severe stress, and more than equal to 34 is very severe stress.

Before the intervention, a pre-survey was carried out as initial data to determine the condition of the elderly in Kertorejo, Malang Regency. The following is an overview of the Kertorejo elderly community.

Table 1. Gender of elderlies in Kertorejo

Gender	Quantity	
	N	%
Male	1	5
Female	19	95
Total	20	100

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Based on data obtained from 20 respondents, the elderly with female sex are more than 95%. While the elderly with male sex as much as 5%.

Table 2. Distribution of residence of elderly respondents based on RT in Kertorejo

RT	Quantity	
	N	%
01	7	35
02	5	25
03	8	40
Total	20	100

Based on the data, the elderly in Kertorejo mostly live in RT 03, which is 40% of the total respondents.

Table 3. Distribution of education level of elderly respondents in Kertorejo

Education Level	Quantity	
	N	%
Did not attend school	1	5
Elementary School (SD)	9	45
Junior High School (SMP)	9	45
Diploma III	1	5
Total	20	100

Based on the data, the majority of respondents received education up to elementary and junior high school with a percentage of 45%, there was only 1 respondent with the highest education level, namely D3 and there was 1 respondent who did not attend school.

Table 4. Distribution of family forms of elderly respondents in Kertorejo

Form of family	Quantity	
	N	%
Single	11	55
Extended	7	35
Nuclear	2	10
Total	20	100

The majority of respondents have a single family form (in one house only one family member lives due to divorce or death) with a percentage of 55%. Other forms of family are extended family (there is a nuclear family plus relatives in one house) with a percentage of 35% and a nuclear family (only the nuclear family lives in one house) with a percentage of 10%. In the results of previous studies, the elderly who live in families with more members tend to experience mental health disorders such as depression. This happens because of problems between the elderly and other family members (Thompson & Shaked, 2009).

Table 5. Distribution of family stages of elderly respondents in Kertorejo

Family Stage	Quantity	
	N	%
Stage 6	5	25
Stage 8	15	75
Total	20	100

The majority of elderly family stages obtained are in the form of Stage 8 (starting with one death or retirement until both are passed away) with a percentage of 75%, while the other stages, stage 6 (starting when the first child leaves the house until the last child, the length depends on the number of children or the number of unmarried children living in the house), has a percentage of 25%.

3. RESULTS AND DISCUSSION

Results

Counseling regarding physical activity and mental health of the elderly

Figure 2 is a documentation of extension activities that have been carried out on January 18, 2022 at the Kertorejo Pamitran Hall. This activity was attended by 20 elderly respondents from Kertorejo village. The counseling material was delivered by students of the Medical Professional Education Study Program, Ciputra University. This activity aims to increase the knowledge of elderly respondents in Kertorejo regarding physical activity and mental health. Knowledge is the basis of a person in making decisions that are used to take action in dealing with problems (Lyong et al., 2020).



Figure 2. Counseling activities regarding physical activity and mental health of the elderly in Kertorejo

The media used in this counseling activity are the Indonesian Ministry of Health posters related to physical activity of at least 30 minutes every day, examples of stretching exercises for the elderly, the benefits of physical exercise, and the Covid-19 Task Force poster related to tips for controlling psychosis in the elderly. The material given to respondents related to physical activity carried out at least 30 minutes per day. Physical activity can improve health and reduce the risk of several diseases, and most importantly it can improve a person's quality of life (Purnama & Suhada, 2019).

In addition, counseling materials are related to the mental health of the elderly. Physiological and psychosocial changes will have the potential to cause health problems, both physical and psychological. One of the psychological problems that often occur in the elderly in conditions of social life is anxiety (Annisa & Ifdil, 2016). *After delivering this material, it is expected that respondents will gain knowledge of psychological conditions in the elderly. When delivering this material, there was a positive interaction between the speaker and the elderly respondents. This is proven with great enthusiasm by asking questions after delivery.*

Pre-intervention questionnaire

Prior to the exercise, respondents filled out a questionnaire with the DASS-42 (Depression Anxiety Stress Scales) instrument. The following are the results of the stress level questionnaire before the elderly exercise in Kertorejo

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Table 6. Results of the elderly stress level questionnaire before the intervention

Scale	Total	
	N	%
Normal	15	75
Mild	2	10
Moderate	3	15
Severe	0	0

Based on Table 6, as many as 15% of the elderly experienced stress at a moderate level. In addition, 10% of the elderly experience mild stress. While as many as 80% of the elderly experience normal condition. The following are the results of the pre-intervention depression level questionnaire.

Table 7. Results of the elderly depression level questionnaire before the intervention

Scale	Total	
	N	%
Normal	14	70
Mild	1	5
Moderate	3	15
Severe	2	10

Based on the results of the questionnaire on the level of depression in the pre-intervention elderly in Table 7, as many as 10% of the elderly experienced severe depression. In addition, as many as 15% of the elderly experienced depression at a moderate level. While as much as 5% of the elderly experienced depression at a mild level. The following are the results of the pre-intervention anxiety level questionnaire.

Table 8. Results of the elderly anxiety level questionnaire before the intervention

Scale	Total	
	N	%
Normal	16	80
Mild	2	10
Moderate	2	10
Severe	0	0

Based on the results of the pre-intervention anxiety level questionnaire in table 8, as many as 10% of the elderly experienced moderate level of anxiety. In addition, 10% of the elderly experience depression at a mild level.

Conducting intervention

After filling out questionnaires on stress, depression, and anxiety levels, respondents were given an intervention. The intervention was carried out in the form of exercise. Elderly exercise is carried out for 5 to 10 minutes 3 times in 1 week, namely on January 18-20, 2022 which is attended by 20 elderly people as shown in Figures 3. The implementation of this elderly exercise was carried out by instructors from students of the Medical Professional Education Study Program. The following is a documentation of exercise activities for 3 days in Kertorejo.



Figure 3. Exercise on the first day until the third day

Post-intervention questionnaire

After the elderly exercise intervention, respondents filled out a post-intervention questionnaire on the third day of elderly exercise. The following are the results of the post-intervention questionnaire (Table 9).

Table 9. Results of the elderly stress level questionnaire after the intervention

Scale	Total	
	N	%
Normal	20	100
Mild	0	10
Moderate	0	10
Severe	0	0

Tabel 10. Results of the elderly depression level questionnaire after the intervention

Scale	Total	
	N	%
Normal	18	90
Mild	2	10
Moderate	0	0
Severe	0	0

Tabel 11. Results of the elderly anxiety level questionnaire after the intervention

Scale	Total	
	N	%
Normal	20	100
Mild	0	0
Moderate	0	0
Severe	0	0

Based on the results of the stress level questionnaire in table 9, as many as 100% or all of the respondents experienced normal condition after the intervention. In addition, based on the results of the depression level questionnaire in Table 10, as many as 90% of respondents experienced normal condition and only 10% of respondents experienced mild depression levels after the intervention. While the results

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of the depression level questionnaire in Table 11, as many as 100% of respondents or all respondents have anxiety at a normal level. In this case, there are no respondents who have mild, moderate, or severe levels of anxiety.

Discussion

Based on the results of the intervention and evaluation of the stress, depression, and anxiety levels of the elderly using the DASS-42 questionnaire, it was found that before the intervention, 10-15% of the elderly in Kertorejo still experienced stress, depression and anxiety disorders. After the intervention, namely physical exercise for the elderly, there was a significant increase in results. The percentage of elderly who experience stress and anxiety has reached 0%, although there are still 2 elderly people who still experience mild depression. This shows that the level of stress, depression, and anxiety in the elderly after an intervention such as elderly exercise has decreased compared to before the intervention.

In previous studies, it was stated that elderly exercise and the stress level experienced by the elderly were related. In addition, exercise will also affect the decrease in stress levels in the elderly (Raden et al., 2015). Elderly exercise has physical, psychological, social and cognitive benefits. Elderly who do exercise will experience an increase in physical fitness, body balance, good for respiratory health, and a decrease in blood pressure. The psychological benefits of elderly exercise are good sleep quality, decreased stress and depression levels and pain management. In addition, elderly exercise will also improve the cognitive of the elderly (Handayani et al., 2020).

Based on the results of interviews with respondents after the intervention, the elderly get several benefits, namely increasing the physical fitness of the elderly, improving sleep and emotional quality, and improving the mood of the elderly because they can gather with friends so they don't feel lonely at home. Physical activity can stimulate the release of endorphins so that feelings of pleasure arise in individuals. In addition, the presence of physical activity can increase the amount of endogenous opioid secretion in the brain which functions in reducing pain and causing euphoria so that it can reduce levels of anxiety and depression (Kowel et al., 2016). This statement is in line with the results obtained from the evaluation of mental health and interventions carried out on 20 elderly respondents in Kertorejo, namely an increase in the degree of mental health of the elderly.

Based on the holistic diagnosis of aspect one, most of the elderly who participate in exercise activities have the hope of staying healthy and preventing the body from getting sick. Some of the elderly expressed that they could participate in socializing with friends in this activity. The majority of the elderly who participated in the exercise program claimed to have no worries in their current life on the grounds of believing in God and having no regrets. However, some of the elderly claimed to be worried about the future of other family members such as grandchildren, afraid of being scolded by their children and worried if they were exposed to diseases that might occur.

Based on the second aspect of holistic diagnosis regarding clinical diagnosis, the majority of Kertorejo elderly do not have health problems. This can be seen from the ability of the elderly to reach the community service location by foot without assistance and actively carry out physical activities. Based on data from the history and blood pressure examination, it was found that most of the elderly had normal blood pressure. This is in line with previous research which states that the physical activity of the elderly affects their blood pressure. The more active the physical activity in the elderly, the more achievable the normal blood pressure will be (Iswahyuni, 2017). Some elderly people who have high blood pressure regularly take hypertension drugs.

Based on the holistic diagnosis of aspect three, the majority of the elderly do not have internal factors that interfere with mental and physical health. The majority of the elderly have their own methods

of dealing with stress, anxiety, and depression such as religious activities, gardening or taking care of grandchildren and other family members. This is in line with previous research, that the elderly are more likely to cope with stress by doing useful or meaningful activities (Rustini et al., 2021). However, some elderly people also admit that they tend to suppress their feelings and cannot control their diet.

Based on the fourth aspect of holistic diagnosis conducted on the respondents, the majority of the elderly do not have external factors that interfere with their mental and physical health. The majority of the elderly have a supportive home and family environment in maintaining mental and physical health. Based on previous research, the elderly who have a supportive social environment will experience happiness (Agustini & Nurhidayah, 2012). The social environment such as the home environment and family. However, some elderly claim to have problems with their children, increasing their stress levels. So, this can cause the level of happiness of the elderly to decrease. This is in line with the results of previous studies that the elderly feel sad when they have problems related to their children (Livana et al., 2018).

4. CONCLUSION AND RECOMMENDATIONS

After the intervention in the form of exercise supported by counseling to the elderly, there was a decrease in the level of mental health of the elderly in Kertorejo Village after which was measured based on the comparison of the results of stress measurements carried out before and after the intervention using the DASS-42 instrument. The advice given is that this elderly exercise activity should be carried out continuously with a longer duration, at least 1 week 1-2 times and carried out in a wider place if possible so as to accommodate a larger number of participants. In addition, it would be better to have mental health counseling activities and health checks including checking blood pressure, blood sugar, cholesterol, and uric acid regularly at least once every month. For the next service, it is better to take an interpersonal approach before the activity to elderly participants, so that in filling out the stress measurement questionnaires are more honest and open in order to obtain more accurate research results.

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