

Strategy For Treating Lower Pain With Exercise Therapy For Elderly In Malaysia

Siti Aisyah¹)*, Supatmi Supatmi²), Firman Firman³), Chlara Yunita Prabawati⁴)

^{1,2,3,4}Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Surabaya

*Corresponding author: sitiaisyah@um-surabaya.ac.id

ABSTRACT

Background: Lower back pain is one of the most common health complaints complained of by the elderly worldwide, including in Malaysia. According to data from the Ministry of Health Malaysia (2018), around 30% to 50% of the elderly population in Malaysia experience chronic pain, including lower back pain. This condition not only affects physical mobility, but can also cause depression, anxiety, and social isolation. **Objectives:** 1.) Increase awareness of migrant elderly in Malaysia, 2.) Increase knowledge of migrant elderly in Malaysia, and 3.) Provide motivation for migrant elderly to always be active in maintaining a healthy lifestyle and overcoming degenerative diseases. Method: the approach method used in this community service is a participatory method with the target being migrant residents aged over 50 years in Malaysia, as many as 20 people. **Conclusion:** providing education related to the benefits of exercise therapy as a strategy to overcome lower back pain in the elderly in Malaysia had a significant impact on increasing knowledge and changing attitudes. This shows that education can improve understanding regarding the treatment of lower back pain through exercise therapy for the elderly.

Keywords: Health Education, Elderly, Lower Back Pain, Sports Therapy

INTRODUCTION

Lower back pain is one of the most common health complaints among the elderly worldwide, including in Malaysia. This pain is often caused by various medical conditions, such as osteoarthritis, osteoporosis, and herniated discs, as well as natural degeneration that occurs with age. In Malaysia, the elderly are a significant group in the population, and lower back pain problems can result in a serious decline in quality of life.

According to data from the Ministry of Health Malaysia (2018), around 30% to 50% of the elderly population in Malaysia experience chronic pain, including lower back pain. This condition not only affects physical mobility, but can also cause depression, anxiety, and social isolation. In the long term, chronic pain can reduce the ability of the elderly to carry out daily activities independently, which in turn can increase the burden of health and social care. This problem certainly requires a solution so that the quality of life of the elderly group improves. Exercise therapy is one of the non-pharmacological interventions that has been identified as effective in reducing lower back pain in the elderly. Various studies have shown that well-designed physical exercise can improve muscle strength, flexibility, and balance, all of which contribute to pain reduction and improved physical function. In addition, exercise therapy can also help improve mental health by reducing symptoms of depression and anxiety that often accompany chronic pain (Zhang, SK, et al, 2023).

Therefore, the Community Service Program (PKM) that focuses on lower back pain treatment strategies with exercise therapy for the elderly in Malaysia is very much needed to address this health problem effectively. With the objectives: 1.) Increasing awareness of migrant elderly in Malaysia, 2.) Increasing knowledge of migrant elderly in Malaysia, and 3.) Providing motivation for migrant elderly to always be active in maintaining a healthy lifestyle and overcoming degenerative diseases. Exercise therapy not only offers a safe non-pharmacological solution, but also helps improve the overall quality of life of the elderly. Through good collaboration between universities, government, and non-governmental organizations, this program can run successfully and provide long-term benefits to the community.

IMPLEMENTATION METHOD

The approach method used in this service is a participatory method. The participatory method is a method that actively involves the community in the course of an activity. This approach is used to obtain permission and support in carrying out service programs in related places.

This community service activity took place at the Special Branch of Muhammadiyah Malaysia. The implementation period for the activity was 4 months, starting from June to September 2024, targeting 20 migrants aged over 50 years in Malaysia.

The implementation of this service goes through several stages, namely:

1. Preparation

Preparations are made so that the activities run smoothly. This preparation includes an initial team meeting, a coordination meeting between the service team and partners to determine the time and place of the activity, and preparation of materials and media for assistance.

2. Implementation

The community service activities were carried out for 4 months (June-September 2024) with 4 meetings. The meeting began with an initial evaluation before the mentoring was given and a final evaluation after the mentoring. It also included a joint discussion and Q&A section on material that was not yet understood by the respondents.

3. Evaluation

Evaluation is done at the end to see if the initial objectives are achieved as an indication of the success of the program. Evaluation is done by comparing the level of pain before and after the assistance is carried out.

RESULTS

1. Respondent characteristics based on gender and age.

Table 1. Respondent characteristics based on gender and age.

Characteristics	n	%
Gender		
Man	7	35%
Woman	13	65%
Total	20	100.0%

Age		
50-59 years	9	45%
60-69 years	11	55%
>70 years	0	0%
Total	20	100.0%

Based on the table above, it is known that the distribution of respondents based on gender characteristics is mostly female, as many as 13 people (65%), while based on age, the majority are aged 60-69 years, as many as 11 people (55%).

2. Description of the distribution of knowledge from pre-test and post-test results after being given education regarding the benefits of exercise therapy as a strategy to overcome lower back pain in the elderly.

Table 2. Overview of distribution of respondents' knowledge levels

Variables	Pre-test		Post-test	
	n	%	n	%
Level of Knowledge				
High	2	10	19	95
Low	18	90	1	5
Total	20	100.0	20	100.0

Based on the table above, the distribution of knowledge levels from the pre-test results showed that most of the respondents' knowledge levels are low, amounting to 18 people (90%). After being given education, the post-test results show that most of the respondents' knowledge levels are at a high level, amounting to 19 people (95%).

3. Description of the distribution of attitudes of the pre-test and post-test results after being given education related to the benefits of exercise therapy as a strategy to overcome lower back pain in the elderly.

Table 2. Overview of distribution of attitude levels

Variables	Pre-test		Post-test	
	n	%	n	%
Attitude Level				
Good	2	10	20	100
Not good	18	90	0	0
Total	20	100.0	20	100.0

Based on the table above, the distribution of emotional support levels shows that the pre-test result was mostly at a less than good level of 25 people (92.5%). From the post-test after being given education, the results showed that most of the respondents' emotional support levels were at a good level of 26 people (96.3%).

DISCUSSION

Health education plays an important role in increasing public awareness, especially in the elderly who experience lower back pain. One of the key components in health education is increasing knowledge, which according to Notoatmodjo (2018), is the result of learning

experiences that can help individuals understand health risks and the importance of preventive measures. In the context of lower back pain in the elderly, exercise therapy is one of the main aspects to control pain and improve quality of life, so education related to this topic is very necessary.

The results of this community service show that the level of knowledge of respondents increased significantly after being given counseling on the benefits of exercise therapy as a strategy to overcome lower back pain in the elderly. Before the intervention, most respondents (90%) had a low level of knowledge, indicating an information gap in the community regarding the benefits of exercise therapy. However, after the counseling, 95% of respondents achieved a high level of knowledge, indicating the success of the educational intervention in providing better understanding. This is consistent with the community service by Choi et al. (2014), who found that well-designed educational programs can improve public understanding of the role of physical exercise in managing chronic pain. In addition, the educational program implemented in this community service not only provides theoretical information but is also equipped with practical guidance, such as how to do safe and effective exercises for the elderly.

In addition to increasing knowledge, education also has a significant impact on changing respondents' attitudes. Before the intervention, 90% of respondents had a negative attitude towards the use of exercise therapy as a strategy to overcome lower back pain. This indicates resistance or indifference to changes in healthy behavior, which is most likely caused by old habits and a lack of understanding of the importance of physical exercise in pain management. However, after counseling, all respondents (100%) showed a positive attitude towards the use of exercise therapy. This change shows that education that focuses on long-term health benefits and is easily understood can significantly influence public opinion.

These findings support the Health Belief Model (HBM) theory, which states that increasing an individual's perception of the benefits of a preventive measure, such as physical exercise, can encourage motivation to change behavior (Glanz et al., 2015). The education provided in this service helped respondents realize that appropriate exercise therapy can be an effective strategy in overcoming lower back pain and improving quality of life. Regular and structured physical exercise has been shown to have a positive effect on reducing pain and improving physical function, as reported by Zhu et al. (2010), so it can help the elderly cope with lower back pain more effectively.

Significant increases in knowledge and changes in attitudes demonstrate the effectiveness of counseling in providing positive impacts on community health behavior. Sports therapy-based education like this also supports the concept of sustainability, where communities can utilize easily accessible resources to improve their quality of life. Furthermore, this program emphasizes the importance of collaboration between health workers, local communities, and the government in delivering health information widely and sustainably.

However, the long-term success of this education program requires a consistent approach. One of the recommendations from this service is to conduct a long-term evaluation of changes in community behavior, such as the frequency of physical exercise and its effect on pain levels. In addition, similar counseling can be expanded to other community groups to ensure that the benefits of this education can be felt widely. Education also needs to be

complemented with health campaigns that utilize social media and digital platforms to reach a wider audience.

CONCLUSION

Based on the results of this community service, it can be concluded that providing education related to the benefits of exercise therapy as a strategy to overcome lower back pain in the elderly in Malaysia has a significant impact on increasing knowledge and changing attitudes. Before being given education, most participants had a low level of knowledge related to understanding and treating lower back pain. However, after being given education, the results showed a significant increase, where most participants achieved a high level of knowledge. In addition, there was also an increase in changes in attitudes from before and after being given education and assistance. This shows that education can improve understanding related to the treatment of lower back pain through exercise therapy for the elderly.

ANCKNOWLEDGMENT

The community service team would like to express their gratitude to all parties who have contributed to the implementation of this community service program. Especially to the respondents who have taken the time and provided active participation in this activity, so that the data produced can be used for the benefit of developing science and public health. We also express our gratitude to LPPM UMSurabaya and MSU Malaysia who have provided facilities and support in this community service process.

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