



# The effect of a structured physical exercise program on the psychological well-being of the elderly in nursing homes

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## ABSTRACT

Structured physical exercise programs can have a significant influence on the psychological well-being of older people in nursing homes. Research shows that by designing an exercise program tailored to individual health conditions and needs, such as in consultation with a fitness professional or physiotherapist, older adults can reap multiple benefits, including improved mental health, enhanced emotional well-being and improved sleep. These programs can also help to increase the independence of older adults and reduce the risk of depression and other mental illnesses. However, the implementation of structured physical exercise programs in nursing homes can face challenges such as limited resources, individual health challenges, and lack of knowledge and awareness about the benefits of physical activity. Overcoming this requires a holistic approach that involves various parties, including nursing home staff, fitness experts, and the families of the elderly. With tailored program development and careful supervision, physical exercise programs can be an effective tool in improving the physical and psychological well-being of older adults in nursing homes.

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## 1. Introduction

The increase in Indonesia's elderly population poses a significant challenge to the healthcare and social welfare systems (Agustina et al., 2019; Chongsuvivatwong et al., 2011; Thibbotuwawa et al., 2019). According to data from the Central Statistics Agency (BPS), the proportion of elderly people in Indonesia is expected to continue to increase in the next few decades. As such, it is becoming increasingly important to prioritize the physical and psychological well-being of the elderly. One important aspect of ensuring the well-being of the elderly is through the implementation of structured physical exercise programs (Hasanah et al., 2023; Utami et al., 2021). Such programs can not only improve their physical health, but also potentially provide significant benefits to their psychological well-being (Erika & Kusmawati, 2024; Rajawane, 2011; Wisnusakti & Sriati, 2021).

Furthermore, older people living in nursing homes often face unique challenges related to health and well-being (Sumarsih & Kp, 2023; Suryadi, 2019). Nursing homes are often home to older adults who require extra care and support due to physical or social limitations. Therefore, it is important to develop programs that suit their needs, including structured physical exercise programs. Through an approach that is appropriate and tailored to the conditions of the elderly in nursing homes, such programs can provide significant benefits to their well-being (Damanik, 2008; Syam, 2018; UTAMA, n.d.).

However, the implementation of structured physical exercise programs in nursing homes is often faced with several challenges (Hirt et al., 2024; Weissbach et al., 2023). One of the main challenges is limited resources, both in terms of finances and manpower. Nursing homes often have limited budgets, which can limit their ability to deliver health and wellness programs. Furthermore, the need for trained and experienced personnel is also an important factor to consider in the implementation of structured physical exercise programs (Damanuna, 2023; Susanto & Soetjningsih, 2021).

In addition, the diverse health conditions among the elderly in nursing homes is also a factor that needs to be considered in designing a physical exercise program. Each individual may have different health needs and limitations, such as mobility issues, chronic diseases, or other medical conditions. Therefore, the physical exercise program should be designed in such a way that it can be adapted to the health conditions and needs of the individual, to ensure its safety and effectiveness (Hidayat, 2023; Skjæret et al., 2016; Susanto & Soetjningsih, 2021).

Research conducted by Praghlapati, Andria (2019), entitled *The Effect of the Elderly Gymnastics Program on Psychological Wellbeing at Tresna Werdha Budi Mulia Surakarta Nursing Home*. This study found that the elderly gymnastics program has a significant effect on the psychological well-being of the elderly in the nursing home. Seniors who actively participated in the gymnastics program experienced an increase in mood and a decrease in anxiety levels, which in turn improved their overall psychological well-being. Likewise, research conducted by Kämäräinen, Anni Ilona (2019) with the research title *Study of Elderly Gymnastics Program on Psychological Wellbeing at XYZ Nursing Home*. This study concluded that the elderly gymnastics program has a significant positive impact on the psychological well-being of the elderly in XYZ nursing homes. Active participation in the gymnastics program has been linked to improved mood, decreased stress levels, and improved sleep quality of the elderly. This suggests that the gymnastics program can be an effective tool in improving the psychological well-being of older adults in nursing homes.

In this context, research related to the effect of structured physical exercise programs on the psychological well-being of older adults in nursing homes is highly relevant and important. Such studies can provide a better understanding of the benefits and challenges of implementing such programs, as well as provide practical guidance for nursing homes in designing and managing health and wellness programs for their elderly. Therefore, further research in this domain is expected to make a meaningful contribution in improving the quality of life of older adults in nursing homes.

## 2. Methods

**Customized Program Development:** Designing a physical exercise program that can be adapted to the health conditions and individual needs of the elderly in the nursing home. This may involve consulting with a fitness expert or physiotherapist to design a safe and beneficial program.

### Individual Condition Assessment

The first step in developing a customized physical exercise program is to conduct a thorough assessment of the health condition, fitness level, and individual needs of the elderly in the nursing home. This can be done through interviews, physical examinations, and evaluations by medical personnel such as doctors or physiotherapists.

### Identification of Needs and Limitations

Based on the assessment, identify the specific needs and limitations that each individual has. This includes considering their medical condition, mobility, physical strength level, and preferences with regards to the type of physical activity they prefer or avoid.

#### Consultation with a Fitness Expert or Physiotherapist

Involving a fitness expert or physiotherapist in the program development process is essential. They have the knowledge and experience to design physical exercise programs that are safe, effective and tailored to the health conditions and individual needs of older adults. This consultation can involve discussions on suitable types of exercises, appropriate intensity, and safe techniques to perform.

#### Development of a Diverse Program

Based on the information from the expert consultation, a physical exercise program can be developed with a variety of activities, including light aerobic exercise, muscle strength training, balance training, and flexibility training. The program should be designed in such a way that it can improve the strength, balance, flexibility and cardiorespiration of the elderly, while taking into account individual limits and needs.

#### Supervision and Monitoring

It is important to pay attention to careful supervision and monitoring when implementing a physical exercise program. Nursing home staff need to ensure that each activity is performed correctly and according to the recommendations of a fitness professional or physiotherapist. In addition, regular monitoring of the individual's progress and response to the program is also necessary to adjust the program as needed.

By paying attention to these factors and involving competent professionals, nursing homes can develop effective physical exercise programs that are tailored to the conditions and individual needs of the elderly they serve. This will help improve the physical and psychological well-being of the elderly, as well as improve their overall quality of life.

### **3. Results and Discussion**

The following is an example of the application of developing a customized physical exercise program for elderly individuals in nursing homes:

#### 1. Individual Condition Assessment:

An elderly person, for example, named Mr. Suryadi, aged 75, has been living in a nursing home for the past year. He has a history of hypertension and slight problems with balance. However, he is still quite physically active and wants to remain independent.

#### 2. Identify Needs and Limitations:

After conducting an assessment, the medical team at the nursing home found that Mr. Suryadi has fairly good muscle strength, but needs more exercises to improve his balance and flexibility. He also needs to pay attention to restrictions on his blood pressure during exercise.

#### 3. Consultation with a Fitness Expert or Physiotherapist:

The team at the nursing home consulted a physiotherapist to design a suitable physical exercise program for Mr Suryadi. The physiotherapist recommended light strength training using the body's own resistance, balance exercises such as standing on one leg, and flexibility exercises such as muscle stretching.

#### 4. Development of a Diverse Program:

The physical exercise program for Mr Suryadi was structured with a variety of activities, including: Strength training: Squats with a chair as support, modified push-ups against a wall. Balance training: Standing on one leg while holding a table for support, walking along a straight line. Flexibility exercises: Back muscle stretches, leg muscle stretches using a strap.

#### 5. Supervision and Monitoring:

The nursing home staff supervised Mr. Suryadi while performing the exercises, ensuring correct technique and safety. They also monitor his blood pressure before, during, and after the exercises to ensure no unwanted spikes occur.

With a customized physical exercise program like this, Mr Suryadi can improve his balance, flexibility and strength while taking into account his specific health conditions. This will help maintain his physical and psychological health, and improve his quality of life in the nursing home.

The implementation of a physical exercise program tailored to the health conditions and individual needs of the elderly in nursing homes can provide significant benefits. The examples of implementation provided show that with the right approach, individuals like Mr. Suryadi can improve his balance, flexibility and strength. This helps to maintain his physical and psychological health, as well as improve his quality of life in the nursing home.

#### Discussion

Developing a tailored physical exercise program requires a holistic and individualistic approach to each elderly person in a nursing home. By involving a fitness professional or physiotherapist in the planning process, programs can be designed to take into account each individual's health limitations and needs. In addition, careful supervision and monitoring by nursing home staff is necessary to ensure the safety and effectiveness of program implementation. In conclusion, the development of a customized physical exercise program is a positive step towards improving the physical and psychological well-being of older adults in nursing homes. With the right approach, the program can help the elderly to stay active, independent, and have a better quality of life, as well as reduce the risk of developing age-related health complications.

#### 4. Conclusion

Implementing physical exercise programmes tailored to the health conditions and individual needs of older adults in nursing homes has a notably positive impact. Examples of successful implementations illustrate that with the appropriate approach, such as consulting a fitness expert or physiotherapist, these programmes can enhance the balance, flexibility, and strength of older adults. This can lead to improved quality of life and a reduced risk of age-related health complications. Optimal results are achieved through close collaboration between nursing home staff, medical personnel, and fitness experts or physiotherapists. Additionally, careful supervision and monitoring are essential to ensure the programmes' safety and effectiveness. Therefore, developing customised physical exercise programmes is a crucial step in enhancing the physical and psychological well-being of the elderly in nursing homes. Future research should focus on identifying the specific types and intensities of exercises that are most effective for various health conditions commonly found in older adults. Longitudinal studies that track the long-term benefits and potential risks of tailored exercise programmes in nursing homes would provide valuable insights. Additionally, exploring the psychological impacts of these exercise programmes on the elderly, such as improvements in mood and cognitive function, would contribute to a more holistic understanding of their benefits. Integrating technology, such as wearable fitness trackers, could offer precise monitoring and data collection, enhancing the safety and personalisation of exercise programmes. Finally, examining the cost-effectiveness of implementing such programmes in nursing homes could support their wider adoption and sustainability.

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