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# THE EFFECT OF BRAIN EXERCISE ON ELDERLY AT UPTD DINSOS SERANG

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## ABSTRACT

Health problems in the elderly will experience setbacks and weaknesses in the form of physical, cognitive, spiritual and psychosocial changes. One of the cognitive changes that occur in the elderly is a change in memory or memory, while the following symptoms are easy to forget at a mild level and in severe conditions can cause dementia, decreased cognitive function can affect the quality of life in the elderly. This community service activity was carried out on February 18, 2022 at the UPTD DINSOS Serang. This activity was attended by 21 cooperative elderly people. The results of brain gym activities carried out at the UPTD DINSOS Serang were obtained from 21 elderly who participated, there were 6 men (29%) and 15 women (71%), while the elderly could do gymnastic movements as instructed by the elderly as follows 5 men (24%) and 14 women (67%).

*Keywords: Brain exercise, elderly*

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## INTRODUCTION

Elderly is someone aged  $\geq 60$  years, who is still active in activities and works or those who are powerless to earn their own living so that they depend on other people to support themselves (Agus Martini, 2016).

WHO (World Health Organization) data in 2000 in the Southeast Asian Region the elderly population was around 5,300,000 people (7.4%) and in 2010 around 24,000,000 people (9.77%), and in 2020 it is estimated to reach 28,800. 000 people (11.34%) of the total population, it is estimated that by 2050 the elderly population will increase 3 times.

In Indonesia, the elderly population in 2006 was  $\pm 19,000,000$  people (8.9%) with a life expectancy of 66.2 years, and in 2010 there were 23,900,000 people (9.77%) with a life expectancy of 67.4 years, in 2020 it is estimated that there will be 28,800,000 people (11.34%) with a life expectancy of 71.1 years. Indonesia ranks fourth after China, India and Japan.

The male elderly population in Banten in 2018 was around 383,887 people (7.35%) and in 2019 around 410,633 people (7.70%), and in 2020 it reached 427,298 people (8.54%) for the female population in 2018 around 386,866 people (6.21%), and in 2019 around 412,284 people (6.73%) and in 2020 it reached 423,576 people (7.26%) (Banten, 2018-2020).

Health problems in the elderly will experience setbacks and weaknesses in the form of physical, cognitive, spiritual and psychosocial changes. One of the cognitive changes that occur in the elderly is a change in memory or memory, while the symptoms are as follows for a mild level it is easy to forget and in severe conditions it can cause dementia, decreased cognitive function can affect the quality of life in the elderly (Agus Martini, 2016), State 2017.

Paul E. Denison Ph.D as the inventor of brain gymnastics from the Educational Kinesiology Institute of the United States said that although simple brain gymnastics can facilitate learning activities and make adjustments to the tensions, challenges and demands of everyday life, besides that brain gymnastics can improve language skills and abilities. remember. The purpose of brain exercise is to facilitate the flow of blood and oxygen so that the brain can be stimulated to work (Agus Martini, 2016).

The purpose of making this report is:

1. Documenting the activity process from preparation to evaluation.
2. Identify various obstacles during the activity.
3. As a guide for the implementation of future activities.

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## METHODS

This community service activity was carried out on February 18, 2022 at the UPTD DINSOS Serang. This activity was attended by 21 cooperative elderly people.

This implementation strategy is carried out systematically, including:

### 1. Preparation

- a. Request approval from the Director of the Yatna Yuana Lebak Nursing Academy.
- b. Coordinate with the Head of UPTD DINSOS Serang.
- c. Submitting a Proposal to the P3M Yatna Yuana Lebak Nursing Academy.
- d. Formation of Community Service Committee.
- e. Distribution of tasks to the Community Service Implementation Team.
- f. Make an agreed schedule for the implementation of activities.
- g. Preparation of tools and materials.
- h. Making SAP and leaflets

### 2. Implementation

- a. Coordinate with the Community Service Committee.
- b. Distribution of roles and responsibilities of each team member.
- c. Implementation of activities according to a predetermined schedule.
- d. Evaluation of the activity process.
- e. Documentation of all activities.

## RESULTS

### A. Activity Results

The implementation of activities is carried out in a systematic and planned manner, activities are carried out through the following stages:

#### 1. Preparation

- a. Request approval from the Director of the Yatna Yuana Lebak Nursing Academy.
- b. Coordinate with the Head of UPTD DINSOS Serang.
- c. Submitting a Proposal to the P3M Yatna Yuana Lebak Nursing Academy.
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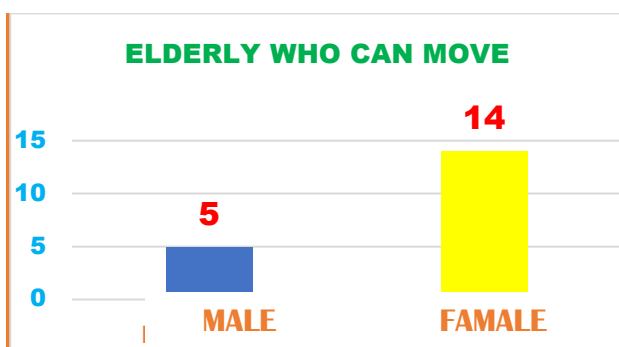
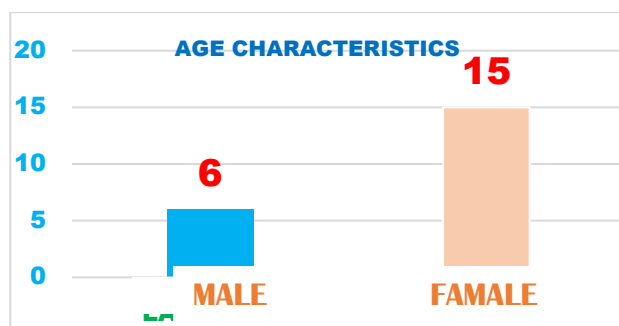
### 3. Reporting

- a. Evaluate the activities that have been determined
- b. Make activity reports
- c. Collect activity reports to P3M

### 4. Evaluation Criteria

The evaluation carried out during the activity process uses a 3 (three) approach, namely:

- a. Structure criteria
  - 1) The proposal has been submitted and approved by the Head of P3M.
  - 2) The required infrastructure and media have been prepared.
  - 3) Team members who will take part in the activity have been notified.
- b. Process criteria  
Activities are carried out according to a predetermined schedule.  
All participants follow the activity process according to the provisions set by the committee.
- c. Yield criteria  
A total of 21 elderly who participated in brain gymnastics.



## DISCUSSION

Brain gym is a fun series of simple movements that are used to improve learning abilities by using the whole brain. Brain gym is useful for training the brain. Brain exercise will make the brain work or be active. Brain exercise is very practical because it can be done anywhere, anytime. Exercise portion of about 10-15 minutes, as much as 2-3 times a day. Core brain exercise exercises from Educational Kinesiology are related to the movement of the human body (Abdilah, 2018, Afida 2022).

WHO (World Health Organization) data in 2000 in the Southeast Asian Region the elderly population was around 5,300,000 people (7.4%) and in 2010 around 24,000,000 people (9.77%), and in 2020 it is estimated to reach 28,800. 000 people (11.34%) of the total population, it is estimated that by 2050 the elderly population will increase 3 times.

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Based on these data, through this community service the author seeks to hold brain gymnastics which aims to enable the elderly to respond effectively to the stimulus provided so that the elderly can carry out activities in participating in brain gymnastics and can hone cooperation and cohesiveness with fellow elderly while participating in brain gymnastics.

This activity emphasizes promotive and preventive efforts so that the elderly can do it independently or with the elderly without a nurse giving instructions.

The results of brain gym activities carried out at the UPTD DINSOS Serang were obtained from 21 elderly who participated, there were 6 men (29%) and 15 women (71%), while the elderly could do gymnastic movements as instructed by the elderly as follows 5 men (24%) and 14 women (67%).

## CONCLUSION

Health problems in the elderly will experience setbacks and weaknesses in the form of physical, cognitive, spiritual and psychosocial changes. One of the cognitive changes that occur in the elderly is a change in memory or memory, while the following symptoms are easy to forget at a mild level and in severe conditions can cause dementia, decreased cognitive function can affect the quality of life in the elderly (Agus Martini, 2016).

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