



HEALTH PROMOTION BY TEACHING DUAL TASK EXERCISE AND EMPOWERING CADRES ON GAIT IMPROVEMENTS AS WELL AS THE BALANCE OF THE ELDERLY IN GOWA REGENCY

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Abstract

Walking and balance disorders are the most common causes of falls in the elderly and often lead to injury and disability, Gait and balance disorders are usually multifactorial and require a comprehensive examination to determine contributing factors and appropriate interventions. Most of the gait changes that occur in the elderly are related to underlying medical conditions, walking and balance disorders should not be viewed simply as inevitable consequences of aging. Early identification of gait and balance disorders and determination of appropriate interventions can prevent dysfunction and loss of independence. This community service is carried out in Gowa Regency, South Sulawesi Province. The intervention given to the elderly is to provide and teach how to carry out dual task exercise *interventions* in postural control, carry out health promotion and empowerment of cadres are given in the right way and carried out continuously to improve the gait and balance of the elderly in Gowa Regency.

Keywords: Health Promotion, Exercise, Cadre Empowerment, Gait and Elderly Balance

INTRODUCTION

Currently, aging is considered a political, economic and health issue, Statistically concluding that by 2023 the number of people over 60 years old is greater than the number of children under five years old. The World Health Organization (WHO) provides data that estimates that the percentage of the world's population over the age of 60 could double, from 12% of the world's population to 22%. Functional decline will occur along with aging such as daily actions such as walking while talking, reading while walking, can be experienced by the elderly. When the processing rate of performing 2 actions simultaneously (dual task) begins to deteriorate due to a decline in cognitive or executive function, it becomes a potential threat to the independence of the elderly. Under normal conditions, our brains are constantly developing double-duty actions, but in the stages of neurological pathology and aging itself, the performance of dual tasks and multiple tasks will be affected, causing problems for activities of daily living. (Varela-Vázquez et al., 2020) Walking and balance disorders are the most common causes of falls in the elderly and often lead to injury and disability, Gait and balance disorders are usually multifactorial and require a comprehensive examination to determine contributing factors and appropriate interventions. Most of the gait changes that occur in the elderly are related to underlying medical conditions, walking and balance disorders should not be viewed simply as inevitable consequences of aging. Early identification of gait and balance disorders and determination of appropriate interventions can prevent dysfunction and loss of independence. At least 30% of the 65 elderly reported difficulty walking or climbing one flight of stairs and about 20% required the use of mobility aids for ambulation. 35% of the elderly were found to have an abnormal gait. The prevalence of abnormal gait increases with age and higher in people at hospital and in those living in long-term

care facilities. In one study, walking disorders were detected in about 25% of people aged 70 to 74 years and almost 60% of those aged 80 years to the most common aged 84 years (Salzman, 2010). Postural control and health promotion can help improve gait and balance in the elderly by administering *dual task exercise interventions* that combine cognitive and motor such as:

- a. Telling the elderly to walk while mentioning the names of surrounding objects or looking for objects with certain categories
- b. Telling the elderly to walk while doing complex hand or finger movements, such as pinching or squeezing a small plastic ball while walking.
- c. Telling the elderly to walk while counting backwards from one hundred to zero, or in other sequences that require high attention and coordination.

Health promotion is given or delivered to the elderly related to physical exercise, regular health checks, balanced nutrition, drug review, use of assistive devices, safe environment and fall prevention by empowering cadres.

The empowerment of elderly cadres at the Batara Hati Foundation in Gowa Regency helps or is directly involved in helping to improve gait and balance disorders in the elderly is still not optimal. Therefore, the holding of this community service activity is expected to help cadres and the elderly to be able to increase the activities of the elderly and cadres in overcoming the problems faced by the elderly. So that it can help maximize cadre activities and understanding of the elderly in dealing with movement and movement function problems. Based on observations in the field, there are problems experienced by cadres and the elderly in the Batara Hati Foundation. Various problems that occur due to the lack of understanding of cadres in participating actively in monitoring and motivating the elderly who experience walking disorders and balance disorders. Community service carried out on the elderly and cadres aims to provide education and health promotion in improving or overcoming problems of walking and balance disorders, so that cadre involvement activities and understanding of the elderly in carrying out dual task exercise intervention activities, can channel back information obtained from community service activities to other places or villages in the district Gowa so that the community service program carried out can be adopted.

METHOD AND PROCEDURES

The stages and methods carried out in this activity are the team conducting surveys and interviews with several elderly and cadres at the Batara Hati Mulia Foundation, Gowa Regency, the extent to which they understand and understand in improving the activities carried out in dealing with problems experienced by the elderly and the role of cadres in monitoring and motivating the elderly in carrying out interventions handling dual task exercises properly and correctly to get maximum results. Pengabdi proposed this face-to-face activity by providing education and promotion of health in increasing the knowledge of the elderly and cadres in implementing interventions dual task exercise at postural control in improving gait and balance of the elderly.

The community service methods carried out include conducting direct observations to Gowa Regency, conducting interviews with the Chairman of the Batara Hati Mulia Foundation and elderly cadres to get an overview of actionable problems together with community service, taking secondary data from the elderly registration book, conducting seminars and presentations to cadres and the elderly in the implementation of interventions.

The detailed information on the activities of this health promotion seminar is as follows:

1. Time and Place of Implementation

Implementation Day and Date : Saturday, August 2023
Implementation Time : 07.30 WIB – 10.00 WIT
Place of Implementation : Batara Hati Foundation Clinic

2. Implementasi (Even setting) :

The event of the health promotion seminar is as follows:

Table 1. Event Arrangements

No	Time	Event	Person in Charge
1.	07.00-07.15	Registration	Megawati
2.	07.15-07.30	Opening by MC	Widya
3.	07.30-07.15	Greeting by Devotees Remarks by YBH Chairman	Tiar Erawan Iryanti
4.	08.00-.08.30	Material Submission I	Agussalim
5.	08.30-09.00	Material Submission II	Rahmat Nugraha
6.	09.00-09.30	Discussion & Q&A	Audience
7.	09.30-09.40	Penutup	Pengabdi
8.	09.40-09.50	Handover of Souvenirs	Pengabdi
9.	09.50-10.00	Dokumentasi	Audience

RESULTS

Community service participants were healthy elderly and those with walking and balance disorders at the Batara Hati Mulia Foundation, Somba Opu District, Gowa Regency, a total of 45 elderly who came and were examined during community service. Health Promotion is given to the elderly while the other elderly are carried out a Balance Check which is used using the *Time Up Go Test and Berg Balance Scale* to find out that the elderly have balance disorders.



Figure 1. Documentation of TUG Test 3 meters round trip examination for the elderly



Figure 2. Documentation of the Implementation of Health Promotion Dualtask exercise in the elderly



Figure 3 Implementation of two task exercises in the form of gymnastics while singing

No	Nama	Umur	Lat	Alasan	TD
1	Ewardah	68	✓	Balok kalutur	130/80
2	Nursia	68	✓	St. Malino	110/60
3	Nursia	68	✓	St. Malino	110/60
4	Nursia	68	✓	St. Malino	110/60
5	Nursia	68	✓	St. Malino	110/60
6	Nursia	68	✓	St. Malino	110/60
7	Nursia	68	✓	St. Malino	110/60
8	Nursia	68	✓	St. Malino	110/60
9	Nursia	68	✓	St. Malino	110/60
10	Nursia	68	✓	St. Malino	110/60
11	Nursia	68	✓	St. Malino	110/60
12	Nursia	68	✓	St. Malino	110/60
13	Nursia	68	✓	St. Malino	110/60
14	Nursia	68	✓	St. Malino	110/60
15	Nursia	68	✓	St. Malino	110/60
16	Nursia	68	✓	St. Malino	110/60
17	Nursia	68	✓	St. Malino	110/60
18	Nursia	68	✓	St. Malino	110/60
19	Nursia	68	✓	St. Malino	110/60
20	Nursia	68	✓	St. Malino	110/60
21	Nursia	68	✓	St. Malino	110/60
22	Nursia	68	✓	St. Malino	110/60
23	Nursia	68	✓	St. Malino	110/60
24	Nursia	68	✓	St. Malino	110/60
25	Nursia	68	✓	St. Malino	110/60
26	Nursia	68	✓	St. Malino	110/60
27	Nursia	68	✓	St. Malino	110/60
28	Nursia	68	✓	St. Malino	110/60
29	Nursia	68	✓	St. Malino	110/60
30	Nursia	68	✓	St. Malino	110/60
31	Nursia	68	✓	St. Malino	110/60
32	Nursia	68	✓	St. Malino	110/60
33	Nursia	68	✓	St. Malino	110/60
34	Nursia	68	✓	St. Malino	110/60
35	Nursia	68	✓	St. Malino	110/60
36	Nursia	68	✓	St. Malino	110/60
37	Nursia	68	✓	St. Malino	110/60
38	Nursia	68	✓	St. Malino	110/60
39	Nursia	68	✓	St. Malino	110/60
40	Nursia	68	✓	St. Malino	110/60

Figure 4 List documentation present

CONCLUSION

Community service activities can be concluded that dual task exercise interventions and health promotion can increase the knowledge and understanding of the elderly in controlling their posture and general health in the elderly. Through dual task exercises, the elderly can improve their muscle strength, flexibility, and body coordination. This exercise can also help improve balance and posture stability, which in turn can reduce the risk of falls.

This Community Service activity must always add insight and improve knowledge and skills on how to maintain good physical health and fitness in the elderly, by involving various elements and agencies

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