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Research Article

The Combination of Tera Gymnastics and Square Stepping Exercises on the Dynamic Balance of the Elderly

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Abstract.
With increasing age, there is a decrease in the functions of the degenerative body, including a decrease in the functions of the musculoskeletal, neuromuscular, and cardiovascular areas, as well as a reduced ability to perform daily activities. One of the declines in musculoskeletal function is a decrease in muscle function which causes muscle fibers to shrink, causing a decrease in strength, muscle mass, and bone mass. This causes dynamic balance disorders in the elderly. To improve and maintain dynamic balance, a combination of Tera and Square Stepping exercises is recommended for the elderly. This study aimed to determine whether there is an effect of the combination of Tera and Square Stepping exercises on the level of the dynamic balance of the elderly in the elderly community at the Sasana Malang. This study followed a pre-experimental, namely One Group Pre-Test and Post-Test, design. 35 elderly people in the elderly community at Sasana Malang for 4 weeks were studied in this research. Timed Up and Go Test instruments were used. The results discovered that the Shapiro Wilk-Test data was normal, Pre-Test was 14.2317 and Post-Test was 119480. Paired Sample T Test significance was 0.000, H0 is rejected and H1 is accepted. A combination of Tera and Square Stepping exercises for 4 weeks increases the dynamic balance of the elderly in the elderly community at the Sasana Malang.

Keywords: Tera, Square Stepping Exercise, dynamic balance

1. INTRODUCTION

Limitation of physical activity causes a decrease in the dynamic balance of elderly people (Damayanti et al., 2021). Elderly is the age at the end of the life cycle. This stage begins at the age of 60 years and everyone experiences the aging process (Utama, 2015).

The prevalence of the elderly population in Indonesia reaches 23.66 million people or 9.03%. In 2020, the elderly population in East Java reaches 13.48% (Salam, 2021). According to the Indonesian Ministry of Health in 2012, the average decline in the balance of elderly people in Indonesia was 63.8%-68.7% (Faidah et al., 2020). According

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