

ABSTRAK

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Pengaruh Kombinasi *Square Stepping Exercise* dan *One Leg Stance Exercise* terhadap Keseimbangan Dinamis Lansia di Desa Krasak Ageng

Pendahuluan: Lansia merupakan seseorang yang telah memasuki usia 60 tahun hingga kematian. Fisiologi tubuh manusia memburuk seiring dengan bertambahnya usia terutama berkaitan dengan keseimbangan. Lansia dengan gangguan keseimbangan memiliki risiko mudah jatuh. Upaya untuk meningkatkan keseimbangan dinamis dapat dilakukan dengan latihan berupa *square stepping exercise* dan *one leg stance exercise*. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi *square stepping exercise* dan *one leg stance exercise* terhadap keseimbangan dinamis lansia di Desa Krasak Ageng.

Metode: Desain penelitian ini berupa *quasi eksperimental study* dengan menggunakan *one group pretest and post test design*. Sampel diperoleh secara *Total Sampling* dengan jumlah 32 responden. Analisis data menggunakan analisis univariat dan bivariate dengan alat ukur *time up and go test* dengan nilai validitas $r = -0,754$ dan nilai reliabilitas 0,99. Uji normalitas menggunakan *Shapiro Wilk* serta uji non parametric *Wilcoxon Sign Rank Test*.

Hasil: Hasil nilai medan sebelum diberikan intervensi 14,18 detik dan nilai mean sesudah diberikan intervensi 11,88 detik. Hasil uji *Shapiro Wilk* menunjukkan data berdistribusi tidak normal. Hasil uji *Wilcoxon sign rank test* yang signifikan menunjukkan bahwa p value sebesar 0,000 ($< 0,05$), sehingga terdapat pengaruh kombinasi *square stepping exercise* dan *one leg stance exercise* terhadap keseimbangan dinamis lansia di Desa Krasak Ageng.

Diskusi: Adanya pengaruh yang signifikan antara *square stepping exercise* dan *one leg stance exercise* terhadap keseimbangan dinamis lansia di Desa Krasak Ageng. Lansia diharapkan dapat melakukan latihan yang sudah diajarkan untuk meningkatkan keseimbangan dinamis.

Kata Kunci: *square stepping exercise*, *one leg stance exercise*, keseimbangan dinamis

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ABSTRACT

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The Effect of the Combination of Square Stepping Exercise and One Leg Stance Exercise on the Dynamic Balance of the Elderly in Krasak Ageng Village

Introduction: An elderly person is someone who is 60 years or older. Aging leads to a decline in human physiological function, especially concerning balance. Consequently, older adults have an increased risk of falls. Dynamic balance can be enhanced through targeted exercises, including square stepping and single-leg stance training. This study aims to examine the effect of combining square stepping exercise and single-leg stance exercise on dynamic balance among elderly residents in Krasak Ageng Village.

Methods: This study employs a quasi-experimental design utilizing a single-group pretest-posttest approach. Total sampling was used as many as 32 respondents. The study employs both univariate and bivariate analysis using the Timed Up and Go Test (TUG) as the measurement instrument, with established validity ($r = -0.754$) and high reliability ($\alpha = 0.99$). Shapiro Wilk was used to measure data distribution, whereas non parametric test used Wilcoxon Sign Rank test.

Result: The results showed that the median score was 14.18 second before the intervention and improved to 11.88 second after the intervention. Shapiro Wilk test showed that data weren't normaly distributed. The Wilcoxon signed-rank test revealed statistically significant results ($p\text{-value} = 0.000$, $p < 0.05$), indicating that the combined square stepping and single-leg stance exercise intervention significantly improved dynamic balance among elderly participants in Krasak Ageng Village.

Discussion: The findings demonstrate that combining square stepping exercises and single-leg stance practice significantly enhances dynamic balance among older adults in Krasak Ageng Village. It is recommended that elderly participants consistently practice the instructed exercises (square stepping and single-leg stance) to maintain and enhance their dynamic balance capabilities.

Keywords: square stepping exercise, one leg stance exercise, dynamic balance

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