

HUBUNGAN KEKUATAN OTOT EKSTREMITAS BAWAH TERHADAP KESEIMBANGAN DINAMIS PADA LANSIA DI PANTI SOSIAL TRESNA WERDHA BUDI MULIA 1

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Abstrak

Lansia mengalami banyak perubahan fisiologis yang berkontribusi terhadap penurunan otot ekstremitas bawah dan keseimbangan dinamis, sehingga meningkatkan risiko jatuh. Tujuan: Tujuan penelitian ini adalah untuk mengidentifikasi karakteristik responden lansia, mengukur tingkat kekuatan otot ekstremitas bawah, menilai keseimbangan dinamis, serta menganalisis hubungan antara kekuatan otot ekstremitas bawah di Panti Sosial Tresna Werdha Budi Mulia 1 dan keseimbangan dinamis. Metode: Penelitian ini menggunakan pendekatan *cross-sectional* dengan desain analisis korelasional. Jumlah responden sebanyak 40 lansia. Kekuatan otot ekstremitas bawah diukur menggunakan *30 Second Chair Stand Test*, sedangkan keseimbangan dinamis diukur menggunakan *Timed Up and Go Test*. Hasil: Penelitian menunjukkan bahwa mayoritas responden berusia 60–69 tahun dan berjenis kelamin perempuan. Rata-rata nilai 30s-CST adalah 11,47 kali (SD = 3,53), dengan sebagian besar responden berada pada kategori cukup. Rata-rata waktu TUG adalah 20,98 detik (SD = 13,21), yang menunjukkan adanya perbedaan pada kemampuan keseimbangan dinamis di kalangan orang lanjut usia. Hasil analisis korelasi Spearman mengungkapkan adanya hubungan yang signifikan antara kekuatan otot ekstremitas bawah dan keseimbangan dinamis ($r = -0,525$ $p = 0,001$), dengan hubungan bersifat negatif dan sedang, yang berarti bahwa semakin baik kekuatan otot bagian bawah tubuh, maka keseimbangan dinamis pada lanjut usia akan semakin baik. Kesimpulan: Terdapat hubungan signifikan antara kekuatan otot ekstremitas bawah dan keseimbangan dinamis di kalangan orang lanjut usia.

Kata Kunci: Lansia, Kekuatan Otot Ekstremitas Bawah, Keseimbangan Dinamis
30 Second Chair Stand Test, Timed Up and Go Test

THE RELATIONSHIP BETWEEN LOWER EXTREMITY MUSCLE STRENGTH AND DYNAMIC BALANCE IN OLDER ADULTS AT PANTI SOSIAL TRESNA WERDHA BUDI MULIA 1

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Abstract

Elderly individuals undergo several physiological changes that lead to a decrease in muscle strength in the lower body and dynamic balance, which can heighten the likelihood of falls. Objective: The purpose of this study was to identify the characteristics of elderly respondents, measure the level of lower extremity muscle strength, assess dynamic balance, and analyze the relationship between lower extremity muscle strength and dynamic balance at the Budi Mulia 1 Tresna Werdha Social Home. Methods: This study uses a cross-sectional method with a correlational analysis framework. A total of 40 elderly people participated in this study. Muscle strength in the lower body was gauged using the 30-Second Chair Stand Test, while dynamic balance was evaluated through the Timed Up and Go Test. Results: The results indicated that most of the participants were aged between 60 and 69 years and predominantly female. The mean 30-Second Chair Stand Test (30s-CST) score was 11,47 repetitions (SD = 3,53), with the majority of participants classified in the moderate category. The mean Timed Up and Go (TUG) time was 20,98 seconds (SD = 13,21), showing differences in dynamic balance ability among the elderly. Analysis using Spearman's correlation found a notable association between lower extremity muscle strength and dynamic balance ($r = -0,525$, $p = 0,001$), presenting a moderate negative correlation, which suggests that increased lower extremity muscle strength correlates with improved dynamic balance in older adults. Conclusion: There is a significant relationship between lower extremity muscle strength and dynamic balance in elderly individuals.

Keywords: Older adults, Lower extremity muscle strength, Dynamic balance, 30 Second Chair Stand Test, Timed Up and Go Test