

Comparison of upper limb muscle strength, lower limb muscle strength and quality of life of older adults who practice yoga and do not practice yoga in selected settings in Colombo District

A. M. D. Lakmali, C. Ranasinghe

Department of Allied Health Science, Faculty of Medicine, University of Colombo, Sri Lanka

Yoga is an ancient practice that enhances strength, balance, flexibility, and mental health worldwide. This study aims to compare the impact of regular yoga practice on muscle strength and quality of life, between yoga practitioners and non-yoga practitioners aged 65 years or older in Sri Lanka. A cross-sectional study was conducted at Sethsanda Yoga Academy in Maharagama and 330 National Housing Scheme, Colombo 8, Sri Lanka, involving yoga practitioners and non-yoga practitioners aged ≥ 65 years. Upper limb and lower limb muscle strength were evaluated using a hand-held dynamometer and the 30-second chair stand test, respectively. Quality of life (QoL) was assessed using the SF-36 Questionnaire, which covers physical, emotional, and social dimensions. The Mann-Whitney U test was used to determine significant differences between the two groups using SPSS version 22. Fifty yoga practitioners (male; $n=11$, female; $n=39$), with a mean \pm SD age of 67.5 ± 2.7 years and fifty non-yoga practitioners (male; $n=11$, female; $n=39$) with a mean \pm SD age of 67.4 ± 3.3 years participated in the study. A statistically significant difference was observed in upper limb and lower limb muscle strength between yoga practitioners and non-yoga practitioners with $p=0.000$ ($p < 0.05$). In the 30 second chair stand test, yoga practitioners (14.2 ± 2.8) showed higher value than non-yoga practitioners (9.68 ± 1.8). Quality of life (SF- 36) showed higher scores in yoga practitioners across various domains with $p=0.000$ ($p < 0.05$). Yoga practitioners showed enhanced muscle strength and higher quality of life scores compared to non-yoga practitioners. These findings suggest that regular yoga practice positively impacts and improves physical and emotional well-being.

Keywords: *Yoga, Upper limb muscle strength, Lower limb muscle strength, Quality of Life, 30 second chair stand test*