

ABSTRAK

Populasi lansia di dunia semakin meningkat, termasuk di Indonesia. Para lansia tersebut membutuhkan kualitas hidup yang baik agar bisa terus sehat di masa tuanya. Perubahan pada lansia terjadi pada berbagai sistem organ, salah satunya sistem pernapasan. Sistem pernapasan mengalami berbagai perubahan struktural, fisiologis, dan imunologi. Ekspansi paru akan menurun setelah dekade ketiga. Tujuan penelitian ini adalah untuk mengetahui perbedaan ekspansi paru lansia yang rutin melakukan senam lansia dengan yang rutin melakukan olahraga tai chi, sehingga dapat dijadikan pertimbangan pemilihan olahraga bagi lansia.

Penelitian potong lintang pada kelompok lansia yang mengikuti senam lansia dan olahraga tai chi, yang masing-masing terdiri dari 18 orang dengan mengukur ekspansi paru menggunakan pita ukur. Analisis statistik menggunakan uji *Mann-Whitney* dan uji normalitas *Shapiro-Wilk*.

Hasil penelitian menunjukkan bahwa nilai median ekspansi paru segmen atas pada kelompok senam lansia adalah 1,00 cm dan olahraga tai chi 2,75 cm dengan nilai $p < 0,05$. Nilai median ekspansi paru segmen bawah pada kelompok senam lansia adalah 1,25 cm dan olahraga tai chi 2,00 cm dengan nilai $p > 0,05$. Nilai rata-rata ekspansi paru segmen atas kelompok senam lansia $1,33 \pm 0,485$ cm dan segmen bawah $1,78 \pm 0,974$, sedangkan rata-rata ekspansi atas segmen atas kelompok olahraga tai chi $2,33 \pm 0,857$ cm dan segmen bawah $2,14 \pm 0,871$ cm

Kesimpulan dari penelitian ini didapatkan bahwa ekspansi paru segmen atas lansia yang rutin melakukan olahraga tai chi lebih besar daripada lansia yang melakukan senam lansia dan ekspansi paru segmen bawah tidak terdapat perbedaan.

Kata kunci: ekspansi paru, lansia, senam, tai chi

ABSTRACT

The world's elderly population is increasing, including in Indonesia. The elderly need a good quality of life to keep healthy in old age. The changes of elderly is occur in various organ systems, one of them is respiratory system. Respiratory system have various of structural, physiological, and immunology changes. Chest expansion will decline after the third decade. The purpose of this study is to determine differences of chest expansion in elderly people who regularly do elderly exercise with who regularly do tai chi exercise.

This was a cross-sectional study. Sample was taken in two group, one who do elderly exercise regularly and the other group who do tai chi exercise. Each group consists of 18 and and the data was obtained by measuring the chest expansion with measuring tape the data was analyzed by the Mann-Whitney test and Shapiro-Wilk for normality test.

The results showed that the median value of chest expansion on upper segment in elderly exercise group was 1.00 cm and tai chi exercise was 2.75cm with $p < 0.05$. The median value of chest expansion in lower segment in elderly exercise group was 1.25 cm and tai chi exercise 2.00 cm with $p > 0.05$. The average value of chest expansion on upper segment in elderly exercise group was 1.33 ± 0.485 cm and lower segment was 1.78 ± 0.974 , while the average of chest expansion on upper segment in tai chi exercise group was 2.33 ± 0.857 and the lower segment was 2.14 ± 0.871 cm.

The conclusion of this study found that chest expansion on upper segment segments in elderly who regularly do tai chi exercise is greater than the elderly who do elderly exercise and chest expansion in lower segment was no difference.

Keywords: chest expansion, elderly, exercise, tai chi