

## ABSTRAK

### **Pengaruh Latihan *Active Cycle Breathing Technique* (ACBT) terhadap Perubahan Frekuensi Nafas pada Pasien Pneumonia di ruang Jaya Negara RSUD dr Wahidin Sudiro Husodo Mojokerto**

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Pasien pneumonia seringkali mengalami kesulitan untuk mengembangkan paru sehingga terjadi sesak nafas dan peningkatan frekuensi nafas. Pasien pneumonia tidak mengetahui cara untuk meningkatkan aliran udara ke dalam paru agar sesak nafas berkurang dan frekuensi nafas menurun. Penelitian ini bertujuan untuk mengetahui pengaruh latihan ACBT terhadap perubahan frekuensi nafas pada pasien pneumonia. Desain penelitian ini menggunakan pre eksperimental dengan pendekatan one group pretest posttest design. Populasi penelitian adalah semua pasien pneumonia di Ruang Jayanegara RSUD dr. Wahidin Sudirohusodo Mojokerto pada tanggal 27 Juni-15 Juli 2024 sejumlah 30 orang. Teknik *sampling* menggunakan *consecutive sampling* sehingga didapatkan 30 orang yang memenuhi kriteria inklusi. Instrumen penelitian menggunakan SOP ACBT, *stopwatch* dan lembar observasi. Analisis data menggunakan *paired t test*. Hasil penelitian menunjukkan bahwa rata-rata frekuensi nafas sebelum latihan ACBT adalah 27x/menit dengan nilai tertinggi 28x/menit dan terendah 25x/menit dan standar deviasi sebesar 1,048, nilai rata-rata frekuensi nafas sesudah latihan ACBT adalah 19,5x/menit dengan nilai tertinggi 22x/menit dan terendah 18x/menit dan standar deviasi sebesar 1,225. Hasil analisis uji *paired t test* menunjukkan  $p\text{ value} < 0,05$ , sehingga  $H_1$  diterima, artinya ada pengaruh latihan ACBT terhadap perubahan frekuensi nafas pada pasien Pneumonia di RS Ruang Jaya Negara RSUD Wahidin Sudirohusodo Mojokerto. ACBT dapat menurunkan frekuensi nafas pada pasien pneumonia. ACBT dapat meningkatkan ventilasi sehingga aliran udara lebih lancar dan huffing dapat mengeluarkan sputum yang menghambat aliran udara sehingga pernafasan lebih lancar dan frekuensi nafas menurun.

**Kata kunci: ACBT, frekuensi nafas, pneumonia**

## **ABSTRACT**

### **The Effect of Active Cycle Breathing Technique (ACBT) Exercise on Changes in Breathing Frequency in Pneumonia Patients in the Jaya Negara Room, Dr. Wahidin Sudiro Husodo Hospital, Mojokerto**

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Pneumonia patients often have difficulty expanding their lungs, resulting in shortness of breath and increased breathing frequency. Pneumonia patients do not know how to increase airflow into the lungs to reduce shortness of breath and decrease breathing frequency. This study aimed to determine the effect of ACBT exercise on changes in breathing frequency in pneumonia patients. The design of this study used a pre-experimental with one group pretest posttest design approach. The study population was all pneumonia patients in the Jayanegara Room, Dr. Wahidin Sudirohusodo Hospital, Mojokerto on June 27-July 15, 2024, totaling 30 people. The sampling technique used consecutive sampling so that 30 people met the inclusion criteria. The research instrument used the ACBT SOP, stopwatch and observation sheet. Data analysis used a paired t test. The results of the study showed that the average respiratory rate before ACBT exercise was 27x/minute with the highest value of 28x/minute and the lowest of 25x/minute and a standard deviation of 1.048, the average respiratory rate after ACBT exercise was 19.5x/minute with the highest value of 22x/minute and the lowest of 18x/minute and a standard deviation of 1.225. The results of the paired t-test analysis showed a  $\rho$  value  $<0.05$ , so  $H_1$  was accepted, meaning that there was an effect of ACBT training on changes in respiratory rate in Pneumonia patients at Ruang Jaya Negara Hospital, Wahidin Sudirohusodo Hospital, Mojokerto. ACBT can reduce respiratory rate in pneumonia patients. ACBT can increase ventilation so that air flow is smoother and huffing can remove sputum that inhibits air flow so that breathing is smoother and respiratory rate decreases.

**Keywords: ACBT, respiratory rate, pneumonia**