

ABSTRAK
**THE EFFECT OF ACTIVE CYCLE OF BREATHING
TECHNIQUE (ACBT) THERAPY ON RESPIRATORY RATE IN
PNEUMONIA PATIENTS AT RSI SAKINAH MOJOKERTO**

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Pneumonia is an infection of the lung parenchyma that can lead to impaired gas exchange, secretion accumulation, increased work of breathing, and an elevated respiratory rate (RR). One non-pharmacological intervention that can help improve respiratory status is the Active Cycle of Breathing Technique (ACBT), which comprises breathing control, thoracic expansion exercises, and the forced expiratory technique (huffing). This study aimed to determine the effect of ACBT therapy on the respiratory rate of pneumonia patients at RSI Sakinah Mojokerto. A pre-experimental design with a one-group pretest-posttest approach was employed. The study population consisted of all 40 pneumonia patients undergoing treatment at the facility. The sample comprised 35 respondents selected via purposive sampling based on inclusion and exclusion criteria. Respiratory rate was measured before and after ACBT therapy by counting the breathing frequency over one minute. Data analysis was performed using the Wilcoxon Signed Rank Test with a significance level of $p < 0.05$. The results showed that the mean respiratory rate was 23.60 breaths/minute (SD 1.311) prior to ACBT therapy and 19.00 breaths/minute (SD 1.268) following the therapy. The Wilcoxon Signed Rank Test yielded a p-value of 0.000 ($p < 0.05$), leading to the rejection of H_0 and acceptance of H_a ; there were 33 negative ranks, 0 positive ranks, and 2 ties. The effect size (r) of 0.85 indicated a very strong effect (large effect). ACBT therapy significantly affects the respiratory rate of pneumonia patients and supports the improvement of respiratory status by controlling breathing patterns, enhancing lung expansion, and mobilizing secretions.

Keywords: Active Cycle of Breathing Technique (ACBT), pneumonia, respiratory rate.

ABSTRAK
**PENGARUH TERAPI ACTIVE CYCLE OF BREATHING
TECHNIQUE (ACBT) TERHADAP RESPIRATORY RATE PADA PASIEN
PNEUMONIA**

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Pneumonia merupakan infeksi pada parenkim paru yang dapat menyebabkan gangguan pertukaran gas, penumpukan sekret, peningkatan beban kerja pernapasan, dan peningkatan *respiratory rate* (RR). Salah satu intervensi nonfarmakologis yang dapat digunakan untuk membantu memperbaiki kondisi respirasi adalah *Active Cycle of Breathing Technique* (ACBT), yang terdiri dari *breathing control*, *thoracic expansion exercise*, dan *forced expiratory technique* (*huffing*). Penelitian ini bertujuan untuk mengetahui pengaruh terapi ACBT terhadap *respiratory rate* pada pasien pneumonia di RSI Sakinah Mojokerto. Penelitian ini menggunakan desain pra-eksperimental dengan pendekatan *one-group pretest-posttest*. Populasi penelitian adalah seluruh pasien pneumonia berjumlah 40 pasien yang menjalani perawatan. Sampel penelitian berjumlah 35 responden yang dipilih menggunakan teknik *purposive sampling* sesuai kriteria inklusi dan eksklusi. Pengukuran *respiratory rate* dilakukan sebelum dan sesudah pemberian terapi ACBT dengan menghitung frekuensi pernapasan selama satu menit. Analisis data menggunakan uji *Wilcoxon Signed Rank Test* dengan tingkat kemaknaan $p < 0,05$. Hasil penelitian menunjukkan bahwa mean *respiratory rate* sebelum pemberian terapi ACBT sebesar 23,60 kali/menit dengan standar deviasi 1,311, sedangkan setelah pemberian terapi ACBT sebesar 19,00 kali/menit dengan standar deviasi 1,268. Hasil uji *Wilcoxon Signed Rank Test* menunjukkan $p\text{-value} = 0,000$ ($p < 0,05$), sehingga H_0 ditolak dan H_1 diterima, dengan *negative ranks* sebanyak 33, *positive ranks* 0, dan *ties* 2. Nilai *effect size* (r) sebesar 0,85 menunjukkan kekuatan pengaruh yang sangat besar (*large effect*). Terapi ACBT berpengaruh signifikan terhadap *respiratory rate* pada pasien pneumonia serta mendukung perbaikan kondisi respirasi melalui pengontrolan pola pernapasan, peningkatan ekspansi paru, dan mobilisasi sekret.

Kata kunci: *Active Cycle of Breathing Technique* (ACBT), pneumonia, *respiratory rate*.