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*Health Polytechnic of the Ministry of Health Bandung  
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*Application of Pursed Lips Breathing Exercise Therapy on Respiratory Rate and  
Oxygen Saturation of Patients with Chronic Obstructive Pulmonary Disease at  
PMI Hospital, Bogor*

*i-xiii + 55 pages + V Chapters, 7 Tables, 9 Appendices*

### **ABSTRACT**

*Chronic obstructive pulmonary disease (COPD) is a condition resulting from an increased chronic inflammatory response in the airways and lungs due to exposure to harmful gases, causing shortness of breath in COPD patients. To address shortness of breath in COPD patients, an appropriate intervention called Pursed Lips Breathing Exercise is needed. The purpose of this case study is to understand the application of Pursed Lips Breathing Exercise on respiratory rate and oxygen saturation in COPD patients at PMI Hospital Bogor. This case study uses a descriptive case study method. The sample was taken using observation sheets measuring respiratory rate and oxygen saturation before and after performing the Pursed Lips Breathing Exercise. The analysis results showed that the three respondents were middle-aged adults. For gender, two respondents were female, and one respondent was male. Regarding the duration of illness, two respondents had been ill for more than 12 months, and one respondent had been ill for 12 months or less. For the results of the examination before the Pursed Lips Breathing Exercise, it was found that in actions 1-6, all three respondents (100%) had abnormal respiratory rates. Additionally, for actions 1-6, all three respondents (100%) had abnormal oxygen saturation. After the Pursed Lips Breathing Exercise, in actions 1-6, all three respondents (100%) still had abnormal respiratory rates. However, in actions 1-6, all three respondents (100%) had normal oxygen saturation. In conclusion, there were no changes in respiratory rate and oxygen saturation values before and after the Pursed Lips Breathing Exercise. It is suggested that the application of Pursed Lips Breathing Exercise can be used as a non-pharmacological technique to reduce respiratory rate and increase oxygen saturation in COPD patients.*

**Keywords :** COPD, Respiratory Rate, Oxygen Saturation, Pursed Lips Breathing Exercise.

**Bibliography :** 27 sources (2009-2023)

Kementerian Kesehatan Republik Indonesia

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Penerapan Terapi *Pursed Lips Breathing Exercise* terhadap Frekuensi Pernapasan dan Saturasi Oksigen Pasien Penyakit Paru Obstruktif Kronis di Rumah Sakit Palang Merah Indonesia Bogor

i-xiii + 55 halaman + V BAB, 7 Tabel, 9 Lampiran

## ABSTRAK

Penyakit paru obstruktif kronik atau PPOK adalah suatu kondisi yang terjadi karena respon inflamasi kronis meningkat pada saluran udara dan paru-paru terhadap paparan gas berbahaya, sehingga pasien dengan PPOK dapat mengalami sesak napas. Untuk mengatasi sesak napas pada pasien dengan PPOK dibutuhkan intervensi yang tepat yaitu *Pursed Lips Breathing Exercise*. Tujuan dari studi kasus ini adalah mengetahui penerapan terapi *Pursed Lips Breathing Exercise* terhadap frekuensi pernapasan dan saturasi oksigen pasien PPOK di RS PMI Bogor. Metode studi kasus ini menggunakan studi kasus deskriptif. Pengambilan sample menggunakan lembar observasi pengukuran frekuensi pernapasan dan saturasi oksigen sebelum dan sesudah dilakukannya *Pursed Lips Breathing Exercise*. Hasil Analisa didapatkan untuk usia 3 responden berusia dewasa menengah. Untuk jenis kelamin 2 responden berjenis kelamin perempuan dan 1 responden berjenis kelamin laki-laki. Kemudian untuk lama sakit 2 responden dengan lama sakit >12 bulan dan 1 responden dengan lama sakit  $\leq$  12 bulan. Untuk hasil pemeriksaan 3 responden sebelum dilakukannya *Pursed Lips Breathing Exercise* didapatkan hasil untuk tindakan 1-tindakan 6, keseluruhan 3 responden (100%) frekuensi pernapasan dan saturasi oksigen tidak normal. Dan untuk hasil setelah dilakukannya terapi *Pursed Lips Breathing Exercise* didapatkan hasil untuk tindakan 1 - tindakan 6, keseluruhan 3 responden (100%) frekuensi pernapasan tidak normal dan saturasi oksigen normal. Kesimpulannya adalah tidak terdapat perubahan nilai frekuensi pernapasan dan saturasi oksigen sebelum dan setelah dilakukan terapi *Pursed Lips Breathing Exercise* ini. Saran penerapan terapi *Pursed Lips Breathing Exercise* ini dapat dijadikan salah satu teknik non-farmakologis untuk menurunkan frekuensi pernapasan dan meningkatkan saturasi oksigen pada pasien PPOK.

**Kata Kunci :** PPOK, Frekuensi Pernapasan, Saturasi Oksigen, *Pursed Lips Breathing Exercise*.

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