Effectiveness of Alternate Nostril Breathing vs Pursed Lip Breathing Exercise in COVID-19 Pneumonia Intensive Care Unit

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ABSTRACT

Background: In the end of 2019, urgent threat to global health occurred in the form of Novel Corona Virus. This virus is considered to be highly contagious Respiratory Disease which leads to severe effect on physical, cardiopulmonary and psychological activities. Physiotherapist are considered highly beneficial in treating respiratory complication and physical deconditioning. Respiratory Interventions for COVID pneumonia usually involve Active Cycle of Breathing technique, Relaxation Breathing technique, Huffing Coughing technique, resistive aerobic training, Incentive Spirometry. Out of these Alternate Nostril Breathing and Pursed lip breathing Exercise are two emerging techniques, but their efficacy is yet to be evaluated.

Methodology: This was an experimental study conducted in Liauqat National Hospital Karachi, Pakistan from May 2020 to Nov 2020. Total 40 participants with age group 20 to 60 diagnosed with COVID pneumonia admitted in intensive care unit, can coordinate in breathing exercise were included in this study. Total 7 days session were given to participants. Modified Borg Scale was used to measure breathlessness and SPO2 was measured before and after each treatment session. Data was analyzed using spss 22.0.

Results: The mean age of participants was 50.30±10.86, out of which 75% (30) were males and 25%(10) were females. Results showed that both interventions were effective in improving COVID pneumonia but Pursed Lip Breathing exercise was statistically more significant (3.17±7.56) (0.01) when compared to alternate nostril breathing (2.92±8.09)(0.02) in COVID pneumonia patients. There was significant decreased in Borg Scale scoring after these interventions (1.07±3.01) (0.03).

Conclusion: Alternate Nostril breathing, and pursed lip breathing are non-invasive, easy to administer techniques and should be used to improve oxygenation and lung physiological parameters in COVID Pneumonia.

Keywords: COVID pneumonia, Alternate Nostril breathing, Pursed Lip Breathing, Intensive care unit