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**Research Article** 

# STUDY OF EFFICACY OF BREATHING EXERCISES IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN A TERTIARY CARE HOSPITAL

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Article Received: February 2019	Accepted: March 2019	Published: April 2019				
Abstract:						
<i>Introduction:</i> Chronic obstructive pulmonary disease (COPD) is a major cause of stress and mortality.						
Aim: The present study was adopted to study the adequacy of respiratory activities in relation to the decrease of						
Dyspnea in COPD patients.						
Strategies: the study used a quantitative research approach, a partially tested test configuration and a test						
configuration after the test. The investigation was hypothetically supposed by the marginal work that depended on						
the objective hypothesis .60 subjects were selected. The examples were selected through a useful examination						
procedure. The BODE record was used to check for dyspnea. The information collected was divided by illustrative						
and derived measurements.						
Results: 63% of patients had a BODE list scor	e somewhere in the range of 4 and	d 7. In the test group, the average				
score before the test was 6.13 and the average	e score after the test was 2.96 an	nd was in one dimension of 0.001				
considerable. The post-interventional dimension	on of dyspnea of the two groups	s was examined using the Mann-				
Whitney test and showed an estimate p of 0.	001. The size of the dyspnea de	creases critically as it works on				
contrasting respiratory activities and on the	control collection. End: in patie	ents with COPD with respiratory				
activity, the size of the dyspnea decreases consid	derably.					
Keywords: Breathing exercises, BODE index, d	yspnoea, COPD.					

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### **INTRODUCTION:**

Perpetual obstructive pulmonary disease (COPD) is a major cause of stress and mortality and should be the third leading cause of mortality by 2020.1 It is hampered by insufficiently reversible wind restrictions and basic irritants affecting the lungs and personal satisfaction. COPD treatment should focus on pharmacological and non-pharmacological measures.

Non-pharmacological measures have recently been ignored. Breathing activities are a modest nonpharmacological strategy that causes them to adapt to the disease. The present study addressed the assessment of the feasibility of respiratory activities in reducing dyspnea in COPD patients in a tertiary care hospital of Punjab Pakistan.

## **METHODOLOGY:**

This was a half test of the test plan before the test. It was held between January 2013 and March 2013 in the outpatient department of the Department of Chest Medicine in Jinnah Hospital lahore. Sixty patients (30 patients with COPD in exploration and 30 patients with COPD in the control group) with COPD stage 2 and 3, who were stable with inhaled drugs, were selected. An advantageous investigation strategy was used. The descent of the subjects was accepted for an irregular task.

Exploratory collection and controlled collection. Included in patients in bed, people who were unable to perform spirometry / 6 second test track, patients with severe deterioration, with localized infarction necrosis and weak angina in the first months, oxygen immersion <88%, severe lung disease other than COPD, so critical neurological disorders and people who refused their consent was malignant lung growth, blocked. Patient measurement data, z. With age, sex, religion, education, occupation, residence, duration of illness, past medical history due to respiratory diseases, smoking and history of smoking in parcel years were found every day after the number of years smoked (number of packets of cigarettes), which smoked the individual), The BODE list is a wird.2 institutionalized device used to examine a patient's wheezing size due to an intervention It contains the B-Body Mass Record (BMI) = Weight in kilograms / height in m2; O - respiratory deterrence by controlling FEV1 (expiratory volume limited in a moment); D - dyspnea - classification scale, evaluated using dyspnea - classification scale of the Modified Medical Research Council (Table 1) and the capacity of E - exercise by a 6 - distance travelled on foot (6 MWD) is performed in meters second(Table 2).

## Table 1: MMRC Scale for dyspnoea.

Grade	Description of breathlessness		
0	I only get breathless with strenuous exercise		
1	I get short of breath when hurrying on level ground or walking up a slight hill		
	On level ground, I walk slower than people of the same age because of breathlessness or have to		
2	stop for breath when		
	walking at my own pace		
3	I stop for breath after walking about 100 yards or after a few min on level ground		
4	I am too breathless to leave the house or I am breathless when dressing		
Grade 0	Grade 0-1 Score: 0; Grade 2 Score : 1; Grade 3 Score : 2; Grade 4 Score : 3		

Table 2: BODE index

	Points on BODE index				
Variable	0	1	2	3	
	0	1	2	5	
$FEV_1$ (%)	$\geq 65$	50 - 64	36-49	$\leq$ 35	
6MWT	≥350	250 - 350	150-250	≤150	
MMRC	0-1	2	3	4	
$BMI(kg/m^2)$	> 21		< 21		

Scoring: 0 -10. As the score increases the dyspnoea level increases and the condition of the patient deteriorates. If the score decreases to zero, the patient is free of dyspnoea.

## Data collection process

The formal approval of the management to conduct the examination was acquired by the experts of the medical clinic. The agent reached each of the subjects independently and the reason for the investigation was announced. For each of the subjects a classification was guaranteed and the consent obtained was obtained. The subjects were selected based on the test criteria and subdivided for irregular tasks in the test and control groups. The specialist assured that the information retrieval process had no impact on patients' standard vision. The size of the dyspnea before the test was evaluated using the BODE file for the detection of tests and controls. Breathing activities included compressed lip respiration, diaphragmatic work, 6 minutes of walking preparation and upper arm work. They were shown to each person in the exploratory session by the specialist, and their execution was constantly followed for 30 minutes at the beginning of the day and 30 minutes during the night for 14 consecutive days, while the control group missed the other intercession as routine drugs. All activities were prepared and performed during each visit by MSc nurses. At this time, the size of the dyspnea after the test was examined using the BODE list in the experimental and control collection. After the evaluation of the test, the breathing activities were trained to also check the pile

#### Analysis and Interpretation

In reviewing the information, the information was isolated in appropriate parts to provide answers to the exploration questions and to test the theory. The reason for the translation of the information was to reduce it to an interpretable structure and draw conclusions from it. This segment demonstrates the study and translation of information collected from 60 patients with COPD to study the adequacy of respiratory activity in reducing dyspnea. The information has been classified and divided using different and inferential measurements and presented in the tables.

### **RESULTS:**

Sixty patients were enrolled at each meeting: the majority (80%) of patients were  $\geq 61$  years old, 16.6% were 51-60 years old, 1.7% had a place of 41-50 years and 1.7% had a place with an age of 30-40 years. 78.3% of them were boys. 70% of subjects had a substantial lesson, 11.7% had SSLC, 6.6% had in addition to two-dimensional training and 11.7% had a confirmation / degree diploma. 38.3% consisted of drivers, 18.3% of agricultural workers, 16.7% of modern skilled workers, 16.7% of domestic workers

and 10% of other employees (educators and drivers). 91.7% comes from countries and 8.3% from urban areas. In terms of spreading the disease, a large percentage (61.7%) was  $\geq$  5 years, 15% were 3-4 years, 13.3% were 1-2 years and 10% had a duration of less than 1 year. 58.3% had previously been hospitalized once or three times a year and 33.4% had been hospitalized several times in a year 8.3% were not yet in the hospital. 73.3% were smokers 61.36% had a packaging year  $\geq 50$  years, 18.18% had 30-50 years and 20.46% had a packaging year  $\leq 30$  years. The correlation of the results before and after the intervention of the dyspnea size test group showed that the mean and standard deviation in the preliminary test were 6.13 and 1.43 and that after the test it was 2.96 and 1.67 dyspnea after dyspnea (Table 3). At baseline, the mean and standard deviation in the BODE score before the test were 6.13 and 2.33, and those after the test were 5.76 and 2.02 and what are more medicines Examination of dyspnea after the test between the study and the control group showed that the average size of dyspnea after surgery at the test deviation was 2.96 with a standard deviation of 1.67 and a group of 5.76 check with a standard deviation of 2, 02 was. The differences in the size of the dyspnea of the two groups were examined in the Mann-Whitney test. The estimated score of 141.5 was measurably large at the size of 0.01, indicating that breathability was successful in reducing dyspnea in COPD patients

*Table 3:* Pre-test and Post-test values of BODE index in patients of both groups

Group	Mean ± SD				
Experimental group (n = 30)					
Pre-test	$6.13 \pm 1.43$				
Post-test	$2.96 \pm 1.67$				
Control Group (n = 30)					
Pre-test	$6.13 \pm 2.33$				
Post-test	$5.76 \pm 2.02$				

## **DISCUSSION:**

The disease of endless obstructive aspiration is a never-ending disease and, once it has occurred, it cannot be alleviated, but it can be controlled very well. COPD is a debilitating disease that affects today's daily routine. In addition to pharmacological measures, some non-pharmacological techniques must be provided to change with the disease. The study clearly shows that respiratory activities are a convincing and reasonable non-pharmacological intervention that leads them to reduce dyspnea and encourage them to change with the condition of infection. The main objective of this study was to evaluate the size of dyspnea in patients with COPD. The results of this study showed that a larger part had a score before the BODE list anywhere in the range of 4 and 7, more than a quarter (30%) had a value in the range of 8 and 10 and 6, 67% somewhere had a value of the range of 0 and 3. The results of the examination showed that a larger part of the patients had a BODE core files somewhere in the range of 4 and 7. The prolonged BODE-list score shows that an abnormal dyspnea condition is present, and that this was a serious problem in patients with COPD. This result was predictable in a cross-sectional study conducted by Polatlı M, Bilgin C, inter alia, due to COPD in daily life practices and in the patient's lifestyle. They found that dyspnea was the bestknown indication (83.1%). The study found that the three main requests for COPD treatment of patients were able to breathe (24.1%), walk (17.1%) and walk (11.7%) shortness of breath (43.3%) was the main reason why treatment is needed.3 The second objective of the study was to determine the effects of respiratory activity on dyspnea. Our study shows that respiratory activities are successful in reducing dyspnea in patients with COPD. This was corroborated by a study in which the results suggest that respiratory activities are a strong intercessor to reduce dyspnea. A study was conducted by Jyothy M and P D'Silva to study the effects of profound respiratory activity on the lung capacity of patients with incessant wind flow. The results showed that the mean survival value of the exploratory collection was 26.80 and that of the control group was 6.9 (p < 0.05). As a result, deep breathing activities were critically measurable to improve the aspiration capacity of patients with limitation of infinite wind flow.4 The third objective was to determine the relationship between the size of the dyspnea of COPD patients and the selected measurement factors. We did not find such an extraordinary connection. The results of the aforementioned study were supported by a study on the development of COPD as a pandemic in India, which showed that the smoking relationship with COPD in many countries was high: the share of opportunities was 2.65 in India, 2.57 in China and 2.12 in Japan. It has been observed that practically all types of smoking items, e.g. Like cigarettes and "bidis", which are used in different countries, generally with COPD associated with stehen.5 There were no comparative studies that focused on the feasibility of respiratory activity and various factors influencing COPD.

#### **CONCLUSION:**

Breathing activities were viable in lessening dyspnoea among COPD patients. Quiet instruction and preparing projects ought to be efficiently arranged and consistently led for patients to refresh their insight. Further research is expected to investigate progressively correlative treatments to decrease dyspnoea among COPD patients.

#### **REFERENCES:**

- Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. http://www.goldcopd.org/. 2006 [cited 2006]. Available from http://www. who.int/respiratory/copd/GOLD\_WR\_06.pdf
- Celli BR, Cote CG, Marin JM *et al.* The Body-Mass Index, Airflow Obstruction, Dyspnea, and Exercise Capacity Index in Chronic Obstructive Pulmonary Disease. *N Engl J Med* 2004; 350:1005-12
- 3. Polatlı M, Bilgin C, Saylan B, *et al.* A cross sectional observational study on the influence of chronic obstructive pulmonary disease on activities of daily living: the COPD-Life study. *Tuberk Toraks* 2012;**60**:1-12.
- 4. Jyothy M, D'Silva F. A study on effectiveness of deep breathing exercise on pulmonary function among patients with chronic airflow limitation. *International Journal of Nursing Education* 2011; **3**: 34-7.
- 5. Jindal S K, Emergence of chronic obstructive pulmonary disease as an epidemic in India. *Indian J Med Res* 2006; **124**:619-30.