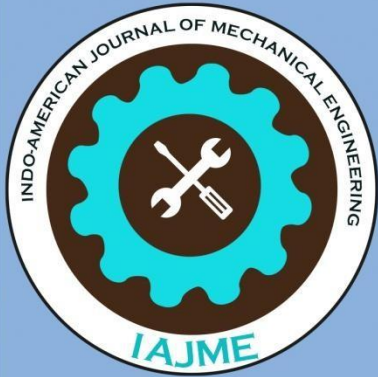




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EFFECT OF BREATHING EXERCISES ON PULMONARY FUNCTION AMONG COPD PATIENTS

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ABSTRACT

In the context of yoga, breathing exercise refers to a particular kind of regulated breathing. A common technique is to shut one nostril while breathing in and the other while breathing out. The steps are then taken backward and repeated. Many people believe that breathing through each nostril in turn will help them feel better physically and mentally. ¹

Methods and Materials This study used a proper experimental design and a quantitative methodology. The research was place at Jaipur's Imperial Hospital. Patients diagnosed with chronic obstructive pulmonary disease were the focus of this study's statistically significant sample size (n=40).

The acquired findings were deemed statistically significant at the 5% level of significance (p 0.05). Tables, graphs, and diagrams were used to illustrate the data.

Discussion Breathing exercises are beneficial for people with COPD at any stage of the illness because they increase exercise capacity, reduce symptoms, and improve quality of life.

Keywords: Exercises in deep breathing and the risk of chronic obstructive pulmonary disease: an efficacy study

INTRODUCTION:

Middle-aged and elderly persons are more at risk for developing chronic obstructive pulmonary disease (COPD). ²

Worldwide, COPD (chronic obstructive pulmonary disease) is becoming an increasingly serious medical issue. Exercise capacity and health status in people with mild to severe COPD have been shown to improve after one year of integrated disease management (IDM), but long-term outcomes are still missing in primary care. ³ Formal cardiopulmonary exercise testing shows that patients with COPD have reduced exercise capacity and low oxygen consumption ($Vo(2)$), as well as worse ratings

on health-related quality of life questionnaires. When examined separately, these three factors have varying associations with COPD mortality. The 6-minute walk test (6MWT) is one of four factors that make up the multidimensional BODE (body mass index [BMI], airflow obstruction, dyspnea, and exercise capacity in COPD) index, which is a predictor of survival in COPD. ⁴

isease severity indicates the extent to which chronic obstructive pulmonary disease (COPD) negatively affects health. Different quality of life surveys are often used to evaluate this. ⁵

Though smoking greatly increases the likelihood of developing COPD, the similarities and differences in clinical presentation between smokers and nonsmokers with COPD are not well defined.

FUNDING AND METHODS:

The methodology to be followed in this study is the quantitative research method.

Manipulation, control, and randomization are essential components of any good experimental design.

It's a complete coin flip (Pre test- Post test with control group)

Jaipur, India, at the Imperial Hospital

Specifically, the goal is to reach all COPD patients hospitalized to a certain Jaipur hospital.

Gettable: Easily obtainable at the time the information was gathered.

Those patients who met both the all-encompassing and strict requirements are the samples. Sampling Strategy: A lottery-based, probabilistic, simple-sample strategy. Measurement of a Sample Two hundred COPD patients from a single Jaipur hospital will provide the data. Techniques for Collecting Data Part-I, Part-II, and Part-III of the Observation Checklist were used to collect data on how often breathing exercises were performed.

RESULTS:

Table: Socio Demographic data

Gender distribution		
Gender	n	In %
Male	6	60%
Female	4	40%
Frequency distribution of age		
Age Interval	n	In %
20 - 30	3	30%
31 - 40	3	30%
41 - 50	2	20%
51 - 60	2	20%
distribution of marital status		
Marital status	n	In %
Married	7	70%
Single	2	20%
Divoced / Widow	1	10%
Distribution of educational status		
Educational status	n	In %
Formal Education	2	20%
Primary& Middle education	6	60%
Secondary education	1	10%
Graduate and above	1	10%
Distribution of occupational status		
Occupational status	n	In %
Self-employment	1	10%
House wife	3	30%
Private employee	5	50%

Govt employee	1	10%
Distribution of income/capita		
Income Interval	n	In %
Rs. < 3000	2	20%
3000-5000	3	30%
5001-10000	2	20%
10001-15000	1	10%
> 15000	2	20%

Table 2:

Distribution of Residential status		
Residential status	n	In %
Urban	6	60%
Rural	4	40%
Distribution of family type		
Family type	n	In %
Nuclear	2	20%
Joint	6	60%
Extended	2	20%
Distribution of allergy type		
Allergy type	n	In %
Food	2	20%
Environment	2	20%
plants	4	40%
Animal	2	20%
Previous experience of hospitalization		
Hospitalization experience	n	In %
Yes	2	20%
No	8	80%
Distribution of DBE experience		
DBE experience	n	In %
Yes	6	60%
No	4	40%
Distribution of smoking habits		
Smoking habits	n	In %
Yes	3	30%
No	7	70%
Distribution of no. of cigarettes /day		
No. of cigarettes/ day	n	In %
2 - 4	0	0%

4 - 6	3	30%
6 - 8	3	30%
> 8	4	40%

Table 3: Comparing before and after effect protocol assessment of control group

Variable	Before	After	Paired t - test	P - Value	Significance
FIV	698.3 ± 60.77	728.4 ± 68.13	-3.325	0.00444	Significant
PEFR	239 ± 26.26	255 ± 17.52	-1.9	0.04492	
Oxygen saturation	77.4 ± 5.39	82.1 ± 4.46	-3.46	0.00358	
Chest expansion	3.35 ± 0.24	3.62 ± 0.303	-4.83	0.00047	Highly significant
BHT	12.8 ± 4.58	16.4 ± 4.1	-4.13	0.00128	Significant

In control group FIV, PEFR, oxygen saturation and BHT were significant and chest expansion were highly significant

Table 4: Comparing before and after effect of protocol assessment of treatment group

Variable	Before	After	Paired t - test	P - Value	Significance
FIV	717.4 ± 42.74	1083.6 ± 65.24	-21.14	0.000001	All are highly significant
PEFR	251.7 ± 35.19	455.6 ± 127.4	-5.03	0.00036	
Oxygen saturation	79.2 ± 4.67	93.2 ± 2.89	-10.01	0.00001	
Chest expansion	3.46 ± 0.22	53.2 ± 5.98	-24.86	0.000001	
BHT	13.9 ± 5.89	34.9 ± 7.29	-14.38	0.000001	

DISCUSSION Breathing exercises performed on a regular basis have been shown to lessen the severity of COPD, a lung condition that mostly affects persons over the age of 65. Analysis shown that self-management regimens may significantly improve exercise capacity and certain characteristics of self-efficacy in people with chronic obstructive pulmonary disease (COPD). Recovery from an exacerbation may be expedited via regular practice of breathing exercises and monitoring of any symptoms.

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