IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

A Study to Assess the Effectiveness of STP Regarding Knowledge of Preventive Measures on COPD Among Old Age People in Selected Village Rohtas Bihar

Sudha Patel[1], Sudhanshu Kumar[2], Sudhir Kumar[3], Dipu Kumar[4]
B.Sc. Nursing 4th year Intern Students[1,2,3]
Tutor, MSN Department[4]
Narayan Nursing College, Gopal Narayan Singh University, Sasaram, India

Abstract: *INTRODUCTION: COPD is a chronic airway limited disease as characterized by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. The more familiar terms 'chronic bronchitis' and 'emphysema' are no longer used, but are now included within the COPD diagnosis. COPD is not simply a "smoker's cough" but an under-diagnosed, life-threatening lung disease. According to WHO report that the 3.29 million of people suffer with the COPD death, in nearly 90% of COPD death in those under 70 years of age occur in developing countries. The most cause of COPD the including environmental exposure to tobacco, smoke, indoor air pollution and occupational dusts, fumes, and chemicals are important risk. The early is most common treatment of COPD economic preventable management is quite smoking, and is needed to slow the progression of symptoms.*
AIM: To assess the effectiveness of STP on knowledge of preventive measures on COPD among old age people.
METHODOLOGY: The pre-experimental one group pre-test and post-test design was conducted at Takiya, Sasaram, Rohtas, Bihar from 6/2/23 to 10/2/23. The conceptual framework utilized in this study was based on General System theory of "Ludwig von Bertalanffy". A self-structured questionnaire method was used to assess the pre-test level of knowledge of preventive measures on COPD among old age people in selected village Rohtas Bihar by adopting probability random sampling technique. Immediately after pre-test STP was implemented just after the implementation post-test was conducted by using same questionnaire method. The result was analyzed.
RESULTS: Before implementation of STP the knowledge level of old age people, (32) had poor knowledge, (28) had average knowledge and none of them had good knowledge of preventive measures on COPD among old age people in selected village Rohtas Bihar and the pre-test mean knowledge score was. After implementation of STP the knowledge level of old age people, none of them had poor knowledge, (31) had average level of knowledge and (29) had good knowledge of preventive measures on COPD among old age people in selected village Rohtas Bihar. The post-test mean score (14.72) of knowledge of preventive measures on COPD among old age people were comparatively more than their pre-test mean knowledge score (7.98). It confirms that, there was increase in knowledge of preventive measures on COPD among old age people after the administration of STP.
CONCLUSION: At last, as a researchers, we concluded that there is increase in knowledge of preventive measures on COPD among old age people after implementation of STP and there is no association between variable and sociodemographic variables.

Keywords: Effectiveness, STP, Knowledge, Old Age People, COPD.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

I. INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is a progressive life threatening lung disease that causes breathlessness and predisposes to exacerbations and serious illness.The global burden of disease (2016) study reports a prevalence of 251 million cases globally, it is estimated that 3.17 million deaths were caused by the disease in2015 e.g., 5%of all deaths globally in that year and more than of populations 90%deaths occur in developing countries.According to WHO Gender prevalence varied widely by Global burden of diseases sub regions, with the highest female prevalence found in North America (8.07% vs. 7.30%) and in participants in urban settings (13.03% vs. 8.34%) and more than 90% of COPD death occur in developing countries such as India, Pakistan, Bangladesh. In India Non-Communicable Diseases were estimated to have accounted for 53% of all deaths and44% of disability- adjusted life-years (DALYs) lost in2005. Of these chronic respiratory diseases accounted for 7% deaths and 3% DALYs lost. India also has had the ignominy of experiencing the "highest loss in potentially productive years of life worldwide" in2005. Crude estimates suggest there are 30 million COPD patients in India. India contributes a significant and growing percentage of COPD mortality which is estimated to be amongst the highest in the world; i.e., more than 64.7% estimated age standardized death rate per 100,000 amongst both sexes. This would translate to about 556,000 in case of India (>20%) out of a world total of 2,748,000 annually. **According to UNICEF** Suggest that the 71% (41 million) of currently annual death in the world due to the NCD (invisible epidemic ds) and each year 1.2 million population who belong due to 20 years die from treatable NCDs such as COPD and cancer.

Aim:

To assess the effectiveness of STP on knowledge of preventive measures on COPD among old age people.

Objective:

1. To assess the level of knowledge and preventive measures on COPD among old age people.
2. To assess the effectiveness of STP on knowledge and preventive measures on COPD among old age people.
3. To find out association between pretest knowledge score regarding knowledge of preventive measures of COPD and their socio demographic variables.

II. METHODOLOGY

The pre-experimental one group pre-test and post-test design was conducted at Takiya, Sasaram, Rohtas, Bihar from 6/2/23 to 10/2/23. The conceptual framework utilized in this study was based on General System theory of "Ludwig von Bertalanffy". A self-structured questionnaire method was used to assess the pre-test level of knowledge of preventive measures on COPD among old age people in selected village Rohtas Bihar by adopting probability random sampling technique. Immediately after pre-test STP was implemented just after the implementation post-test was conducted by using same questionnaire method. The result was analyzed.

III. RESULT

Table -1 Distribution of study participants according to their socio-variables

N=60

Socio demographic variable	Frequency	Percentage (%)
1.Age (in year)		
50- 55	14	23.3
56-60	14	23.3
61-65	11	18.3
66 an above	21	35
2. Gender		
Male	39	65
Female	21	35

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

3. Educational status		
No formal education	29	48.3
Primary education	12	20
Higher secondary	13	21.7
Intermediate/ ITI/ Diploma	4	6.7
Graduate & above	2	3.3
4. Occupational History		
Employee	4	6.7
Farmer	23	38.3
Daily wage worker	13	21.7
Others	20	33.3
5. Family income		
10,000-20,000	28	46.7
20,001-30,000	15	25
30,001-40,000	12	20
Above 40,000	5	8.3
6. Marital status		
Married	49	81.6
Unmarried	3	5
Separated	1	1.7
Widow/widower	7	11.7
7. Personal Habits		
Cigarette	5	8.4
Alcohol	2	3.3
Tobacco	23	38.3
Others	30	50

Majority 23.333% population lied in 50-55 years age group, 23.333% population lied in 56-60 years age group, 18.333% population lied in 61-65 years age group and 35% population lied in 66 years and above group.

Majority 65% population lied in male group, and 35% population lied in female group.

Majority48.3% population lied in nonformal group, 20% population lied in primary group, 21.7% population lied in higher sec. group and 6.7% population lied in intermediate group, 3.3% population lied in Graduate and above group.

Majority of 6.7% population lied in employee group, 38.3% population lied in farmer group, 21.7% population lied in daily wage worker group and 33.3% population lied in others group.

Majority of 46.7% population lied in 10,000- 20,000 income group, 25% population lied in 20,001-30,0000 income group, 20% population 30,001-40,000 income group and 8.3% population lied in above 40,000 income group.

Majority of 81.6% population lied in married group, 5% population lied in unmarried group, 1.7% population lied in separated group and 11.7% population lied in widow/widower group.

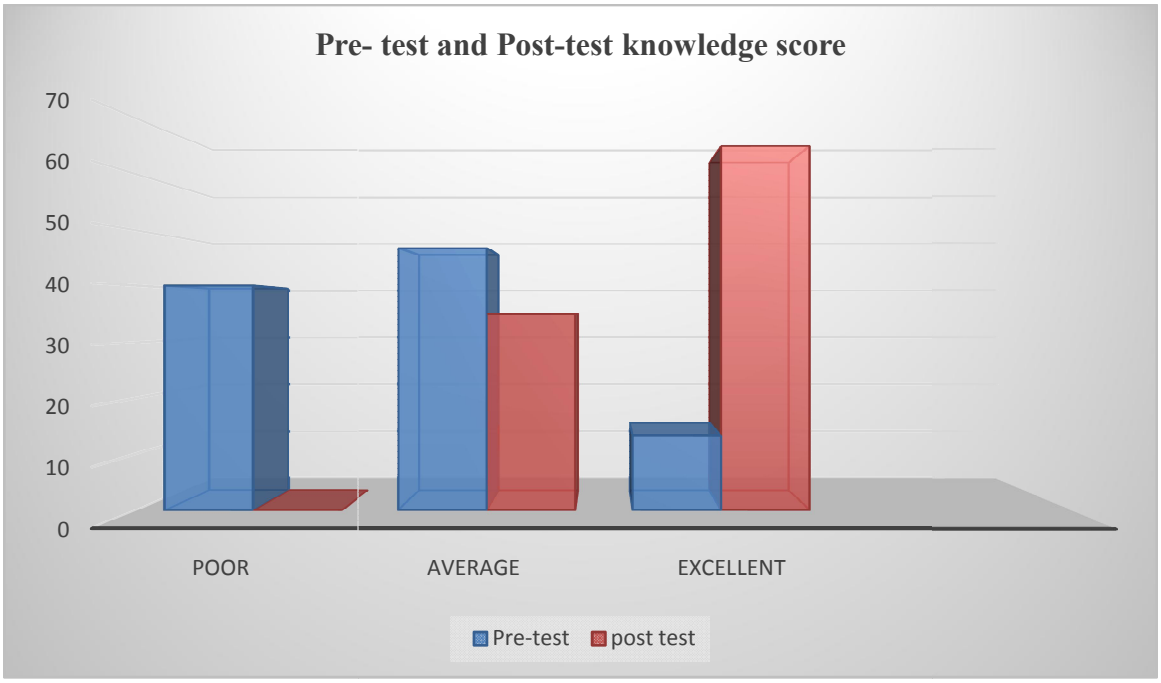
Majority of 8.4% population lied in cigarette group, 3.3% population lied in alcohol group, 38.3% population lied in tobacco group and 50% population lied in above others group.

Knowledge score	**Pre-test score**		**Post-test score**	
	F	**%**	**F**	**%**
Poor knowledge	32	53.3	00	00
Average knowledge	28	46.7	31	51.7
Good knowledge	00	00	29	48.3

Table 2: Distribution of pre-test knowledge score and post-test knowledge score

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

Fig 1: Bar graph showing the distribution of study participants of pre-test knowledge score and post-test knowledge score.



Data presented in the table 2 and figure 1 shows that out of 60 study participants highly majority of 40% of old age people had poor knowledge, 46.66% of old age people had average knowledge and 8% of old age people had good knowledge during the pre-test knowledge score. After the planned teaching programme differently changed the old age people knowledge, whereas the post-test knowledge score majority of 35% of old age people had average knowledge and 65% of old age people had good knowledge regarding the prevention of COPD.

Table 3: Showing the distribution of range, mean and standard derivation, paired "t" value of study participants as per pre-test knowledge score and post- test knowledge score

Knowledge Score	Range	Mean score	SD	Mean difference	df	Paired "t" value	P value
Pre- test	1-7 (df=59)	7.98	3.122	7.983	59	12.092	0.0001
Post-test	8-15 (df=59)	14.72	3.048				

Table 3 illustrates that the post – test knowledge score ranged from 8-15 (df=59) which is higher than the pre- test knowledge score of 1-7 (df=59) the mean posttest knowledge score of (14+_ 3.05) was higher than pre -test knowledge score (7+- 3.21). The paired "t" value comparison was 12.092 while df was 59 and the p-value for this comparison was significant (0.0001) which is less than the normal p-value (<0.05) study concludes that the H_1 and H_2 (research hypothesis) is accepted.

IV. CONCLUSION

At present study we aimed to assess the effectiveness of STP regarding knowledge of preventive measures on COPD among old age people in selected village Rohtas Bihar**.** Among the available 60 sample, majority of the sample depicted pre-test poor knowledge level at 40% placing them as adequately informed, secondly 46.66% of the sample data were at average knowledge and only 8% of the sample showed result for good knowledge. Post -test poor knowledge 0%, secondly 35% of the sample data were ta average knowledge and only 65% of the sample showed result for good knowledge. Pertaining to association between socio demographic variables and level of knowledge and opinion partial relation was found using Chi-squared test. As per Chi-squared test only old age people had influence over the level of knowledge and perception as its chi square value was less than 0.005.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

REFERENCES

[1]. Nair Ravindran Ushsa (2009) chronic obstructive pulmonary disorder. Text Book of medical surgical nursing. 1st edition (518-21)

[2]. Richa Sharma, Dr. Parampal Kaur Cheema, Harpreet Kaur, A Pre-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding COPD and Pulmonary Rehabilitation among COPD Patients in Selected Hospitals of District Hoshiarpur, Punjab, Volume 10 Issue 11, November 2021, International Journal of Science and Research (IJSR), Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

[3]. Praveen S Patel, Prevention of lung cancer among cement factory employees. A study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Prevention of Selected Respiratory Diseases among Cement Factory Workers Attending ESI Dispensary at Bagalkot, Karnataka International Journal of Nursing and Medical Science 2015:4(3); 401 – 410

[4]. WHO. [accessed Feb 14, 2015];The top 10 causes of death. 2014 May; http://www.who.int/mediacentre/factsheets/fs310/en/

[5]. Drummond MB, Buist AS, Crapo JD, Wise RA, Rennard SI. Chronic obstructive pulmonary disease: NHLBI workshop on the primary prevention of chronic lung diseases. Ann Am Thorac Soc. 2014;11(suppl 3):S154–60. [PMC free article] [PubMed] [Google Scholar]

[6]. Saeid Safiri, avad Ahmadian Heris, Burden of chronic obstructive pulmonary disease and its attributable risk factors in 204 countries and territories, 1990-2019: results from the Global Burden of Disease Study 2019, (Published 27 July 2022), https://www.bmj.com/content/378/bmj-2021-069679

[7]. C. Raherison, P-O Girodet, Epidemiology of COPD, European Respiratory Review 2009 18: 213-221, https://err.ersjournals.com/content/18/114/213

[8]. Debra Sullivan, Ph.D., MSN, R.N., CNE, COI — By Jen Thomas — Updated on Jul 2, 2020, https://www.healthline.com/health/copd/facts-statistics-infographic

[9]. Lebargy F, Occupational Risk Factors for COPD: A Case-Control Study, Plos one, 03 Aug 2016, 11(8):e0158719, Europe PMC, https://europepmc.org/article/MED/27487078

[10]. Langer Daniel (2019), , https://europepmc.org/article/MED/27487078

[11]. Craig P Hersh , John E Hokanson , David A Lynch , George R Washko Barry J Make James D Crapo , Edwin K Silverman ; COPDGene Investigators, Family history is a risk factor for COPD, 2011 Aug;140(2):343-350.doi: 10.1378/chest.10-2761. Epub 2011 Feb 10. National Library of Medicine, https://pubmed.ncbi.nlm.nih.gov/21310839/

[12]. Adiveppa. S. Padadali, A study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Prevention of Selected Respiratory Diseases among Cement Factory WorkersAttending ESI Dispensary at Bagalkot, Karnataka, 2021,https://www.semanticscholar.org/paper/A-study-to-Assess-the-Effectiveness-of-Structured-Padadali/2df378b90a9dacbe0c7e50a07cb8becd1a4bac51

[13]. Angel M. S., A Study to assess the effectiveness of STP on prevention of exacerbation among COPD clients in selected super specialty hospital, Bangalore city, international journal of science and research (ijsr), volume 10 issue 11, november 2021, https://pubmed.ncbi.nlm.nih.gov/21310839/

[14]. Eswari S,Effectiveness of STP on pulmonary rehabilitation among patients with COPD,International journal of scientific research, https://journal.chestnet.org/article/S0012-3692(20)34927-8/fulltext

[15]. Lovekirat Singh1 , Dr. Priyanka Chaudhary2 , Mrs Raman Deep Kaur3, A Descriptive Study to Assess the Knowledge and Practices Regarding COPD Prevention and Management among Staff Nurses in Selected Hospital of District Patiala, International Journal of Trend in Scientific Research and Development (IJTSRD), Volume 5 Issue 6, September-October 2021 , https://www.ijtsrd.com/papers/ijtsrd47623.pdf

[16]. A.S. Reda,a quasi-experimental study of the effect of a comprehensive blended health educational program on self-management practices among patients with chronic obstructive pulmonary disease Heart Lung. 2022 Jul 25;56:133-141. Doi: 10.1016/j.hrtlng.2022.07.005. Online ahead of print.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 3, Issue 2, April 2023
Impact Factor: 7.301

[17]. Parag Rishipathak, Anand Hinduja, Shrimathy V., Navnita Sengupta, A Study to Assess the Knowledge, Attitude and Practice about Management of Acute Exacerbation of Chronic Obstructive Pulmonary Disease amongst EMS Professionals in Pune, India Vol. 14 No. 4 (2020), Indian Journal of Forensic Medicine & Toxicology https://medicopublication.com/index.php/ijfmt/article/view/12780

[18]. Patel Disha , Assessment of knowledge, attitude, and behavior about the disease process and physiotherapy management in patients with chronic obstructive pulmonary disease: A qualitative study J Educ Health Promot. 2019 Jan 29;8:15. doi: 10.4103/jehp.jehp_209_18. eCollection 2019.

[19]. Mayhob Mona Mohamed, Nurses' Knowledge, Practices and Barriers Affecting a Safe Administration of Oxygen Therapy, International Organization of Scientific Research, 2018, https://www.semanticscholar.org/paper/Nurses%27-Knowledge%2C-Practices-and-Barriers-Affecting-Mayhob/0fa914e0e15d2a6d55b2d235e383e85c88a3007a#:~:text=%22Oxygen%20therapy%20is%20like%20a%20two%20edged%20sword%22%2C,and%20barriers%20affecting%20asafe%20administration%20of%20oxygen%20therapy.

[20]. MahranGhada, Comparative Study Of Critical Nurses' Knowledge And Practice Before And After Education Program About Acute Exacerbation Of Chronic Obstructive Pulmonary Disease, IOSR Journal of Nursing and Health Science (IOSR-JNHS), Volume 7, Issue 2 Ver. VII (Mar-Apr .2018), PP 79-89, https://www.researchgate.net/publication/324656532_Comparative_Study_Of_Critical_Nurses%27_Knowledge_And_Practice_Before_And_After_Education_Program_About_Acute_Exacerbation_Of_Chronic_Obstructive_Pulmonary_Disease

[21]. Godoy iida de, A cross sectional study to evaluate the knowledge of nurses from the health care network of Botucatu, SP, Brazil, about COPD, 2017, National Library 0f Medicine, https://pubmed.ncbi.nlm.nih.gov/32658654/

[22]. Nair Ravindran Ushsa (2009) chronic obstructive pulmonary disorder. Text Book of medical surgical nursing. 1st edition (518-21)

[23]. Black. Joyce, Hawks Hokanson jane (2009) Chronic Obstructive Pulmonary Disorder Blacks Medical Surgical Nursing 8th edition (1587-1590)

[24]. Chugh SN (2009) Chronic Obstructive Pulmonary Disease, Medicine for nurses 1st edition (147-149)

[25]. Correia cecy (2017) Chronic Obstructive Pulmonary Disease, Medical surgical nursing systemic disease.1st edition (138-139)

[26]. Basavanthappa BT (2011) Chronic Obstructive Pulmonary Disease, essential of Medical surgical nursing 1st edition (59-60)

[27]. DEVI Sanatombi Elsa, Chintamani, (2011) Chronic Obstructive Pulmonary Disease, MOROWEY'S SURGERY FOR NURSES,7th edition, (111-125)

[28]. M Bhat Sriram (2006) Chronic Obstructive Pulmonary Disease, SRB'S, Surgery For nurses, 1st edition (34-40)

[29]. Ansari Javed, Kaur Davinder (2017) Chronic Obstructive Pulmonary Disease textbook of medical surgical nursing-1st edition (354-366)

[30]. Panwar P K (2018) Chronic Obstructive Pulmonary Disease, Medical surgical nursing 5th edition (45- 46)

[31]. Madhavi S, Sharma K, Suresh K (2000) Chronic Obstructive Pulmonary Disease, Brunner and Suddarth's Textbook of Medical Surgical Nursing, South Asian edition, Volume 1st (433-468)