



# Knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients in selected hospitals of Moga

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Chronic obstructive pulmonary disease is one of the major preventable chronic respiratory diseases characterized by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response in the airways and the lung to noxious particles or gases. India is a large country comprising of people with varying socio demographic profiles, cultural practices and ethnicities. Hence the risk factors for chronic obstructive pulmonary disease are also likely to be different across various Indian states and regions. Together chronic obstructive pulmonary disease, asthma and other respiratory diseases are the second leading cause of death in India.

India accounts for a quarter of deaths caused worldwide by the chronic obstructive pulmonary disease. According to the latest Global Burden of Disease study 32 lakh deaths caused in 2015 by chronic obstructive pulmonary disease, 8 lakh occurred in India. The number of deaths from chronic obstructive pulmonary disease increased by 11.6% between 1990 and 2015. The Global Burden of Disease report in 2012 had shown that chronic obstructive pulmonary disease had become the third leading cause of death in the world. The study has found that the disease burden due to chronic obstructive pulmonary disease was highest in India.

## Statement of Problem

A descriptive study to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients in selected hospitals of Moga, Punjab.

## Objectives of the study

1. To assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients in selected hospitals of Moga, Punjab.
2. To find out the relationship of knowledge score between selected demographic variables such as age (in years), gender, educational status of patient, type of family, family monthly income, occupation of patient, dietary pattern, marital status, area of residence and source of information.
3. To develop and distribute an information booklet for patients regarding risk factors and prevention of chronic obstructive pulmonary disease.

## Operational definitions

1. **Assess:-** It refers to measurement of the knowledge of patients regarding chronic obstructive pulmonary disease.
2. **Knowledge:-** It refers to factual information about the risk factors and prevention of chronic obstructive pulmonary disease among patients suffering from respiratory diseases.
3. **Risk Factors:-** It refers to something that increases the chance of developing a disease such as cigarette smoking, tobacco, air pollution, occupational exposure and reoccurring respiratory infections.
4. **Chronic Obstructive Pulmonary Disease:-** It refers to a chronic lung disease that causes obstructed airflow from the lungs.
5. **Prevention:-** It refers to the various measures to protect the patients from chronic obstructive pulmonary disease.
6. **Patients:-** It refers to persons who are suffering from respiratory diseases and receiving medical care at hospital.

## Conceptual framework

The conceptual framework of the present study was based on the health promotion model proposed by Pender (1982).

## Literature Review

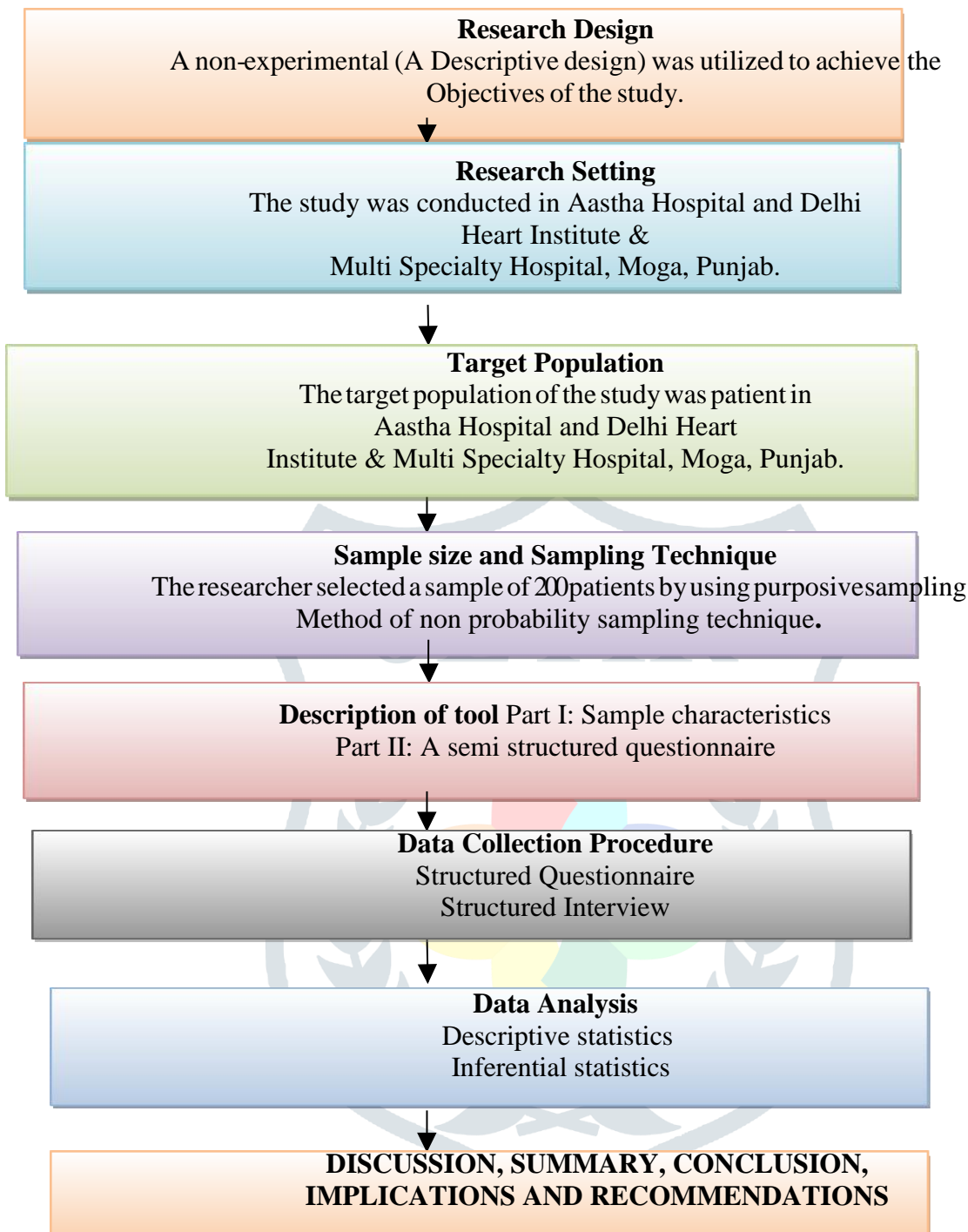
The Review of literature relevant to the present study was discussed under the following headings.

**Part I-** Literature related to prevalence of chronic obstructive pulmonary disease.

**Part II-** Literature related to risk factors of chronic obstructive pulmonary disease.

**Part III-** Literature related to knowledge and prevention of chronic obstructive pulmonary disease.

## SCHEMATIC DIAGRAM OF RESEARCH METHODOLOGY



### Research design

For the present study, non experimental (A Descriptive design) was utilized to achieve the objective of the study.

### Research setting

The present study was conducted at Aastha Hospital and Delhi heart institute & multispecialty hospital, Moga

### Target population

The target population for the present study were patients who was attending outpatient department at Aastha Hospital and Delhi heart institute & multispecialty hospital Moga, Punjab.

## Sample size and Sampling technique

Sample sizes for the present study were 200 patients who were attending outpatient department at Aastha Hospital and Delhi heart institute & multispecialty hospital Moga, Punjab. The sample was selected by using purposive sampling method of nonprobability sampling technique.

## Inclusion criteria

- The patients who were willing to participate in the study.
- The patients who were available during the time of data collection.

## Demographic variables

In this study the demographic variables such as age (in years), gender, educational status of patient, type of family, family monthly income, occupation of patient, dietary pattern, marital status, area of residence and source of information.

## Selection and Development of the tool

A semi structured questionnaire was prepared to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among the patients in the selected hospitals of Moga, Punjab.

## Description of tool

The tool was consisting of the following parts:

### Part 1- Sample characteristics

It consisted of personnel information about subjects such as age (in years), gender, educational status of patient, type of family, family monthly income, occupation of patient, dietary pattern, marital status, area of residence and source of information.

**Part 2-** A semi structured questionnaire consisting of multiple choice questions to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among the patients. Each question was containing one correct and three incorrect responses. The correct response was awarded one mark and incorrect response awarded zero mark.

## Criterion measures

Criterion measures used in this study as follows:

Part I: was related to sample characteristics which were not included in scoring system.

Part II: A semi structured questionnaire to assess the knowledge regarding risk factors and prevention of chronic

obstructive pulmonary disease among the patients containing 30 questions.

The criterion measures used in this study was knowledge score on risk factors and prevention of chronic obstructive pulmonary disease. The knowledge score refers to the total obtained score on knowledge items in the structured questionnaire by patients.

### The knowledge score was categorized into 3 levels

Level of knowledge	Score	%
Good	23-30	76-100
Average	16-22	51-75
Belowaverage	≤15	≤50

Maximum score-30

Minimum score-0

### Content Validity of tool

Content validity of tool was confirmed by the expert opinions and suggestions regarding the relevance of the items. The structured tool consisting of knowledge questionnaire regarding risk factors and prevention of chronic obstructive pulmonary disease was circulated among experts included such as 11 from department of medical surgical nursing, 2 from department of mental health nursing, 2 from department of obstetrics and gynecological nursing, 3 from department of community health nursing 1 from department of child health nursing, 1 from department of maternal and child health nursing and 1 from statistician. Their valuable suggestions were obtained and incorporated. The tool was modified according to expert's opinion. After considering the expert suggestion and modification the tool was finalized and translated in Punjabi language.

### Pilot study

A pilot study was conducted at Mittal Hospital and Heart Center Moga among 20 patients with COPD to find out the feasibility and practicability of the study. The findings suggested that the study was feasible and practicable.

### Reliability of the tool

Reliability of the tool was computed by split half method and was calculated by Karl Pearson's coefficient correlation and thereafter by applying spearman's Brown Prophecy formula. The reliability of tool was  $r = 0.8$  and statistical validity was 0.89 that show the tool was highly reliable.

## Data collection procedure

Data was collected in the month of March 2020 after obtaining formal permission from legal authority of Shyam Lal Thaper college of Moga. Permission was taken from concern authority of Aastha Hospital and Delhi heart institute & multispecialty hospital, Moga. The investigator gave self introduction to the patients and explained the purpose of gathering information they were assured that their response would be kept confidential and should be used for only research purpose. Data was collected from the patients that were selected by purposive sampling method of non probability sampling technique. Verbal consent was taken from patients. Questionnaires were distributed individually. At the end, information booklets were distributed to patients and queries of subjects were clarified.

## Ethical considerations

Approval was taken from research and ethical committee of Dr. Shyam Lal Thapar College of Nursing, Moga to conduct research study in selected hospital of Moga. Permission is taken from concerned authority of Aastha Hospital and Delhi Heart Institute & Multispecialty Hospital, Moga. The patients were explained about the purpose of the study and verbal consent was taken from the patients for participation in the study. The patients were assured that information given by them will be kept confidential and only used for research purpose.

## Major findings of the study were

- According to age in years, maximum number of 71 (35%) patients were belong to age group of 40-49 years and minimum number of 20(10%) patients were belong to age group of 60-69 years respectively.
- According to gender, maximum number of 136 (68%) patients were male and minimum number of 64 (32%) patients were female respectively.
- According to marital status, maximum number of 166 (83%) patients were married and minimum number of 4 (2%) patients were divorced.
- According to type of family, maximum number of 151 (75%) patients were belong to nuclear family and minimum number of 17 (9%) patients were belong to extended family respectively.
- According to the education of the patient, maximum number of 89 (44%) patients were primary educated and minimum number of 15 (8%) patients were graduates and above educated.
- According to occupation of the patients, maximum number of 69 (34%) patients were on private job and minimum number of 8(4%) patients were on government job employed.



- According to dietary pattern, maximum number of 98 (49%) patients were vegetarian and minimum number of 45 (23%) patients were eggetarian.
- According to area of residence, maximum number of 152 (76%) patients were belongs to urban area and minimum number of 48 (24%) patients were belongs to rural area.
- According to family monthly income, maximum number of 64 (32%) patients were having 10001-15,000 family monthly income and minimum number of 34 (17%) patients were having  $\leq 5,000$  family monthly income respectively.
- According to source of information, maximum number of 68 (34%) patients got information from health care professional and minimum number of 22 (11%) patients got information from family members.
- The maximum number of 149 (74%) patients had average knowledge score and minimum number of 9 (5%) patients had below average knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients.
- The maximum mean knowledge score of patients (20.52) who were belong to age group 30-39 years and the minimum mean knowledge score of patients (16.0) who were belong to age group 60-69 years respectively.
- The maximum mean knowledge score of patients (17.82) were male and the minimum mean knowledge score of patients (17.34) were female respectively. The mean knowledge score was found statistically non-significant level.
- The maximum mean knowledge score of patients (21.43) were unmarried and minimum mean knowledge score (16.48) were widow/ widower respectively.
- The maximum mean knowledge score of patients (17.97) were belong to joint family and the minimum mean knowledge score of patients (17.58) were belong to nuclear family respectively.
- The maximum mean knowledge score of patients (22.80) were graduate and above and the minimum mean knowledge score of patients (16.10) were primary educated respectively.
- The maximum mean knowledge score of patients (20.25) were in government job and the minimum mean knowledge score of patients (15.91) were home maker respectively.
- The maximum mean knowledge score of patients (17.73) were vegetarian and the minimum mean knowledge score (17.56) patients were non eggetarian respectively.

- The maximum mean knowledge score of patients (17.19) were belong to rural area and the minimum mean knowledge score patients (16.91) were belong to urban area respectively.
- The maximum mean knowledge score of patients (18.96) who had family monthly income  $\geq 15001$  and the minimum mean knowledge score of patients (16.35) who had family monthly income  $\leq 5000$  respectively.
- The maximum mean knowledge score of patients (18.06) got information from mass media and the minimum mean knowledge score of patients (16.00) got information from family members respectively.

## CONCLUSION

The maximum number of 149(74%) patients had average knowledge followed by 21% of the patients had good knowledge and minimum number of 9(5%) patients had below average knowledge respectively regarding risk factors and prevention of chronic obstructive pulmonary disease. In present study, age (in years), educational status and family monthly income had significant impact on knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients.

## IMPLICATIONS

### Nursing Education

There is need for extensive and intensive research in risk factors and prevention of chronic obstructive pulmonary disease among the patients. Nursing student should actively conduct research in this field so as to become aware with latest issues and thus able to identify the needs of the patient further studies are needed to avoid complication of chronic obstructive pulmonary disease on general health and strengthen the findings. Disseminated the findings of the study through conferences cum seminars and publishing in journal, public mass media promote the utilizations of research findings risk factors and prevention of chronic obstructive pulmonary disease.

### Nursing practice

The professional nurses must be aware about health the risk factors and prevention of chronic obstructive pulmonary disease. The nurse must be able to educate the patients regarding risk factors and prevention of chronic obstructive pulmonary disease and provide care to the patient with latest technology, advance knowledge or skills to improve the standards of nursing practice. Nurse must be guide the patient



with the use information booklet which can be more effective and easy to educate the patients regarding risk factors and prevention of chronic obstructive pulmonary disease.

### **Nursing administration**

Nursing administration at institution, local, state and national level should focus their attention to make the public conscious about causes risk factors treatment and lifestyle modification of chronic obstructive pulmonary disease with the help of mass media. Nurse administrator should initiate in organizing continue education, in-service education, workshop, seminars on risk factors and prevention of chronic obstructive pulmonary disease in hospital and community settings with modern technological video aids to gain adequate knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease and can reduce the incidence of chronic obstructive pulmonary disease among public.

### **Nursing Research**

There is need for extensive and intensive research in risk factors and prevention of chronic obstructive pulmonary disease among the patients. Nursing student should actively conduct research in this field so as to become aware with latest issues and thus able to identify the needs of the patient further studies are needed to avoid complication of chronic obstructive pulmonary disease on general health and strengthen the findings. Disseminated the findings of the study through conferences cum seminars and publishing in journal, public mass media promote the utilizations of research findings risk factors of heart attack and its prevention.

### **RECOMMENDATIONS**

- A Similar study can be conducted on large sample for wonder generalization.
- A comparative study can be conducted between urban and rural patients to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients.
- A quasi experimental study can be done to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease among patients.
- An exploratory study can be conducted to assess the knowledge regarding risk factors and prevention of chronic obstructive pulmonary disease.

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