

A STUDY TO ASSESS THE KNOWLEDGE AND OCCURRENCE OF RESPIRATORY PROBLEMS AMONG AUTO RICKSHAW DRIVERS IN SELECTED AREAS OF KOLLAM DISTRICT

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ABSTRACT

The present study was intended to assess the knowledge and occurrence of respiratory problems among auto rickshaw drivers in selected areas of Kollam district. The objectives of the study were assess the knowledge and occurrence regarding respiratory problems among auto rickshaw drivers in selected areas of Kollam district and find out the association between knowledge and demographic variables and the occurrence of respiratory problems and demographic variables among auto rickshaw drivers in selected areas of Kollam. A quantitative research approach and cross-sectional descriptive research design was adopted for the study. The data was collected from 130 auto rickshaw drivers who are selected conveniently. The investigator used a semi structured questionnaire to assess knowledge and respiratory problems. Descriptive and inferential statistics were used for data analysis. The results revealed that 20% of the autorickshaw drivers had poor knowledge, 78.1% had average knowledge, and only 1.9% had good knowledge regarding respiratory problems. With regard to occurrence 17.7% of the drivers reported respiratory problems. The study concluded that knowledge regarding respiratory problem has significant association with year of experience and occurrence of respiratory problem has significant association with smoking habits of auto rickshaw drivers.

KEYWORDS: Knowledge, Occurrence, Respiratory Problems, auto rickshaw Drivers, Occupational Health, Air Pollution.

INTRODUCTION

In recent years, the importance of occupational health and safety has gained increasing attention worldwide, particularly among workers who are exposed to environmental and occupational hazards.^[1] Among various occupational groups auto rickshaw drivers play a crucial role in the urban transport system. They contribute significantly to the mobility and daily functioning of society. However, due to the nature of their work, they are continuously exposed to traffic-related air pollution and environmental hazards, which may adversely affect their health, especially respiratory health.

According to the World Health Organization, air pollution is a major environmental risk factor responsible for various respiratory conditions such as asthma, chronic bronchitis, and chronic obstructive pulmonary disease(COPD).^[2] In developing countries like India, rapid urbanization, industrialization, and increasing vehicular traffic have resulted in poor air quality.^[3] Vehicular emissions release harmful pollutants such as particulate matter, carbon monoxide, nitrogen oxides, and sulfur dioxide, which can cause both acute and chronic respiratory problems.^[4]

Auto rickshaw drivers are exposed to these pollutants for prolonged hours every day. Continuous exposure to dust, smoke, and exhaust gases may lead to symptoms such as

chronic cough, wheezing, breathlessness, chest tightness, and decreased lung function.^[4] These conditions not only affect the physical health of auto rickshaw drivers but also reduce their productivity, income, and overall quality of life. In addition, respiratory illnesses may lead to frequent absenteeism, increased medical expenses, and economic burden for both the individual and family.

In addition to occupational exposure, adopting preventive measures can help reduce the risk of respiratory problems among auto rickshaw drivers. Simple protective practices such as wearing face masks, maintaining proper vehicle ventilation, and avoiding smoking can significantly decrease exposure to harmful pollutants.^[4] Regular medical checkups and early screening of lung function are also important for the early detection and management of respiratory diseases.^[2] Health education programs can improve programs awareness regarding the harmful effects of air pollution and encourage drivers to follow preventive practices.

STATEMENT OF THE PROBLEM

A study to assess the knowledge and occurrence of respiratory problems among auto rickshaw drivers in selected areas of Kollam district.

OBJECTIVES

1. Assess the knowledge regarding respiratory problems among auto rickshaw drivers in selected areas of Kollam district.
2. Assess the occurrence of respiratory problems among auto rickshaw drivers in selected areas of Kollam district.
3. Find out the association between knowledge and demographic variables of respiratory problems among auto rickshaw drivers in selected areas of Kollam district.
4. Find out the association between the occurrence of respiratory problems among auto rickshaw drivers and selected demographic variables.

HYPOTHESIS

H1: There is significant association between knowledge regarding respiratory problems among auto rickshaw drivers and selected demographic variables.

H2: There is significant association between the occurrence of respiratory problems among auto rickshaw drivers and selected demographic variables.

OPERATIONAL DEFINITION

1. Knowledge

In this study knowledge refers to the level of information and awareness of respiratory problems, its causes, symptoms, risk factors, preventive measures and management as measured by semi structured knowledge questionnaire.

2. Occurrence

Occurrence of respiratory problems refers to the presence of one or more self-reported or clinically identified respiratory symptoms or diseases among the study participants during the specified study period.

3. Respiratory problems

In this study respiratory problems are conditions or disorders that affect the lungs and airways, making it difficult to breathe normally.

4. Auto rickshaw drivers

In this study auto rickshaw drivers refers to people who have working experience more than 6 months.

ASSUMPTIONS

1. The auto rickshaw drivers may be aware of their respiratory problems and they can accurately report.
2. Respiratory problems may be very common among auto rickshaw drivers.

DELIMITATIONS

1. The study is limited to selected areas of Kollam district, Kerala, India.

The study is limited to a sample size of 130 auto rickshaw drivers.

RESEARCH APPROACH

The present study aims to assess the respiratory problems among auto rickshaw drivers and the research approach is quantitative.

RESEARCH DESIGN

Research design of a study spells out the basic strategies that researchers adopted to develop evidence that is accurate and interpretable. The research design incorporates sum of the most important methodological decisions that the research makes. In this study descriptive cross – sectional research design was used.

SETTING OF THE STUDY

Setting is the physical location and condition in which data collection takes place in a study. Chinnakada autostand was selected as study settings.

POPULATION

A population is the entire set of individuals or objects having some common characteristics selected for a research study. In this study population comprised of auto rickshaw drivers.

SAMPLE

Sample is a proportion or subset of the population. 130 auto rickshaw drivers in selected areas of Kollam was selected for the present study.

SAMPLE SIZE

For calculating the sample size, the equation sample size $(n) = 4pq/d^2$, was used with a reference study-Prevalence of chronic obstructive pulmonary disease among auto rickshaw drivers of East Delhi.

P value of prevalence of chronic obstructive pulmonary diseases was taken from the study is,

SAMPLING TECHNIQUE

Sampling technique is the process of selecting sample from the target population to represent the entire population.

In this present study sample were selected according to convenience sampling.

CRITERIA FOR SELECTION OF SAMPLE

INCLUSION CRITERIA:-auto rickshaw drivers

1. Who are willing to participate
2. Who are able to read and write Malayalam
3. Auto rickshaw drivers currently working in the selected areas
4. Minimum experience of 6 months or more

EXCLUSION CRITERIA

- Auto rickshaw drivers who have already participated in similar study within 1 year.

TOOLS AND TECHNIQUES

Tool or instrument is a device used by the researcher to collect data. "The research tool was derived on the basis of related literatures and under the guidance of subject experts.

TOOL 1

Semi structured questionnaire to collect data regarding socio Demographic variables.

TOOL 2

SECTION A: Semi structured questionnaire to assess the occurrence of respiratory problems.

SECTION B: Semi structured questionnaire to assess the knowledge regarding respiratory problems

DEVELOPMENT OF TOOL

The following steps were taken for the selection of items and preparation of tool:-

Review of research and research literature was made in the areas related to respiratory problems among auto rickshaw drivers.

- a) Formal discussion was held with the nursing and medical experts and their valuable suggestions were utilized for developing tool.
- b) Professional experience of the investigator helped in determining important areas to be included in the tool.

DESCRIPTION OF TOOL

TOOL 1

Semi structured questionnaire to assess the sociodemographic data include age, sex educational qualification, BMI, habit, year of experience, smoking habit, alcohol consumption.

TOOL 2

SECTION A: Semi structured Questionnaire to assess the occurrence of respiratory problems it consist of questionnaire regarding occurrence of respiratory problems among auto drivers.

SECTION B: Semi structured Questionnaire to assess the knowledge regarding respiratory problems Section B include the questionnaire to assess the knowledge regarding respiratory Problems and common preventive measures Total 15 questions included each right answers carries 1 mark.

Scoring interpretation

<7 – poor knowledge

7-11 – average knowledge

>11- good knowledge

Findings are presented under the following headings:

SECTION A

Distribution of autorickshaw drivers based on demographic variables.

SECTION B

Distribution of occurrence of respiratory problems among autorickshaw drivers.

SECTION C

Distribution of autorickshaw drivers based on knowledge regarding respiratory problems and their prevention among autorickshaw drivers.

SECTION D

Association between demographic variables and knowledge among autorickshaw drivers.

SECTION E

Association between occurrence of respiratory problem and demographic variables.

SECTION A: Distribution of autorickshaw drivers based on demographic variables.

Among 130 participants 8% of autorickshaw drivers are between the age group of <25, 14.6% are between the age group of 25-40, 41.5% are between age group of 40-50, 43.1% are between the age group of 50-60 in the present study all the autorickshaw drivers are male Based on BMI 5.4% of autorickshaw drivers comes under underweight 53.8% belongs to normal BMI 26.9% belongs to over weight category 13.8% belongs to obese category.

On the basis of education 26.2 % of people having primary educational qualification, 53.8% having secondary educational qualification, 16.9% having higher secondary educational qualification and 3.1% having degree level educational qualification.

Out of 130 participants majority of participants have more than 10 year of experience and only 6.2%

autorickshaw drivers having experience of less than one year.

Based on smoking habit 47% of autorickshaw drivers are smokers and 83% of autorickshaw drivers are non smokers on the basis of duration of smoking habit 85 % autorickshaw drivers having duration of smoking habit less than one year, 17% having 2-4 years Duration, 21.3 %having 5-9 years duration, 53.2% having greater than 10 years of experience.

Based on the habit of alcoholism 44.2% of autorickshaw drivers have habit of alcoholism 55.8% have no habit of alcoholism.

On the basis of duration of alcoholism 10.2% autorickshaw drivers have duration of Alcoholism less than 1.

Among 130 participants 80.8% of autorickshaw drivers are not using mask while driving 1.5% are always using mask 13.8% are using sometimes 3.8% use when dust is more.

Based on the age of Starting job 71.5% autorickshaw drivers are started their job at the age less than 25 years 18.5% are started at age of 21-40 9.2 % are started at the age of 35- 50, 0.8% are started at the age of 50-60.

On the basis distribution of autorickshaw drivers based on their distance of travelling 0.8% of autorickshaw drivers are travelling at a distance of 20 km 2.3% are travelling at a distance of 21-40km 5.4% are travelling at a distance of 41-59, 91.5 % are travelling at a distance of more than 60km.

On the basis distribution of autorickshaw drivers based disease prevalence 60.8% of autorickshaw drivers have no other diseases 19.2% have hypertension 18.5% have diabetes 1.5% having asthma.

SECTION B: Distribution of occurrence of respiratory problems among autorickshaw drivers.

Based on distribution of occurrence of respiratory problems 17.7 % of participants reported respiratory problems among 13% reported asthma 13% reported pneumonia and 73.9% reported breathing difficulty and 78.3% have monthly cough with sputum 42.9% have their sputum 56.3% have under gone respiratory investigation 64.3% are taken x-ray 69.6% have breathlessness during heavy work 39.1% have 2 days frequency of morning sputum, 52.2% have sleeplessness and 52.2% have loss of working days due to respiratory problem

SECTION C: Distribution of autorickshaw drivers based on knowledge regarding respiratory problems and their prevention among autorickshaw drivers 130 participants 23.1% autorickshaw drivers have poor knowledge 75.4% have average knowledge 1.5% have good knowledge.

SECTION D: Association between demographic variables and knowledge among autorickshaw drivers.

Based on association between demographic variables and knowledge obtained chi-square value of year of experience is significant at P value <0.05 level of significance hence there is an association between year of experience and knowledge (**.022) significant at 0.01ems.

SECTION E: Association between occurrence of respiratory problems and demographic variables.

In the present study the obtained chi-square value of smoking habit is significant at P value <0.05 level of significance. Hence there is an association between smoking Habit and occurrence (**.018) significant at 0.01. The obtained chi-square value For age, BMI, Education, Experience of work, duration of smoking, alcohol Consumption, use of mask, started age of job, chronic illness is not significant at P Value, 0.05 level of significance. Hence there is no association between demographic Variables and occurrence.

CONCLUSION

Present study was conducted to assess the knowledge and occurrence of respiratory problems among autorickshaw drivers in selected areas of Kollam. The findings revealed that a considerable proportion of drivers had inadequate to moderate knowledge regarding respiratory problems and their preventive measures. At the same time, a significant number of participants reported respiratory symptoms such as cough, breathlessness, and wheezing, indicating a notable occurrence of respiratory problems. The study also identified a significant association between knowledge and selected demographic variables, suggesting that factors such as age, education, and work experience. Overall, the study highlights that autorickshaw drivers have respiratory problems due to continuous exposure to air pollution.

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