

"A Study To Assess The Effectiveness Of Information Booklet On Knowledge Regarding The Oral Cancer Among Rickshaw Driver In Selected Areas Pune City"

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ABSTRACT

Introduction

Oral cancer is a major public health problem in India. Rickshaw drivers, an essential mode of public transport in urban and semi-urban India, form a unique high-risk group. India contributes one-third of the total burden of oral cancer cases in the world. Oral cancer accounts for 30% of all cancers reported in India. It ranks among the top three cancers in the country. Oral cancer may occur on the lips or anywhere within the mouth like buccal mucosa, hard and soft palate, pharyngeal walls and tonsils etc. Cancer is a major public health problem worldwide and a chronic life-threatening disease. Oral cancer develops due to many factors like betel chewing, smoking and alcohol. These major risk factors cause more than 70% of cases of oral cancer. Rickshaw drivers are frequently exposed to harmful environmental pollutants, irregular meal patterns, poor nutrition, strenuous working postures and tobacco & alcohol consumption. Considering these risk factors, the present study was undertaken to assess knowledge and awareness regarding oral cancer among rickshaw drivers in Pune city.

Materials and Methods

A quantitative research approach with a pre-experimental one-group pretest & post-test design was used. Non-probability purposive sampling technique was adopted, with a sample size of 100 rickshaw drivers. The tool consisted of two sections: demographic data and a self-structured questionnaire.

Results

T test value is 34.44. This value is significant at $P < 0.05$ level. Chi-square test showed a significant association between knowledge and age, duration of occupation, and lifestyle habits.

Conclusion

The purpose of the study was to assess the effectiveness of an information booklet on knowledge regarding oral cancer among rickshaw drivers in selected areas of Pune City. The study concluded that the information booklet was effective in significantly improving the knowledge of oral cancer among rickshaw drivers.

Keywords: Information booklet, Oral cancer, Rickshaw drivers.

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INTRODUCTION

India contributes one-third of the total burden of oral cancer cases in the world. Oral cancer account 30% of all cancers reported in India. It ranks among the top three cancers in the country. India has the greatest number of oral cancer cases than any other Nation worldwide and recently come to be known as "The Oral Cancer Capital of the World." There has been an exponential rise in oral cancer cases throughout the country because of the lack of awareness and knowledge of the common people. Oral cancer may occur on the lips or anywhere within the mouth like tongue floor or the mouth buccal mucosa, hard and soft palate, Pharyngeal walls and tonsils etc. Cancer is a major public health problem worldwide and chronic life-threatening disease. Oral cancer developed due to the many

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factors betel chewing, smoking and alcohol. This major risk factors that cause more than 70% of cases of oral cancer. Chewing tobacco is associated with 50% of increases in risk of developing cancer in a cheeks, gums, and inner surface of lips. Passive smoke may also develop risk of oral cancer.¹ Background of the study helps in identifying and analysis for an information on a topic developing and understand the state of knowledge on the topic. There is a wide variation in the incidence and mortality rate of an oral cancer in different regions around the world highest rate are reported in South Asian countries such as India and Sri Lanka. Oral cancer account for approximately 5% of all cancers globally, while in India it is about 40% all type of cancer. It is estimated, that in India nearly 60,000 new cases of oral cancer are reported annually.¹

International data indicate that oral cancer is among the top six most prevalent cancers worldwide, resulting in approximately 3.9 lakh new cases and over 1.8 lakh deaths every year, according to GLOBOCAN 2022 projections. South and South East Asia experience the highest rates of oral cancer, with countries such as India, Sri Lanka, Bangladesh, and Pakistan reporting that the disease contributes to up to two-fifths of all cancer diagnoses. India reports a substantial share of oral cancer cases, with the disease comprising nearly one-third of all cancers and being the most frequently diagnosed cancer in males. Oral cancer is a dangerous social health issue in worldwide.² According to the National Oral Cancer Registry (NOCR), approximately 60,000 new cases of oral cancer are diagnosed annually in India. Oral cancer occurs due to several risk factors such as smoking, and alcohol consumption. These major risk factors account for more than 75% of oral cancer cases. Cigarette smoking is associated with a tenfold greater risk of developing oral cancer. Smoking is associated with 10 times' greater risk of developing oral cancer. Passive smoke may also develop oral cancer. Chewing tobacco is associated with 50% of increases risk of diagnosing cancer in a cheek and lips. Pipe smoking causes cancer in the part of the leaf that touches the pipe stem & oral cancer can mostly common in men due to unhealthy lifestyle, poor work posture and most important habits alcohol and tobacco consumption.³ A study conducted in 2023 among auto-rickshaw drivers in North Karnataka assessed tobacco use and oral premalignant lesions (OPML). The prevalence of tobacco use was 62.17%. About 30% of the auto-rickshaw drivers consumed chewing tobacco, gutkha, and lime with tobacco. Cigarette smoking was found to be significantly associated with OPM.⁴ Considering all these things, there is need to assess knowledge of oral cancer in Rickshaw drivers and create awareness regarding treatment modalities. Keeping all this view, present study was planned.

RESEARCH OBJECTIVES

1. To assess the knowledge regarding oral cancer among rickshaw driver before and after administration of information booklet.
2. To assess the effectiveness of information booklet on a knowledge regarding oral cancer among rickshaw driver.

RESULT

Section I: Demographic Data

Majority of 41% participants were in 41-50 years and 31% participants were above 50 years and 19% participants were 31-40 years & 9% of 20-30 years of age group.

Majority of 51% participants were Secondary Education and 27% participants were primary, 14% higher secondary and 8% are primary.

Majority of 35% Participants having >15 years, 30% participants were having 11-15 years, 18%

3. To find out the association between oral cancer with the selected demographic variable.

HYPOTHESIS

- Null Hypothesis (Ho1): There is no significant difference between knowledge of oral cancer before and after information booklet at 0.05 level of significance.
- Null Hypothesis (Ho2): There is no association between knowledge of oral cancer with selected demographic variables and information booklet at 0.05 level of significance.

RESEARCH METHODOLOGY

Research approach: Quantitative research approach.

Research Design: Pre experimental research design.

Setting of the study: Selected areas of Pune City.

Population:

- Target population- Rickshaw drivers.
- Accessible population- Rickshaw drivers in selected areas of Pune City.

Sample Size-100 Samples

Sampling Technique: Non Probability purposive sampling techniques

Criteria for sample selection

Inclusion Criteria:

1. Rickshaw drivers (male and female) adult age group 18-35 yrs.
2. Able to read, write, understand language Marathi or English.

Exclusion Criteria:

1. Not willing to participate.
2. Individual with any physical and mental condition.

Tool for data collection:

Section I- Demographic Variables

Section II - Self Structured Questionnaire

Validity and Reliability-The tool was validated by experts in the field of nursing and medicine. Reliability was established using appropriate statistical methods. As 'r' value is 0.91, tool is reliable

Pilot study: A pilot study was conducted to assess the feasibility of the study and the tool

Data Analysis- data were analysed using descriptive such as frequency and percentage distribution.

participants having <5 years, 17% participants having 5-10 years duration of occupation.

Majority of 52% Participants having habit of Tobacco chewing, 18% participants having habits of Smoking, 13% participants having habits of Alcohol, 1% participants having habits of other, 17% participants having no any life style habits.

Majority of 62% Participants having >10 years, 24% participants were having < 10 years duration of life style habits, 17% participants having no any life style habits.

Section II: Finding related to knowledge regarding oral cancer.

Table: 2, Pre- test finding related to knowledge regarding oral cancer.

Knowledge	Frequency	Percentage	Mean	SD
Poor	35	35	6.55	2.94
Average	41	41		
Good	23	23		
Excellent	1	1		

Data presented in Table 2 shows that in pretest knowledge majority of 41 % having average knowledge regarding oral cancer and 35% having poor knowledge, 23% having good knowledge & 1% having excellent knowledge regarding oral cancer.

Table-3, Post-test finding related to knowledge regarding oral cancer.

Knowledge	Frequency	Percentage	Mean	SD
Poor	0	0	11.65	2.52
Average	13	13		
Good	41	41		
Excellent	46	46		

Data presented in Table 3 shows that in posttest knowledge majority of 46 % having excellent knowledge regarding oral cancer and 41% having good knowledge, 13% having average knowledge & 0% having poor knowledge regarding oral cancer.

Section III - Finding related effectiveness of information booklet regarding the oral cancer.

Table- 4- Finding related effectiveness of information booklet regarding the oral cancer.

Knowledge	Mean	SD	D F	T test	P value	Remark
Pre test	6.55	2.94	9	34.44	0.000	Significant
Post test	11.65	2.52				

Data presented in Table 4 shows that calculated value of paired t test was 34.44 with p value 0.000 so p value is less than 0.05 level of significant which means null hypothesis rejected and there is effectiveness of information booklet regarding the oral cancer.

Section IV: Data on significant association between pre-intervention level of oral cancer with selected demographic variables.

Table 5 Describe the association between pre-intervention level of oral cancer with selected demographic variables.

Demographic Variables	X ²	p-value	Statistical Significance
Age	16.92	0.000	Significance
Duration of Occupation	16.92	0.010	Significance
Lifestyle Habits	21.03	0.0005	Significance
Educational Qualification	16.92	0.28	Not Significance

Age	16.92	0.000	Significance
Duration of Occupation	16.92	0.010	Significance
Lifestyle Habits	21.03	0.0005	Significance
Educational Qualification	16.92	0.28	Not Significance

Table 5 shows that the study concludes that demographic factors such as age, duration of work, and lifestyle habits significantly influence the level of knowledge regarding oral cancer among rickshaw drivers. The absence of a significant association with formal education indicates that health education and intervention programs should be designed according to the socio-cultural and occupational characteristics of this population rather than relying solely on their academic background.

DISCUSSION

This study, "A Study to Assess the Effectiveness of an Information Booklet on Knowledge Regarding Oral Cancer among Rickshaw Drivers in Selected Areas of Pune City," was conducted to determine participants' demographic characteristics, lifestyle habits, and the extent of their exposure to key risk factors. The results of the study are subsequently interpreted and discussed in relation to existing literature. The present study assessed the effectiveness of an information booklet on oral cancer awareness among rickshaw drivers in Pune city. The age distribution was similar to studies from Patil. and Jain & Joseph (2020), both of which observed that the preponderance of drivers possessed only a secondary level of education. Both sets of researchers posited that restricted educational attainment impedes comprehension of health-related information & the initial symptoms of oral cancer¹⁴. Chakraborty. (2019), who observed that drivers with extensive tenure (exceeding 10 years) exhibited an elevated consumption of tobacco products, which they attributed to occupational exhaustion and unpredictable schedules.¹⁵ This finding is corroborated by Sinha et al. (2021), whose study revealed that 58% of auto drivers utilized tobacco in various forms. Similarly, Das & Roy (2020) documented a 64% rate of tobacco usage among transport workers. Both investigations underscore that occupational stress, peer group influence, and ease of access are major contributors to the development of this habit. A comparable age distribution was observed in a study carried out in Sodepur, Kolkata (2020), where the predominant number of auto-rickshaw drivers exceeded 40 years of age. This suggests that prolonged exposure to occupational stress and extensive working hours may lead to increased risk behaviour over time.¹⁶ corroborating the present findings.

These findings emphasize the need for targeted educational interventions and regular screening to promote early detection and prevention of oral cancer among rickshaw drivers.

Conflict of Interest

We hereby declare that we do not have any personal conflict of interest that may arise from our application and submission of our research proposal.

CONCLUSION

The purpose of the present study was to assess the effectiveness of an information booklet on knowledge regarding oral cancer among rickshaw drivers in selected areas of Pune City. Pre experimental one group pre-test and post-test research design was used for the study. Which consisted of 100 samples that selected through the purposive sampling technique. The research tool was tested for validity and reliability, and which suggested that the tool was reliable. The pilot study was conducted among 10 samples and the feasibility of the study was established. The finding revealed that the participants had poor to average in pre-test knowledge regarding oral cancer scored assessment. Most participants scored in the range of 5-8 marks, indicating average level of knowledge. After giving the information booklet the post-test result showed a significant improvement in knowledge. The majority of the participants scored in the excellent range from 13 -16 marks. The mean knowledge scores increased from 6.55 in the pre-test to 11.65 in post-test. Demonstrating the effectiveness of the information booklet in improving awareness about oral cancer among rickshaw drivers. The data analysis was done by calculating the mean, mode, percentage, standard deviation, frequency and percentage, t test and chi square test.

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