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Research Article

A Descriptive Study to Assess the Knowledge Regarding Effects of Smoking and Prevention among Adults Residing in Selected Urban Area at Kolhapur

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ABSTRACT

Background and Objectives: Smoking is a leading cause of preventable diseases and premature death globally, with the World Health Organization (WHO) reporting over 8 million deaths annually, including 7 million from direct tobacco use and 1.2 million from second-hand smoke exposure. In India, approximately 28% of adults use tobacco, contributing to a significant health burden. This study assesses the knowledge regarding the effects of smoking and prevention strategies among adults in a selected urban area of Kolhapur. Objectives: 1) Assess the level of knowledge regarding the harmful effects of smoking among adults; 2) Identify the association of knowledge scores with selected socio-demographic variables.

Methods: A quantitative descriptive survey approach with a non-experimental descriptive research design was employed. Non-probability purposive sampling selected 385 adults aged 18-45 from Kasba Bawada, Kolhapur. Data were collected using a structured questionnaire with demographic variables and 30 knowledge items. Ethical clearance, permissions, and informed consent were obtained. Data analysis included descriptive statistics (frequencies, percentages, mean, standard deviation) and inferential statistics (chi-square tests).

Results: Preliminary findings indicate a majority of participants had good knowledge (87.79%), with 8.31% poor and 3.90% average. Significant associations were observed with age, gender, education, and smoking status ($p<0.05$), while no associations were found with religion, occupation, income, or family smoking history.

Interpretation and Conclusion: Adults in the selected urban area of Kolhapur demonstrate a generally good level of knowledge about smoking effects and prevention, though gaps exist in the poor and average knowledge groups. These findings underscore the need for targeted educational interventions to enhance awareness and support public health strategies.

Keywords: Smoking, Knowledge, Prevention, Adults, Urban Area, Kolhapur, Health Hazards.

INTRODUCTION

Smoking is one of the leading causes of preventable diseases and premature death globally. According to the World Health Organization (WHO), tobacco use kills more than 8 million people each year, with more than 7 million of these deaths attributed to direct tobacco use and approximately 1.2 million due to non-smokers being exposed to second-hand smoke. Smoking is linked to a variety of health issues, including lung cancer, heart disease, stroke, respiratory diseases, and even diabetes. In India, the tobacco consumption rate is alarmingly high, with approximately 28% of adults using tobacco in some form, which contributes to a significant health burden in the country. Despite the known health risks, many adults continue to smoke due to various factors such as social influences, addiction, and lack of awareness.

There is a growing body of research highlighting the importance of knowledge about the harmful effects of smoking in reducing tobacco consumption. Awareness campaigns have been implemented worldwide, but many regions, particularly in developing countries, still face challenges in effectively communicating the dangers of smoking and

the availability of prevention strategies. Understanding how much adults in urban areas are aware of the effects of smoking and preventive measures is crucial in tailoring public health strategies.

In India, urban areas such as Kolhapur have witnessed an increase in smoking prevalence, partly due to urbanization and the associated lifestyle changes. However, there remains a lack of sufficient data on the level of knowledge among the urban adult population regarding the effects of smoking and its prevention. This study aims to assess the knowledge of adults in Kolhapur about the harmful effects of smoking and the existing prevention strategies.

Smoking is a major public health concern in Kolhapur, affecting individuals and the environment in various ways. The habit is prevalent among different age groups, leading to severe health risks, economic burdens, and environmental degradation.

Smoking is a leading cause of respiratory diseases, lung cancer, and cardiovascular disorders in Kolhapur. Many smokers suffer from chronic obstructive pulmonary disease (COPD) and other lung-related ailments. Second-hand smoke also endangers non-smokers, increasing their risk of diseases.

Cigarette waste, including filters and packaging, contributes to pollution in Kolhapur's streets and public places. The toxins from cigarette butts contaminate soil and water, harming local ecosystems.

Healthcare costs related to smoking-related illnesses burden both individuals and the government. Smoking also affects productivity at workplaces and leads to social issues such as addiction and passive smoking in families.

Smoking cigarettes sets into motion a chain reaction of changes that set the stage for infection, degenerative diseases, cardiovascular disease, and cancer. Smoke contains thousands of chemicals, but it is nicotine that causes the powerful addiction that compels a person to continually deliver the other harmful chemicals to the respiratory system. Nicotine binds to receptors on certain nerve cells in the brain, causing the cells to release dopamine, which produces the associated pleasurable sensations. Addiction happens when a person seeks the good feelings and wants to avoid withdrawal symptoms.

Need for the Study

Tobacco consumption in urban India has seen an upward trend despite efforts to reduce smoking through public health campaigns and government regulations. The urban population is often exposed to various environmental and socio-cultural factors that influence smoking behavior, making it critical to assess their awareness regarding the health impacts and prevention of smoking. Knowledge regarding smoking-related risks and preventive actions is a crucial determinant in adopting healthier behaviors. However, evidence from specific urban areas, such as Kolhapur, is sparse, and this knowledge gap impedes the development of targeted health education strategies.

Assessing the knowledge and awareness of adults residing in Kolhapur is particularly important because this city represents a blend of urbanization, traditional lifestyles, and evolving socio-economic conditions, all of which influence smoking behavior. By conducting a descriptive study, it becomes possible to identify the current level of awareness, recognize the gaps in knowledge, and explore the factors influencing smoking habits in this specific population. This study also emphasizes the need for health interventions and smoking prevention programs that are tailored to the unique characteristics of the urban population in Kolhapur.

The results of this study can guide policymakers and health authorities in designing targeted educational and intervention programs. Such programs can be more effective in reducing smoking prevalence and its related health consequences by addressing specific knowledge gaps and barriers to smoking cessation. Furthermore, understanding the perceptions and misconceptions about smoking and its prevention can aid in crafting more compelling public health messages and smoking cessation initiatives.

A study on the knowledge regarding the effects of smoking and prevention methods among adults is crucial in nursing research as it can identify gaps in awareness about the serious health risks associated with smoking, allowing healthcare professionals to tailor effective interventions and promote smoking cessation strategies to better educate and support adult patients towards quitting.

METHODS

A quantitative descriptive survey approach with a non-experimental descriptive research

design was employed. The study was conducted in Kasba Bawada, a selected urban area of Kolhapur, Maharashtra. Non-probability purposive sampling was used to select 385 adults aged 18-45 years. Data were collected using a structured questionnaire comprising demographic variables and 30 knowledge items related to the effects of smoking and prevention strategies. Ethical clearance was obtained from the Institutional Ethics Committee of D.Y. Patil College of Nursing, Kolhapur, and informed consent was secured from all participants. Data were analyzed using descriptive statistics (frequencies, percentages, mean, standard deviation) and inferential statistics (chi-square tests) to assess knowledge levels and their association with socio-demographic variables.

RESULTS

Preliminary analysis of 385 participants showed that 48.5% were aged 26-35 years, 82.59% were male, 71.42% were Hindu, 36.1% had higher secondary education, 38.44% were privately employed, 44.15% had a monthly income >50,000 INR, 80.51% were non-smokers, and 78.70% reported no family history of smoking. Knowledge levels were categorized as good (87.79%), poor (8.31%), and average (3.90%). Significant associations were found between knowledge scores and age, gender, education, and smoking status ($p<0.05$), while no significant associations were observed with religion, occupation, income, or family smoking history.

Part I: Description of Demographic Variables of Adults.

This part deals with distribution of participants according to their demographic characteristics. Data was analyzed using descriptive statistics and summarized in terms of percentage.

Table 1: Frequency and Percentage Distribution of Sample According to Demographic Characteristic.

	Variable	frequency	Percentage
1	**Age**		
	18to25	86	22.33
	26to35	187	48.5
	36to45	112	29.09
2	**Gender**		
	Male	318	82.59
	Female	67	17.40
3	**Religion**		
	Hindu	275	71.42
	Muslim	40	10.38
	Christian	61	15.84
	Other	9	2.33
4	**Education**		
	Illiterate	12	3.11
	Primary education	7	1.81
	Secondaryeducation	27	7.01
	Highersecondaryeducation	139	36.10
	Graduate	83	21.55
	Postgraduate	96	24.9
	Professional Degree	17	4.41
5	**Occupation**		
	Student	21	4.93
	Unemployed	28	7.27
	Self-employed	79	20.51
	Privateemployed	148	38.44
	Governmentemployed	111	28.83
6	**Monthly Income**		
	<10,000	19	4.93
	10,000to30,000	86	22.37
	30,000to50,000	110	28.57
	>50,000	170	44.15

7	**Smoke**		
	Yes	75	19.48
	No	310	80.51
8	**History**		
	Yes	82	21.29
	No	303	78.70

Data presented in Table 1 shows that the majority respondents (48.5%) belonged to the age group of 26-35years, while22.33%werelessthan18years, 29.09% of respondents were above 45 years. Regarding gender, 82.59% of respondents were Male, and 17.40% were Female. In terms of religion, the majority (71.42%) were Hindu, followed by10.38% who were Muslim, 2.33% who identified with other religions, and 15.84% who were Christian.

The majority of respondents (44.5%) were > 50,000, followed by 28.57% in 30,000, and 22.37% in 10,000, followed by 4.93% in <10,000. In terms of smoking, majority respondednoby80.51%,followed by yes (19.48%).In terms of history majority (78.70%) were no, follow.

Findings of the study revealed that knowledge score of residents (87.79%) regarding smoking was found to be good and (8.31%) of poor and (3.90%) residents having average knowledge

DISCUSSION

1. Demographic Characteristics

Demographic characteristics reveals the majority of respondents (48.5%) belonged to the age group of 26-35 years, while 22.33% were less than18-25years,29.09%ofrespondentswereabove36-45years.Regarding gender,82.59%ofrespondentswereMale,and17.40%wereFemale.Interms of religion, the majority(71.42%)wereHindu,followedby10.38%whowere Muslim, 2.33% who identified with other religions, and 15.84% who were Christian.

The majority of respondents (36.10%) in higher secondary education, followed by (21.55%) in graduate, followed by (7.01%) in secondary education, followed by (3.11%) illiterate (1.81%) in primary education.

The majority of respondents (38.44%) in primary employees, (28.38%) ingovernmentemployee,(20.51%)inself-employee,(7.27%)inunemployed, (4.93%) in students

The majority of respondents (44.5%) were > 50,000, followed by 28.57% in 30,000, and 22.37% in 10,000, followed by 4.93% in <10,000. In terms of smoking, majority responded no by 80.51%, followed by yes (19.48%). In terms of history majority(78.70%) were no, followed by(21.29%) were yes.

2. Assessment of Knowledge Related to Smoking Among Residents

Findings of the study revealed that knowledge score of residents (87.79%) regarding smoking was found to be good and (8.31%) of poor and (3.90%) residents having average knowledge

Similar finding was reported bythe studyto assess the knowledge regarding health hazards of smoking among adults residing in selected urban area Kasaba – Bawada, Kolhapur, Maharashtra.

The result reveals that knowledge on smoking among residents was found (87.79%) good and (8.31%) poor, and (3.90%) average knowledge.

The high prevalence of good knowledge (87.79%) among adults in Kolhapur suggests effective dissemination of smoking-related information, possibly through public health campaigns. The significant associations with age, gender, education, and smoking status indicate that targeted education may be needed for younger females, less educated individuals, and current smokers. The lack of association with income and family history highlights the broad applicability of awareness efforts across socio-economic groups.

Implications of the Study

Nursing Practice

1. Integrate smoking education into routine patient care to reinforce prevention strategies.

Nursing Education

1. Incorporate training on smoking cessation techniques in nursing curricula.

Nursing Administration

1. Allocate resources for community-based smoking awareness programs.

Nursing Research

1. Conduct longitudinal studies to evaluate the long-term impact of knowledge on smoking behavior.

General Education

1. Promote school-based awareness campaigns to prevent smoking initiation.

Limitations

The study was limited by its single-center design and reliance on self-reported data, which may introduce bias. The sample size, though adequate, may not fully represent all urban areas of Kolhapur.

Recommendations

Conduct multi-center studies with larger and more diverse samples. Explore qualitative methods to understand barriers to knowledge application. Implement randomized controlled trials to assess intervention effectiveness.

CONCLUSION

The study reveals a generally good level of knowledge regarding the effects of smoking and prevention strategies among adults in Kolhapur, with significant variations based on demographic factors. Targeted interventions are recommended to address gaps and enhance public health outcomes.

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