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A Study on the Effects of Smoking Among Public Smokers of Tamil Nadu

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ABSTRACT

Tobacco usage is one of the biggest problems of the public health and environment in the World. Tobacco use constitutes a global epidemic that results in five million deaths each year. Cigarette contains a mix of over 7,000 chemicals. Nicotine is a highly addictive chemical present in the tobacco plant. According to the World Health Organization (WHO), India is home to 12% of the world's smokers. The Smoking habits of tobacco have become a usual thing to all groups of people in India as well as all Countries. The smoking is not only hazards to smokers, but also to the common people and it leads to some diseases like Cancer, constricted blood vessels, Smelly Hair, Yellow Fingers, Unhealth teeth, Heart disease, Immune System, Blood Clotting, Poor Vision, Dull sense of smell and taste. Non-Smokers health also get affected by smokers and there is a possibility of getting the following ailments like Lung cancer, Breathing problems, Heart disease like heart attack, Stroke, Die early, Cardiovascular diseases, Hair Loss, Wheezing, Infant death, Blindness. Some natural disasters like Global Warming, Deforestation, Toxic Waste, Air Pollution, Water Pollution, Effects on Livestock, Biodiversity loss, Fertility of the soil and the Health impacts on home and wild animals affect the environment due to these smokers. Against this background, this study is focused on the effects of smoking among public smokers of Tamil Nadu.

Keywords: Smoking, Tobacco and the Effects.

INTRODUCTION

Tobacco usage is one of the biggest problems of the public health and environment in the World, killing more than 7 million people a year [1]. Tobacco use constitutes a global epidemic that results in five million deaths each year. If current trends in tobacco use continue, the number of tobacco-related deaths is expected to rise to eight million deaths annually by 2030-with 80 percent of these deaths ocurring in low- and middle-income countries [2]. Cigarette smoke contains a mix of over 7,000 chemicals, including nicotine. Nicotine is a highly addictive chemical present in the tobacco plant [3]. Few very dangerous chemicals are in the tobacco like Acetone, Acetic acid, Ammonia, Arsenic, Benzene, Butane, Cadmium, Carbon monoxide, Formaldehyde, Hexamine, Lead, Naphthalene, Methanol, Nicotine, Tar and Toluene [4]. According to recent Centers for Disease Control and Prevention (CDC) study, 24.3% of Americans are current smokers. Further, findings indicate the populations most affected by tobacco use are vulnerable minority populations [5]. There are approximately 120 million smokers in India. According to the World Health Organization (WHO), India

is home to 12% of the world's smokers. More than 10 million die each year due to tobacco in India. According to a 2002 WHO estimate, 25% of adult males in India smoke. Among adult females, the figure is much lower at between 13–15%. About 90% of children under the age of 16 years (10th standard) have used some form of tobacco in the past and 70% are still using tobacco products [6]. Dr. Anbumanni Ramadoss, Former Minister of Health and Family Welfare said 40 per cent of deaths occur in India due to tobacco related diseases while two-third of deaths occur due to smoking, junk foods and usage of drugs [7]. Many people believe electronic are a safe alternative to traditional cigarettes. It is not true because the recent report from the U.S. surgeon general calling e-cigarette use "a major public health concern," this may not be the case. The FDA reports an alarming 900% rise in e-cigarette use among high school students from 2011 to 2015. Get the facts on this popular, and potentially dangerous, product [8]. 17.5% of the smokers are using the e-cigarette in India [9].

A survey conducted by the International Institute of Population Science and the Ministry of Health and Family Welfare, reveals that 56.6% of the peoples in Kolkata, the highest rate in India. 82% of the men and 23.5% of the women smoke in Kolkata. The highest number of beedi smokers is in Uttarakhand [10]. Tobacco use among males was higher (4.3%) compared to females (0.9%), a small difference in tobacco use between urban (2.5%) and rural areas (2.6%) of Tamil Nadu. 47% of current tobacco users consumed tobacco within half an hour of waking up and Pudukottai district is most tobacco users than that of other districts of Tamil Nadu [11].

STATEMENT OF THE PROBLEM

The Smoking habits of tobacco have become a usual thing to all groups of people in India as well as all Countries. Particularly, cigarette is a usual thing to young agers. We can see the smokers on the street, tea shop, bus stand, market, in some schools and colleges. Some Hollywood and Bollywood actors smoke in films, the followers and audience are followed them as a role model and consume it. Most young smokers depend on their heroes. The smoking is not only hazards to smokers, it is also effects to other health like public peoples that possible to Causing Cancer, constricted blood vessels, Smelly Hair, Yellow Fingers, Unhealth teeth, Heart disease, Immune System, Blood Clotting, Poor Vision, Dull sense of smell and taste and Non-Smokers health also affects by smokers that the following ailment Lung cancer, Breathing problems, Heart disease like heart attack, Stroke, Die early, Cardiovascular diseases, Hair Loss, Wheezing, Infant death, Blindness and the environment is severely affected by smokers like Global Warming, Deforestation, Toxic Waste, Air Pollution, Water Pollution, Soil and Land Pollution, Effects on Livestock, Biodiversity loss, Fertility of the soil and the Health Impacts on home and wild animals. Particularly, there are so many drawbacks in this studies that low response rate from public smokers and technical snags in Google form. We are waiting four month for receiving more data but do not have. In this backdrop, the present study has been attempted to create awareness towards effects of smoking among public smokers of Tamil Nadu.

Review of literature

A large number of research studies have been conducted on effects of smoking in India and the abroad. The available literature on the selected topic reveals that the research studies of cotton cultivation back to early forties up to the present period. An attempt is made here to review some of the selected works in this direction.

Abu S. Abdullah et al. (2011) they identified that thirty-eight percent (38%) of the respondents were very or extremely concerned about the TSP risk to children's health and 43.5% of respondents had a complete ban on smoking at home. a smaller percentage of smokers supported complete smoking bans in workplaces. A somewhat smaller percentage of smokers than non-smokers were aware that TSP causes lung cancer.

Kalaivani Annadurai and Geetha Mani et al. (2014) made a study to examine the prevalence and pattern of tobacco use among men aged 18 years and above in rural area of Tamil Nadu. For this study, primary data have been used. The required primary data have been collected from 714 males aged 18 years and above in Vadagarai village of Tamil Nadu by using Systematic random sampling. Collected data have been analysed with chi-square test. It is found that the majority of them were using cigarettes (64.5%).

Pavani Varma and Prasadn (2018) made a study to examine knowledge and attitude among two high school children of rural and urban areas in the field practice area of Mediciti Institute of Medical Sciences. They find that 98.85% in urban areas and 94.84% in rural area students are well regarding harmful effects of tobacco consumption.

Praveena Raman and Raghuram Pitty (2020) this study was conducted using a two-stage sampling design, with a sample size of 300. It is found that 33.2% of respondents could not change after noticing the warning and the 90.3% of our respondents are not aware about tobacco and they concluded that Health awareness programs related to awareness of ill effects of tobacco should be tailor-made to the targeted population and should be more focused on the control of specific risk factors.

Rajeshwar Nath Sharan and Tongbram Malemnganbi Chanu et al. (2020) they found that majority (80%) were first exposed to nicotine via tobacco smoking, SLT use or both. Most of the subjects (79%) believed that e-cigarettes were less harmful than smoking. The vast majority of smokers (71.3%) reported smoking cessation (30.0%) or reduction in consumption (41.3%) with the help of e-cigarettes.

OBJECTIVES OF THE STUDY

1. To access the awareness level on the Effects of Smoking among Public smokers of Tamil Nadu.

HYPOTHESIS OF THE STUDY

On the basis of the theoretical knowledge, framed objective and on the basis of outcome of the review of previous studies, the following null hypothesis has been formulated.

H0: Socio-economic characteristics of the public smokers and awareness level about the effects of smoking are different.

RESEARCH METHODOLOGY

This is an empirical study based on the survey method. As the areas of operation are wide, Tamil Nadu has been purposively selected to the present study and Tamil Nadu has a population of 7.88 Crores (According to Unique Identification Aadhar India) living in 32 districts. The required data have been collected by using well designed Google form in an English language. Convenient sampling technique has been adopted for collection of primary data. Required data have been collected from the 164 respondents. Such collected data have been analyzed with the help of various statistical tools like Percentage Analysis, Chi-square Test and Multiple Regression Analysis.

ANALYSIS AND DISCUSSION

AWARENESS LEVEL

To measure the awareness level about the effects of smoking of smoker, nonsmoker and environment. 32 statements towards the awareness level have been measured with Rensis Likert's five-point scale. On the basis of quantification procedure, it is found that 61% of the sample respondents are having low level awareness about the effects of smoking. Details of the findings are shown in Table 1.

TABLE 1 CLASSIFICATION OF THE RESPONDENTS BY AWARENESS SCORE

Awareness Level	No of the Respondents	Mean Score	Total Score	SD
High Aware	64 (39)	1.823	116.68	0.455
Low Aware	100 (61)	1.472	147.20	0.503
Total	164 (100)	1.609	263.88	0.489

Source: Primary data.

Table 1 indicates that majority (61%) of the sample respondents are in low awareness level about the effects of smoking. The mean score of the respondents are 1.609 and standard deviation is 0.489.

AWARENESS LEVEL OF THE RESPONDENTS ABOUT THE EFFECTS OF SMOKING: CHI SQUARE TEST

Respondents' awareness level has been examined by framing a null hypothesis and the same has been tested with chi square at 5% level of significance. Details of the findings are shown in Table 2.

TABLE 2 AWARENESS LEVEL OF THE RESPONDENTS ABOUT THE EFFECTS OF SMOKING: CHI SQUARE TEST

Socio Economic Characteristics		High Aware	Less Aware	Total	DP	Chi – Squarer Value	Result
Gender	Male	64 (39.8)	97 (60.2)	161 (100)	1	1.956	H_0 Accepted
	Female	0	3 (100)	3 (100)			
	Total	64 (39)	100 (61)	164 (100)			
Age	Young	38 (43.7)	49 (56.3)	87 (100)	2.	1.848	H_0 Accepted
	Middle	20 (35.1)	37 (64.9)	57 (100)			
	Old	6 (30)	14 (70)	20 (100)			
	Total	64 (39)	100 (61)	164 (100)			
Religion	Hindu	47 (39.5)	72 (60.5)	119 (100)	2	0.115	H_0 Accepted
	Muslim	8 (40)	12 (60)	20 (100)			
	Christian	9 (36)	16 (64)	25 (100)			
	Total	64 (39)	100 (61)	164 (100)			

Educational Qualification	UG	38 (37.6)	63 (62.4)	101 (100)	2	0.237	H_0 Accepted
	PG	15 (40.5)	22 (59.5)	37 (100)			
	Others	11 (42.3)	15 (57.5)	26 100()			
	Total	64 (39)	100 (61)	164 (100)			
Professional	Self Employee	12 (31.6)	26 (68.4)	38 (100)	3	2.662	H_0 Accepted
	Private Employee	15 (38.5)	24 (61.5	39 (100)			
	Government Employee	13 (52)	12 (48)	25 (100)			
	Others	24 (38.7)	38 (61.3)	62 (100)			
	Total	64 (39)	100 (61)	164 (100)			
Monthly Income	Low	40 (36.7)	69 (63.3)	109 (100)	2	1.097	H_0 accepted
	Medium	18 (46.2)	21 (53.8)	39 (100)			
	High	6 (37.5)	10 (62.5)	16 (100)			
	Total	64 (39)	100 (61)	164 (100)			
Cigarettes used per day	Below 4	29 (39.7)	44 (60.3)	73 (100)	2	0.055	H_0 Accepted
	Between 4 to 6	15 (37.5)	25 (62.5)	40 (100)			
	Above 6	20 (39.2)	31 (60.8)	51 (100)			
	Total	64 (39)	100 (61)	164 (100)			
Time gap	2 Hrs. once	15 (38.5)	24 (61.5)	39 (100)	1	0.007	H_0 Accepted
	3 Hrs. once	49 (39.2)	76 (60.8)	125 (100)			
	Total	64 (39)	100 (61)	164 (100)			

Source: Primary Data. Note: DF: Degree of Freedom.

Gender and awareness level: As computed value of χ^2 (1.956) is less than the Table value (3.841). So, the framed null hypothesis is accepted and it can be concluded that there is no association between the gender and their awareness level about the effects of smoking.

Age and awareness level: The computed value of χ^2 (1.848) is less than the Table value (5.991). Hence, the framed null hypothesis is correct and it can be concluded that there is no association between the age and their awareness level about the effects of smoking.

Religion and awareness level: The computed value of χ^2 (0.115) is less than the Table value (5.991). Henceforth, the framed null hypothesis is correct and it can be concluded that there is no association between the Religion and their awareness level about the effects of smoking.

Educational Qualification and awareness level: As computed value of χ^2 (0.237) is less than the Table value (5.991), the framed null hypothesis is true and it can be concluded that there is no association between the educational qualification of the respondents and their awareness level about the effects of smoking.

Professional and awareness level: The computed value of χ^2 (2.662) is less than the Table value (7.815). Hence, the framed null hypothesis is correct and it can be concluded that there is no association between professional and their awareness level about the effects of smoking.

Monthly Income and awareness level: The computed value of χ^2 (1.097) is less than the Table value (5.991). Hence, the framed null hypothesis is correct and it can be concluded that there is no association between monthly income and their awareness level about the effects of smoking.

Cigarettes used per day and awareness level: The computed value of χ^2 (0.055) is less than the Table value (5.991). So, the framed null hypothesis is correct and it can be concluded that there is no association between Cigarettes used per day and their awareness level about the effects of smoking.

Time gap and awareness level: The computed value of χ^2 (0.007) is less than the Table value (3.841). Hence, the framed null hypothesis is correct and it can be concluded that there is no association between time taken for usage of cigarettes and their awareness level about the effects of smoking.

AWARENESS LEVEL OF THE RESPONDENTS ABOUT THE EFFECTS OF SMOKING: MULTIPLE REGRESSION ANALYSIS

Multiple Regression analysis has been applied with eight independent variables to ascertain the impact of the different set of dependent variables on awareness. The regressions are estimated using cross-section data of 164 sample respondents. Awareness score has been taken as dependent variable and socio-economic characteristics and independent variables. Details of the findings are shown in Table 3.

TABLE 3 AWARENESS LEVEL OF THE RESPONDENTS ABOUT THE EFFECTS OF SMOKING: MULTIPLE REGRESSION ANALYSIS

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.130	0.415		2.724	0.007
Gender	0.429	0.295	0.118	1.455	0.148*

Age	0.073	0.059	0.104	1.236	0.218*
Religion	0.014	0.058	0.021	0.242	0.809**
Educational Qualification	0.002	0.065	0.003	0.026	0.980**
Professional	0.002	0.040	0.005	0.048	0.962**
Monthly Income	-0.017	0.069	-0.024	-0.250	0.803**
Cigarettes used per day	-0.137	0.149	-0.106	-0.919	0.359*
Time gap	0.045	0.068	0.079	0.662	0.509**
'R'	0.181				
'R^2'	0.033				
'F'	0.655				

Source: Primary Data. Note: * is significant at 5% level and ** significant at 1% level.

Table 3 shows that the regression coefficient of variables like Gender, Age, Religion, Educational Qualification, Professional, Monthly Income, Cigarettes used per day, Time gap are 1.455, 1.236, 0.242, 0.026, 0.048, -0.250, -0.919 and 0.662 respectively. It is further observed that regression co-efficient of variables like Gender, Age, Religion, Educational Qualification, Professional, Monthly Income and Time gap have positive effect on overall awareness scores. Regression Co-efficient of variables like Monthly Income and Cigarettes used per day has negative effect on overall awareness score. Variables like gender, age and cigarettes used per day are significant at 5% level. Variables like religion, educational qualification, professional and the cigarettes used per day are significant at 1% level. The R^2 indicates that 0.033% of the variations are captured from the Socio-economic characteristics included in the model. The 'F' Value show that Regression model fitted is statically significant at 1% level.

SUGGESTION AND CONCLUSION

In the present study, while examining the effects of smoking among public smokers, it is found that majority (61%) of the sample respondents are in low awareness level about the effects of smoking. Hence, it is suggested that the Government of India and Government of Tamil Nadu should take necessary step to increase awareness level among public smokers about the hazard of health, soil and water. Also, the consequences of chewing, smoking or ingesting tobacco.

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