



ORIGINAL RESEARCH PAPER

Nursing

A COMPARATIVE STUDY TO ASSESS THE LEVEL OF KNOWLEDGE ON ORAL CANCER AMONG ADULTS IN RURAL AND URBAN AREA

KEY WORDS: Oral cancer, knowledge, cancer

David robinson

Clinical Instructor, Department of Medical Surgical Nursing, Saveetha College of Nursing, SIMATS, Chennai, India

Dr.S.KalaBarathi*

Prof. B.sc (nursing) IV year, Saveetha College of Nursing, SIMATS, Chennai, India *Corresponding Author

ABSTRACT

Smoking is the single most preventable cause of death in our society". Each year smoking kills more people than AIDS, drug abuse, suicides, and fires, combined. In India the proportion of tobacco related cancers relative to all cancers range from 35% in Bangalore to 50% in Bhopal among males. About 2000 deaths a day in India is tobacco related. According to B.B.C, "4 in 10 of all cancer in India are oral cancer". So the present study is done to assess the level of knowledge on oral cancer among adults in rural (Perambakkam) and urban (Ambathur) area. Quantitative approach descriptive design was adopted to conduct this study. 100 samples were selected with purposive sampling technique, 50 samples from rural area and 50 samples from urban area. The data was collected using the tools which consist of two sections, demographic variables and self-structured questionnaire to assess the level of knowledge on oral cancer. Out of 50 samples in rural area, 7(14%) had inadequate knowledge, 41(82%) had moderate knowledge and 2(4%) had adequate knowledge. Out of 50 samples in urban area, 3(6%) had inadequate knowledge, 25(50%) had moderate knowledge and 22(44%) had adequate knowledge in urban area. This study reveals that more number of adults (44%) in urban area (Ambathur) has adequate knowledge than the number of adults (4%) in the rural area (Perambakkam).

INTRODUCTION:

Cancer of the oral cavity and pharynx can occur in any part of the mouth (lips, lateral tongue, floor of mouth most common) or throat and is highly curable if discovered early. Risk factors for cancer of the oral cavity and pharynx include cigarette, cigar, and pipe smoking; use of smokeless tobacco; and excessive use of alcohol. Oral cancers are often associated with the combined use of alcohol and tobacco. Other factors include gender (male), age (older than 50 years), and African American descent. Malignancies of the oral cavity are usually squamous cell cancers.^[1]

Cancer is the second most common cause of death in the world, after cardiovascular diseases (Johnson's, 2001)^[2]. It is increasing as a leading killer across the globe especially in the developing world. Presently more than 10 million people globally are diagnosed with cancer each year (Indian Journal of Medical and Pediatric Oncology 2010).^[3]

In particularly oral cancer is one of the common cancer in India, Oral cancer ranks as the 12th most common form of cancer in the world. Comparative to other cancers, Oral cancer is the first most common cancer in men (National Institute of Cancer Prevention and Research 2018).^[4] Mostly oral cancer affects the person from the lower socioeconomic status of society and people in rural area due to a higher exposure to risk factors such as the use of tobacco. A study states that the use of tobacco in the form of smoking has 5.19 times higher risk or precancerous lesions on palate when compared to that of tobacco chewing.^{[5],[6]}

A variety of mucosal changes have been noted in habitual users of smoked and smokeless tobacco. 90% of oral cancer can be attributed to specific etiological agents, the most important being the habits of chewing and smoking tobacco in various forms (WHO-2005)^[7]. The major threat faced by women and children in India is second hand smoke. India has 5 million child smokers with 55,000 children starting regular tobacco use every year (Journal of Health for the Millions, 2004).^[8]

Tobacco users are more common in northern and eastern states. Since the people of north eastern states migrate to Thandalam for job, the rate of oral cancers risk increases, lack of awareness is the problem in world and so new cases annually exceeding. In future the nation has to be safe from oral cancer, nurses must come forward to speak against

tobacco use to tobacco awareness and control program, so the researcher felt the need to do a study on assessing and improving the knowledge on oral cancer among risk group.

OBJECTIVES:

- To assess the level of knowledge on oral cancer among adults in rural and urban areas
- To compare the level of knowledge on oral cancer between adults in rural and urban areas
- To associate between selected demographic variables with the level of knowledge on oral cancer among adults in rural and urban areas

MATERIAL AND METHODS:

Quantitative approach descriptive design was adopted to conduct this study. 100 samples were selected with purposive sampling technique, 50 samples from rural area and 50 samples from urban area. The inclusion criteria are above 18 years of age, willing to participate in the study. The data was collected using the tools which consist of two sections, demographic variables and self-structured questionnaire to assess the level of knowledge on oral cancer, which related to tobacco ill effect, oral cancer clinical manifestation, diagnostic findings and prevention of oral cancer.

The questionnaire was used to get the demographic variable such as age, gender, education, occupation, marital status, income, personal habits and exposure to UV rays.

The study investigators explained to the samples about the study's objectives, rational and requirement of consent to participate in the study. The investigators then provided instructions for filling the questionnaire, and then guided the samples. The understanding of each question was checked by asking the samples to repeat the meaning. During the filling of questionnaires, the investigators helped the samples throughout and helped simplifying the meaning of each question, clarifying doubts and checking for completeness of filling up the questionnaire.

Chi-square test was used to test the association between categorical variables. P < 0.05 was taken as statistically significant.

RESULTS:

Out of 50 samples in rural area, 7(14%) had inadequate knowledge, 41(82%) had moderate knowledge and 2(4%)

had adequate knowledge. Out of 50 samples in urban area, 3(6%) had inadequate knowledge, 25(50%) had moderate knowledge and 22(44%) had adequate knowledge in urban area. In unpaired t-test for comparing significant difference, t-value is 4.7627 and P-value is 0.00001. P<0.05 shows the level of knowledge on oral cancer was statistically significant in both rural and urban area (TABLE 2). There was a significant association between the age, gender, education, family history of oral cancer, family income, and exposure to UV rays and the level of knowledge on oral cancer among adults in rural area (Perambakkam) at p<0.05. There was a significant association between the education, occupation, habits and the level of knowledge on oral cancer among adults in urban area (Ambathur) at p<0.05. This study reveals that more number of adults (44%) in urban area (Ambathur) has adequate knowledge than the number of adults (4%) in the rural area (Perambakkam).

FIGURE 1: level of knowledge on oral cancer among adults in rural and urban area

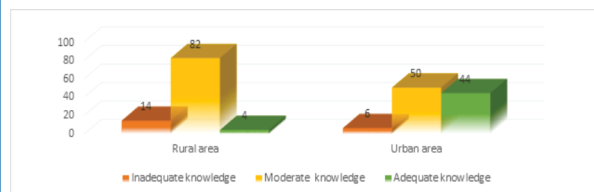


TABLE 1: Frequency and percentage distribution of demographic variable among adults in rural and urban area.

S.no	Demographic variable	Rural area		Urban area	
		Frequency	Percentage	Frequency	Percentage
1	Age				
	a. 18-25 years	22	44%	28	56%
	b. 26-35years	19	38%	15	30%
	c. 36-45years	6	12%	5	10%
2	Gender				
	a) Male	37	74%	41	82%
	b) Female	13	26%	9	18%
	3	Education			
a. Illiterate	28	56%	4	8%	
b. School education	17	34%	24	48%	
c. Graduate	4	8%	16	32%	
d. Post-graduate	1	2%	6	12%	
4	Family history of Oral cancer, if yes				
	a. Mother	2	4%	-	-
	b. Father	6	12%	-	-
	c. Others	3	6%	6	12%
d. No	39	78%	44	88%	
5	Family income per month				
	a. Below 5000	11	22%	-	-
	b. 5000-8000	35	70%	21	42%
c. 9000-15000	4	8%	29	58%	
6	Marital status				
	a. Married	19	38%	16	32%
	b. Single	27	54%	33	66%
	c. Divorce	-	-	-	2%
d. Widow	4	8%	1	-	
7	Occupation				
	a. Student	13	26%	17	34%
	b. Employed	31	62%	30	60%
c. Unemployed	6	12%	3	6%	
8	Habits				
	a. Smoking	23	46%	20	40%
	b. Alcohol	7	14%	16	32%
	c. Tobacco chewing	4	8%	3	6%
d. None of the above	16	32%	11	22%	
9	Exposure to UV rays				
	a. Yes	38	76%	47	94%
b. No	12	24%	3	6%	

The Table 1 Shows that majority of samples in both rural (44%) and urban (56%) were 18-25 years old and males in rural were (72%) and in urban (82%), in rural the most people were illiterate 28(56%) and in urban 24 (48%) were studied up to school education. In the family history of oral cancer among rural people were 2(4%) was present in mothers 6(12%) was in fathers and 3(9%) in others. Majority of rural people family income is 35(70%) 5000-8000 per month were else in urban 29(58%) 9000-15000 per month. 23(46%) people in rural has habits of smoking, 4(8%) use of tobacco, in urban 20(40%) smokes cigarette and 16(32%) consume alcohol.

TABLE 2: Comparison of the level of knowledge on oral cancer among adults in rural and urban area

Knowledge on Oral cancer among adults	Mean	Standard deviation	Unpaired t-test	
			t-value	P-value
Rural area	9.66	2.385	t=4.7627	0.0000
Urban area	12.78	3.971	df= 98	(S)

DISCUSSION:

The findings of the present study reveals that the frequency and percentage distribution of the level of knowledge on oral cancer among adults in rural and urban area showed that in rural area the 7(14%) has inadequate knowledge, 41(82%) has moderate knowledge and adequate knowledge is 2(4%). In urban the majority people has moderate knowledge 25(50%) ad 22(44%) has adequate knowledge. (FIGURE 1)

Which is similar findings by N Junior Sundresh et. al., (2016) who conducted a study to assess the existing knowledge regarding oral cancer among factory workers. A total of 40 samples using a semi-structured questionnaire. The result shows that 2.5% people aware about oral cancer and its early symptoms. Furthermore 22.5% of people are not aware about oral cancer as well as 75% of people were had an average adequate knowledge.^[10]

Another similar study by Monteiro LS et. al., (2016) who conducted a study to assess the awareness and knowledge on oral cancer in a General population of Oporto city, in Portugal. Face to face interviews were performed with 1116 individuals, resident in the city of Oporto. Breast cancer was the most mentioned being as heard of 69.8% while oral cancer was one of the least heard of 23.7%. Tobacco was identified as a risk factors by 54.8% of individuals and the knowledge was associated with their education level (p<0.0001). There is a General lack of awareness and oral cancer among this Oporto population, higher education level and better oral health care were significant factors that identified individuals with the better awareness and knowledge of oral cancer.^[11]

Another similar study by Mahesh Kadammanavar et. al., (2015) who conducted a study to assess the level of awareness and risk factors for oral cancer among rural adult population. A self-administered questionnaire was used to collect information from 400 randomly selected rural adult populations above 18 years of age. Statistical analyses were performed with the chi-square test. The result of the study is total of 400 rural adult population participated in this study. About 181 (45.2%) participants were aware with the term oral cancer and 182 (45.5%) knew about one or more risk factors for oral cancer. Majority 264 (66%) participants were unaware about warning signs of oral cancer. Only 40 (10%) participants think that oral cancer is preventable by avoiding consumption of tobacco and regular screening.^[12]

There was a significant association between the age, gender, education, family history of oral cancer, family income, and exposure to UV rays and the level of knowledge on oral cancer among rural people in Perambakkam at p<0.05.

There was a significant association between the education, occupation, habits and the level of knowledge on oral cancer

among urban people in Ambathur at $p < 0.05$.

ACKNOWLEDGEMENT:

The authors are thankful to Prof.Dr.S.Kalabarathi, principal of Saveetha College of Nursing, SIMATS. The authors also wish cordial thanks to Mr. David Robinson M.Sc. (N), Clinical Instructor of Saveetha College of Nursing, SIMATS, for their encouragement, valuable suggestions, support and advice given throughout the study.

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