A Quasi-Experimental Study to Evaluate the Effectiveness of Mass Awareness Program on Knowledge and Attitude Regarding Oral Cancer among Adults in Selected Rural Community Area, Bharatpur

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Abstract: _Aim: A Study To Evaluate The Effectiveness Of Mass Awareness Program On Knowledge And Attitude Regarding Oral Cancer Among Adults In Selected Rural Community Area, Bharatpur."_ **Methodology:** _A Quasi-experimental one-group pre test-post test research design used in the study. The sample consisted of 60 adult using tobacco of selected rural community area and was selected sample by purposive sampling method. The data were collected through a self structured questionnaire & modified likert attitude scale._ _Results: In pre test Out of 60 adults, 53 (88.3%) were having inadequate knowledge and 7 (11.7%) were having moderate knowledge. Out of 60 adults 58 (96.7%) were having unfavorable attitude, 2 (3.3%) were having moderate attitude. In post test out of 60 respondents 9 (15%) are having moderate knowledge regarding oral cancer, 51 (85%) are having adequate knowledge regarding oral cancer. reveals that out of 60 adults 50 (83.3%) were having moderate attitude regarding oral cancer, 10 (16.7%) were having favorable attitude regarding oral cancer._

Keywords: Mass Awareness Programme, Not Significant, agree (SA), agree (A), not agree (NA), disagree (DA), Strongly disagree (SDA).

1. Introduction

Oral cancer or oral cavity cancer, a subtype of head and neck cancer, is any cancerous tissue growth located in the oral cavity. It may arise as a primary lesion originating in any of the oral tissues, by metastasis from a distant site of origin, or by extension from a neighboring anatomic structure, such as the nasal cavity or the maxillary sinus. oral cancer is part of a group of cancer called head and neck cancers. Oral cancer begins in tongue and floor of the mouth. Almost all of oral cancers begin in the flat cells squamous cells that cover the surface of the mouth, tongue and lips.

The most common site for oral cancer in the older age group was the buccal mucosa (37%), Followed by tongue (21%) and gingiva (20%)[2]. It is among the most common cancers seen in both Indian men and women as can be gauged from the records of the National Cancer Registry Programme.

Tobacco use is associated with about 75 percent of oral cancer cases, caused by irritation of the mucous membranes of the mouth from smoke and heat of cigarettes, cigars, and pipes. Tobacco contains over 60 known carcinogens, and the combustion of it, and by products from this process, is the primary mode of involvement. Use of chewing tobacco or snuff causes irritation from direct contact with the mucous membranes.

India has one of the highest incidences of oral cancer in the world. The highest incidence of oral cancer and precancerous lesions in India has long been linked with the habit of betel quid chewing incorporating tobacco. In India

it is estimated that 63.5% of population is under the age group of 15-64 years. Males are found 349, 785, 804 and females 326, 289, 402. India account 86% of world''s oral cancer cases says study conducted by the National institute of Public Health in Feb2011.

In Karnataka in 2010, it was found that nearly 10, 000 of the 36, 000 fresh cases of cancers reported every year were that of oral cancer. Over the last five years oral cancers among youngsters has gone up, with six per hundred thousand populations between 20-40 years affected.

Rajasthan has the highest (incidence) number of cab drivers, among them habit ofchewing tobacco among them is very high and are high risk for oral cancer.

Oral cancer ranks number one among man and number three among women in India. Oral cancer constitutes 12% of all cancers among in men and 8% of all cancers among women. In India it is estimates that among 400 million individuals aged 15 years and over 47% use tobacco in one form or the other. Annual incidence rate is estimated to be 64, 640.

Oral cancer has been found to be more prevalent among men compared to women; the associated sex ratio was 2.5:1. This ratio seems to be vary from one study to the other in India for example sankaranarayana et al (1990) has reported almost the ratio (2:1) and Mehrotra (2003) has shown higher ratio 3.2:7) while lower ratios have been reported by chattopadhyaya (1989). It may be due to the more exposure to risk factors such as tobacco and alcohol by men compare to women. According to Subramanian et al. (2004), in India

men are considerably more likely to smoke as well as chew tobacco than women.

Many epidemiological studies conducted over the last three decades in America, Europe and Asia have provided strong evidence of an association between alcohol and tobacco use and an increased risk of oral and it is the sixth most common cancer reported globally with an annual incidence of over 300, 000 cases, of which 62% arise in developing countries.

Tobacco use is one of the chief preventable causes of death in the world. WHO attribute some 4 million deaths due to tobacco, a figure which is expected to rise to 8.4 million deaths a year by 2020. By that time 10% of these deaths will be occurring in the developing countries.

The Governments most recent National sample survey indicates that there are 1, 194 millions consumers in India with tobacco with tobacco use differing greatly from the rest of the world. Some 96 million people use smokeless tobacco and while 20 % consumed cigarettes, nearly 40% smoke bedi which deliver more nicotine than cigarettes. The remaining 40% chew tobacco and tobacco containing products such as snuff, betal, quid, zarda, pan masala, gutkha, kiman. According to WHO by 2020 tobacco will be solely responsible for 13.3% of death in India.

WHO as estimated that 91 per cent of oral cancer in south-east asia are directly attributed to the use of tobacco and this is the leading cause of oral cavity and lung cancer in India The world health organization considers adult to be the periods between 20-65 years. In India 15 to 65 years 53.5% male 349, 785, 804; female 326, 289, 402.

Public awareness about the risk factor and methods of early detection of oral cancer are quite low. Those who consumed more "pans" daily were significantly older, less literate, had a lower education attainment, and were more likely to believe less beneficial. Hence the gap in the knowledge and attitude are growing risks and other sides necessitate the need to systematically investigate the knowledge and attitude of adults regarding oral cancer. It is also anticipated that this study may increase awareness among adults regarding oral cancer and motivated the researcher to do this study.

2. Methodology

Statement of the problem:
"A quasi-experimental study to evaluate the effectiveness of mass awareness program on knowledge and attitude regarding oral cancer among adults in selected community, Bharatpur."

Objectives of the Study:
1) To assess the knowledge regarding oral cancer before and after Mass awareness program among adults using tobacco.
2) To assess the attitude towards prevention of oral cancer among adults using tobacco before and after mass awareness program.
3) To find out the relationship between knowledge and attitude towards oral cancer among adults
4) To determine the association between knowledge and attitude of adults with selected demographic variables.

Assumptions
It is estimated that adults may have some knowledge regarding oral cancer associated with tobacco use.
It is assumed that adults may have favourable attitude towards prevention of oral cancer.

Hypothesis:
H1: There is a significant increase in the level of knowledge on oral cancer among adults using tobacco after mass awareness program than before.
H2: There is a significant difference in attitude regarding oral cancer among adults using tobacco after Mass awareness Program than before.

Variable: In the present study the independent variable is the Mass Awareness Program on Oral cancer and dependent variable is the Knowledge and attitude of adults.

Demographic Variables : Such as age, religion, gender, marital status, education, occupation, income, habit of tobacco use, form of tobacco use, duration of use, amount, any family history of oral cancer, source of information regarding oral cancer among adults.

Setting of the Study: The Study was conducted in sewar selected rural community area, Bharatpur, Rajasthan, which is 10 kms away from Shree Digamber Degree College of Nursing.

Sample & Sample Size:
The sample consist of 60 adults both males and females aged between 20-40 years, residing in rural area coming under the Bharatpur, PHC, Rajasthan who fulfills the inclusion criteria.

Sampling Technique: The samples were selected by using purposive sampling technique.

Description of Tool:
The tool consists of three parts A, B, C.
Part A: Demographic Variables
This section consisted of 10 items seeking personal information such as Age, Gender, Religion, Educational status, Occupation, Income, Marital status, Family history of oral cancer, Family history of tobacco use, Source of information. The respondents were requested to answer for the data.

Part B: Structured Questionnaire
The structured questionnaire consisted of 20 multiple choice questions Each question has 4 responses with which one correct response. Score 1 is given for each response in a single question and score 0 for wrong response. The maximum score is 20.

Scoring Interpretation:
Adequate knowledge: 76-100% (16-20)
Moderate knowledge: 50-75% (10-15)
Inadequate knowledge: less than 50% (1-9)

Part C: Attitude Rating Scale

5 point Likert scale prepared with attitude statement regarding oral cancer. It consists of 15 statements and 5 columns such as strongly agree (SA), agree (A), not agree (NA), disagree (DA), Strongly disagree (SDA). There are 9 positive and 6 negative statements. The results scores were ranged, follows highly favorable: 76-100% (57-75), Moderate favorable: 50-75% (38-56), Unfavorable: less than 50% (1-39).

Validation of the Tool: The content validity of the tool was established by 7 experts; which included 1 doctor, 1 statistician and 5 nurse educators, for content validity.

Reliability of the Tool: Coefficient of correlation of knowledge test was found to r=0.99 and attitude scale was found to be 0.914 which proved that the tool was highly reliable.

Pilot study

The pilot study was conducted in Sewar, coming under Bharatpur PHC, Rajasthan form 04/09/2018 to 14/09/2018

Ethical consideration: The proposed study was conducted after the approval of dissertation committee of Shree Diagmber Degree College of Nursing. Permission was obtained from the Medical officer, PHC, Bharatpur.

3. Results

Table 1: Frequency and Percentage Distribution of Adults on Pre Test and Post Test Knowledge Scores Regarding Oral Cancer

S. No	Knowledge level	Category	Pre-test		Post-test	
			n	%	N	%
1	Inadequate	<50% score	53	88.3	0	0
2	Moderately adequate	51-75% score	7	11.7	9	15
3	Adequate	>75% score	0	0	51	85
	Total		60	100	60	100

Table 1 & FIG 1 shows that the knowledge scores of adults regarding oral cancer. The result indicate that 53 (88.3%) had inadequate knowledge in pre test, 7 (117%) had moderate knowledge and no one had adequate knowledge on oral cancer among adults in pretest. In post test 51 (85%) had adequate knowledge, 9 (15%) had moderate knowledge and no one had inadequate knowledge regarding oral cancer among adults.
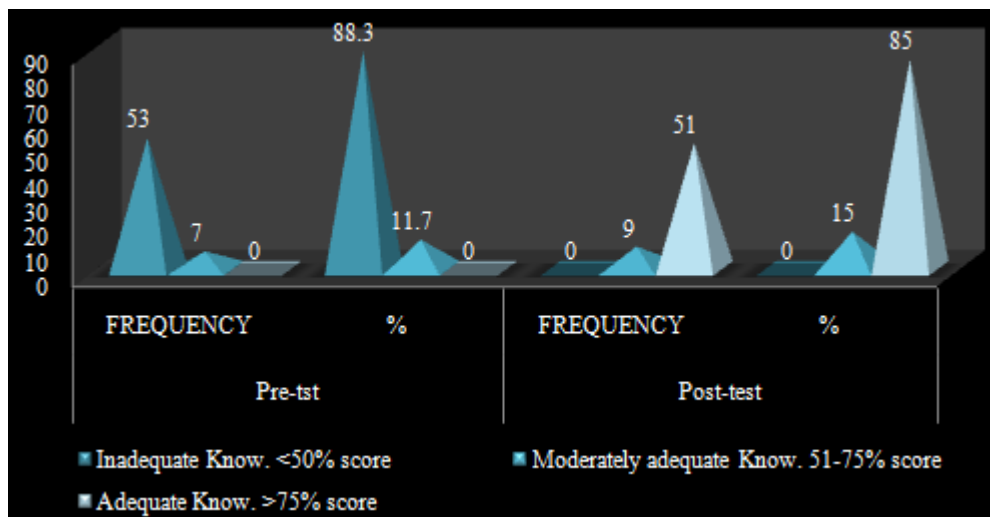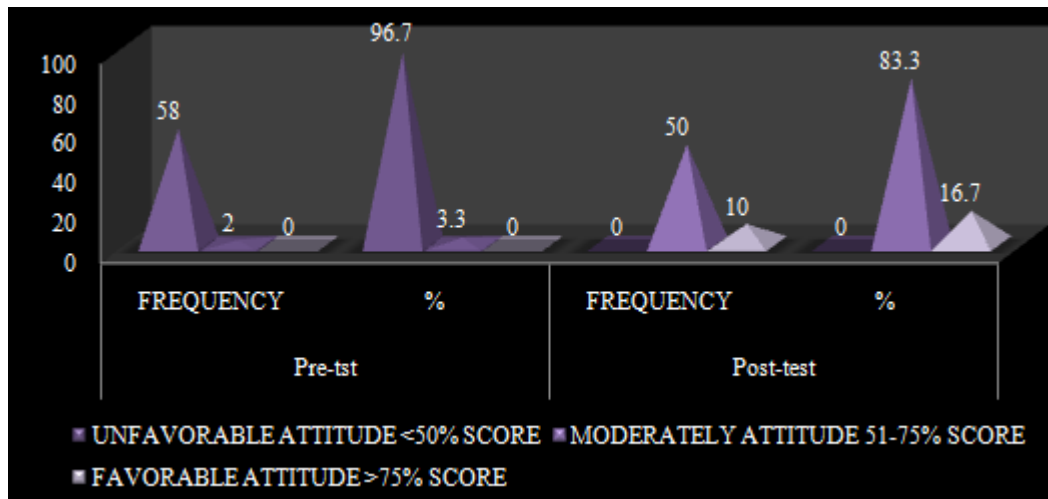

Figure 1: Showing Frequency and Percentage Distribution of Adults on Pre Test and Post Test Knowledge Scores Regarding Oral Cancer

Table 2: Frequency and percentage distribution of adults on pre test & post test attitude scores regarding oral cancer

Level of Attitude	Category	Pre-test		Post-test	
		Frequency	%	Frequency	%
Unfavourable Attitude	<50% Score	58	96.7	0	0
Moderately Attitude	51-75% Score	2	3.3	50	83.3
Favourable Attitude	>75% Score	0	0	10	16.7

Table 2 & fig. 2 shows pre test reveals that out of 60 respondents, 58 (96.7%) were having unfavourable attitude regarding oral cancer followed by 2 (3.3%) were having moderate attitude regarding oral cancer.

Post test reveals that out of 60 adults 50 (83.3%) were having moderate attitude regarding oral cancer, 10 (16.7%) were having favourable attitude regarding oral cancer.

Figure 2: Showing Frequency and Percentage Distribution of Adults on Pre Test & Post Test Attitude Scores regarding Oral Oral Cancer

4. Discussion

The study was a quasi experimental study with one group pre-test post-test design used to evaluate the knowledge and attitude regarding oral cancer among adults. A structured questionnaire was used to collect the data from the adults and modified Likert"s attitude scale to asses attitude of adults. The pre test was followed by implementation of mass awareness program and post test was conducted 7 day after the mass awareness program to evaluate the effectiveness of awareness program.

Demographic Characteristics: Majority of adults belonged to age group 20-25 years 16 (26.67%) and 26-30 years 16 (26.67%), followed by 13 (21.66) to 31-35 years and 15 (25) to 36-40 years. In concern to gender most of the adults were males 45 (75%), females 15 (25%).Most of the adults were Hindu 26 (43.33), 18 (30%) of them were Muslim, 61 (26.67%) of were Christian. In relation to education status 14 (23.33%) were primary level, 21 (35%) were middle school level, 12 (20%) were high school level, 13 (21.67) were puc and above. In relation to occupation 17 (28.33%) were of government sector, 10 (16.67%) were of private sector, 13 (21.67%) were of agriculture, 9 (15%) were house wife, 11 (18.33%) were self employed. With regard to income 2 (3.33%) income is less than Rs. 10000, 15 (25%) of them income is Rs 10001-20000, 26 (43.33) of them income is Rs. 20001-25000, 17 (28.33) of them income is Rs. 25001 & above. Out of 60 adults 10 (16.67%) were unmarried, 28 (46.67%) were married, 5 (8.33%) were widow, 17 (28.33%) were divorced. Out of 60 adults 27 (45%) of them has family history of oral cancer, 33 (55%) of them has no family history of oral cancer. In relation to source of information regarding oral cancer 17 (28.33%) of them got the information from T.V, 20 (33.33%) of them got from newspaper, 13 (21.67%) got the information from friends, 10 (16.67%) got the information from others.

Objective 1: To assess the knowledge regarding oral cancer before and after Mass awareness program among adults using tobacco. Pre test reveals that out of 60 respondents, 53 (88.3%) respondents were having inadequate knowledge regarding oral cancer followed by 7 (11.7%) with moderately adequate knowledge**. Post test** reveals that out of 60 respondents 9 (15%) are having moderate knowledge regarding oral cancer, 51 (85%) are having adequate knowledge regarding oral cancer.

Objective 2: To assess the attitude towards prevention of oral cancer among adults using tobacco before and after mass awareness program. **pre test attitude** scores reveals that out of 60 respondents, 58 (96.7%) were having unfavourable attitude regarding oral cancer followed by 2 (3.3%) were having moderate attitude regarding oral cancer. **post test attitude** reveals that out of 60 adults 50 (83.3%) were having moderate attitude regarding oral cancer, 10 (16.7%) were having favourable attitude regarding oral cancer.

Objective 3: To find out the relationship between knowledge and attitude towards oral cancer among adults. the relationship between knowledge and attitude and post test score of adults regarding oral cancer, Mean knowledge is 16.20, standard deviation is 1.36. Mean attitude is 52.56, standard deviation is 4.7. Hence the r value is +0.82there is positive correlation between knowledge and attitude of adults in post test scores.

Hence H5 is accepted there is a relationship between mass Awareness Program and knowledge and attitude of adults in posttest.

Objective 4: To find out the relationship between knowledge and attitude towards oral cancer among adults association with selected socio demographic variables.
Demographic variables such as Age, gender, Religion, educational status, occupation, income, Marital status, family history of oral cancer, family history of tobacco use, source of information and knowledge level of pretest among adults regarding oral cancer are not significant.

Hence, the H4 is rejected and the null hypothesis is accepted. So there will be no significant association between **quality of attitude scores** and selected demographic variables in **pretest.**

Association between selected demographic variables and

quality of attitude of post test among adults regarding oral cancer.

Demographic variables such as Age, gender, Religion, educational status, occupation, income, Marital status, family history of oral cancer, family history of tobacco use, source of information and knowledge level of pretest among adults regarding oral cancer are not significant.

Hence, the H4 is rejected and the null hypothesis is accepted. So there will be no significant association between **quality of attitude** scores and selected demographic variables in **posttest.**

Demographic variables and **knowledge level of pretest** among adults regarding oral cancer. Described association between demographic variables such as Age, gender, Religion, educational status, occupation, income, Marital status, family history of oral cancer, family history of tobacco use, source of information and knowledge level of pretest among adults regarding oral cancer are not significant. Hence, the H3 is rejected and the null hypothesis is accepted. So there will be no significant association between level of knowledge scores and selected demographic variables in pretest.

Demographic variables and **knowledge level of post test** among adults regarding oral cancer. Described association between demographic variables such as Age, gender, Religion, educational status, occupation, income, Marital status, family history of oral cancer, family history of tobacco use, source of information and knowledge level of pretest among adults regarding oral cancer are not significant.Hence, the H3 is rejected and the null hypothesis is accepted. So there will be no significant association between level of knowledge scores and selected demographic variables in posttest.

Association between selected demographic variables and knowledge level of post test among adults regarding oral cancer. Described association between demographic variables such as Age, gender, Religion, educational status, occupation, income, Marital status, family history of oral cancer, family history of tobacco use, source of information and knowledge level of pretest among adults regarding oral cancer are not significant.Hence, the H3 is rejected and the null hypothesis is accepted. So there will be no significant association between level of knowledge scores and selected demographic variables in **post test.**

5. Conclusion

The present study evaluates the effectiveness of mass awareness programme on knowledge regarding oral cancer among adult using tabacco at sewar, PHC, Bharatpur. The findings of the study revealed that appropriate method of awareness will improve knowledge and change attitude of the adults. So it could be concluded that the Mass Awareness Program was effective in improving the knowledge and changing attitude of the adults on oral cancer.

The chi square was computed for pre test and post test

knowledge score and attitude and selected demographic variables showed no significant association. Hence it could be concluded that the knowledge the adults regarding oral cancer were independent of selected demographic variables.

Implications of the Study:
The findings of the study have implications for oral cancer prevention & education, nursing practice, nursing administration and nursing research.

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