

## Effectiveness of Pim on Knowledge & Practice in Oral Cancer Among Adults Attending out Patient Department At Selected Dental College & Hospital, Chennai



### oncology

**KEYWORDS :** PIM (Pictorial Instructional Module), Knowledge, Practice, Oral Cancer, Adults

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### ABSTRACT

*Objectives* 01. determine the effectiveness of knowledge and practice in oral cancer before and after PIM. 02. correlate the relationship between knowledge and practice in oral cancer before and after PIM. *METHODS:* Pre experimental study design was adopted. Non probability convenience sampling technique was used. Pre, post-test was conducted to assess the level of knowledge on oral cancer by structured interview questionnaire and practice on self mouth examination by checklist, on the same day teaching was given by PIM. *FINDINGS:* Values ( $t=37.661$  at  $p<0.001$  level) of knowledge, practice ( $t=40.22$  at  $p<0.000$  level) shows that there is statistical significant between pre and post test. Positive co relation between overall knowledge and practice score after PIM with an  $r$  value of 0.216 which is highly significant at  $P<0.05$  level. *Conclusion :* This study indicates that PIM had been highly effective in improving the knowledge among adults regarding prevention of oral cancer.

### Introduction:

Oral cancer is a malignant disease in which the cells undergo a dysplastic change and proliferate rapidly forming a growth and it arises from different parts of the oral cavity, with different predisposing factors, prevalence, and treatment outcomes. 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. The age-adjusted rates of oral cancer vary from over 20 per 100,000 population in India. Tobacco products are products made entirely or partly of leaf tobacco as raw material, which are intended to be smoked, sucked, chewed or snuffed. All contain the highly addictive psychoactive ingredient, nicotine. Tobacco kills up to half its users. By 2030, WHO estimates that tobacco will kill more than 8 million people every year, with four out of five of these deaths occurring in low and middle-income countries. According to American cancer society, India has one of the highest incidence of oral cancer in the world. The high incidence of oral cancer and oral pre-cancerous lesions in India has long been linked with the habit of betel quid chewing incorporating tobacco. Health cost of tobacco related diseases are greater than the income generated from tobacco.

### Objectives:

The study is to

01. assess the risk factors of oral cancer among adults
02. determine the effectiveness of knowledge and practice in oral cancer among adults before and after PIM.
03. correlate the relationship between knowledge and practice in oral cancer among adults before and after PIM.

### Hypothesis

There is a significant difference in the level of knowledge and practice in oral cancer before and after PIM among adults.

### Conceptual frame work :

The investigator have adopted the modified Nola Pender's (2006) Health promotion model. Health promotion model focuses on explaining health promoting behaviors using a wellness orientation.

- Individual characteristics and experiences that include prior related behaviours and personal factors. Personal factors fall into three categories: biological, psychological, and socio-cultural
- Behaviour-specific cognitions and affect were imparted with PIM on knowledge aspects and practice by self mouth examination.
- Behavioural outcomes includes early identification of oral pre cancerous lesions and quitting Tobacco

### Materials and METHODS

- ✓ Research Design - pre experimental study design
- ✓ Research Setting: -Oral medicine OPD of, Saveetha Dental College and Hospital . Chennai
- ✓ Population- adults who were having the risk of oral cancer attending oral medicine OPD
- ✓ Sample- Those who were having risk factors of oral cancer and attending oral medicine out -patient department regularly
- ✓ Sample size- 100 adults both male and female with one or more risk factors identified for the oral cancer.
- ✓ Sampling technique- Non probability convenience sampling technique

### SELECTION CRITERIA

#### Inclusion criteria

- 01 The adults with any one or more risk factors of oral cancer.
- 02 The sample with the age between 21 and 60 years.
- 03 The adults who were willing to participate in the study.
- 04 The adults with pre cancerous stage of oral cancer.

#### Exclusion criteria

01. A known case of oral cancer
02. The risk adults who were having acute dental illness
03. The adults who could not understand Tamil or English

### Description of tools

The Structured interview schedule consists of 20 items to assess the knowledge of risk adults regarding oral cancer. The questions were divided into 4 sections. Each section has 5 questions. Self mouth examination: Observation checklist was prepared to assess the practice of Self mouth examination regarding prevention of oral cancer. The check list consists of 10 items. Reliability was established by Split Half method. Reliability of the Structured interview questionnaire and observational checklist was tested. The value attained as  $R=2r/1+r =0.78, 0.75$  respectively. During the pilot study practicability and feasibility of the instrument was checked, and it was found to be feasible.

### Intervention

In this study PIM (Pictorial Instructional Module) is systematically designed information of pictures in brief and simple portrayed on knowledge and practice in oral cancer which comprises of introduction , risk factors, pre cancer, types, early signs of oral cancer, prevention of oral cancer by avoiding risk factors and steps of self Mouth examination. This was prepared by the investigator and validated by the experts. The risk adults asked to read and understand about oral cancer and steps of self mouth examination performed by them.

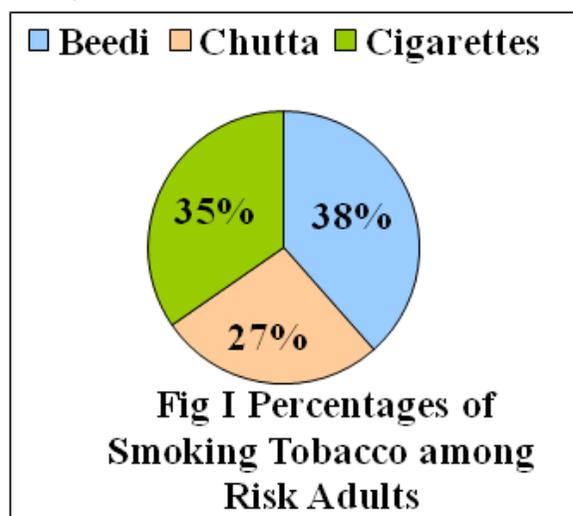
### Data collection procedure

The investigator first selected the sample by risk assessment

tool and by inclusion criteria .After sample selection informed consent was from each sample. The samples were made to sit comfortably and privacy was maintained. After the general instructions the investigator collected the demographic data using interview schedule.

The Structured interview schedule was administered to assess the level of knowledge on prevention of oral cancer and checklist was to assess the practice of self mouth examination. For each sample 20-30 minutes was taken to assess their pre test knowledge on prevention of oral cancer and practice of self mouth examination. After the pre test teaching programme was conducted for 20 minutes through PIM, after the programme 5-10 minutes was given for the sample to clarify their doubts. At the end of the teaching PIM on prevention of oral cancer was distributed. Reinforcement of PIM was given on review days by using same PIM. On Seventh day the Post-test was conducted to assess their knowledge on prevention of oral cancer by using the same Structured interview questionnaire and observational checklist was used to assess their practice of Self Mouth Examination. The data were analyzed by using descriptive and inferential statistics

**Findings:**



In Fig I reveals the percentage of smoking Tobacco among Risk adults Regarding risk factors, of smoking Tobacco out of 100 samples 38% were smoking beedi;27 were smoking chutta; 35% were smoking cigarettes Smoking chutta; 35% were smoking cigarettes

**Table 1: Distribution of mean and standard deviation of pre and post test knowledge and effectiveness of PIM on oral cancer among adults (n=100)**

Knowledge aspects on oral cancer	Pre Test	Post Test	Paired T test value		
	Mean	S.D	Mean	S.D	
Knowledge	34.20	13.72	80.80	17.04	t = 21.154, P<0.000***
Risk factors	34.80	16.23	82.00	13.78	t = 21.705, P<0.000***
Prevention	34.20	18.70	77.20	16.33	t = 15.912, P<0.000***
Self mouth examination					

	33.80	16.98	79.40	18.74	t = 19.300, P<0.000***
Overall knowledge					
	34.25	7.12	79.85	9.55	t = 37.661, P<0.000***

**Note: \*\*\* - P<0.001 Level of Significant. It indicates that PIM had been highly effective in improving the knowledge among adults regarding prevention of oral cancer.**

Table 1 indicates the paired t test values shows that there was statistical significance between pre and post test knowledge at p< 0.001level. It indicates that PIM had been highly effective in improving the knowledge among adults regarding prevention of oral cancer.

**Table 2: Distribution of mean and standard deviation of pre and post test practice and effectiveness of self mouth examination on oral cancer among adults(n=100)**

Practice	Pre Test Score		Post Test Score		Paired T test value
	Mean	S.D	Mean	S.D	
Level of Practice	36.85	5.30	71.80	7.96	t = 40.22 P < 0.000 ***

**Note: \*\*\* - P<0.001 Level of Significant**

Table 2 shows that the paired t test values shows that there was a statistical significance between pre and post test practice towards self mouth examination at p< 0.001 level. It indicates that PIM had been highly effective in improving the practice on self mouth examination among adults regarding prevention of oral cancer.

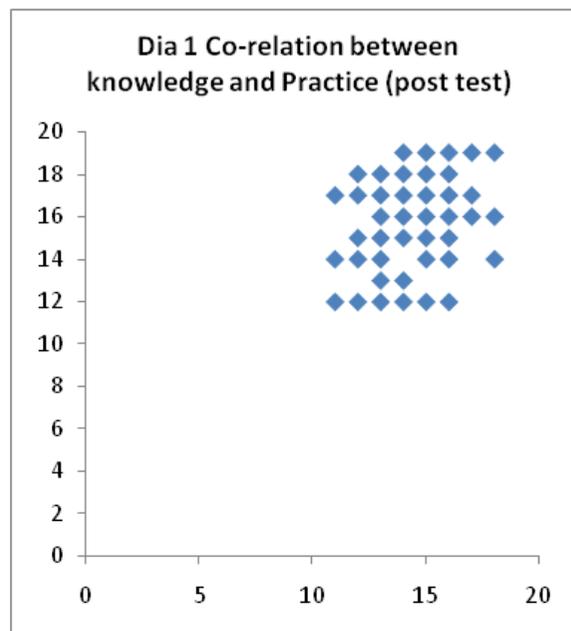


Diagram 1 indicates that there was appositve correlation score between overall knowledge and practice score after PIM with an r value of 0.216 which is highly significant at P<0.05 level. When the knowledge level increased, the practice skill also improved

**RECOMMENDATIONS**

- ❖ A similar study can be conducted on different sites of cancer like breast, skin and testicular.
- ❖ A comparative study can be conducted between the institution and community population
- ❖ A similar study can be conducted with the time series design to evaluate the retention of knowledge and practice on self mouth examination.

- ❖ Voluntary agencies can be involved in creating awareness among rural population about oral cancer prevention
- ❖ Tobacco cessation clinic can be conducted weekly once to prevent oral cancer at oral medicine OPD and our community health centre.
- A comparative study can be conducted to determine effectiveness of Pictorial Instructional Module among urban and rural population.
- An experimental study can be conducted by including more number of variables
- A similar study can be conducted along with their spouse.

#### Discussion:

On the whole, the study confirms the hypothesis, which was formulated at the beginning of the study that there is a significant increase in the level of knowledge and practice regarding prevention of oral cancer among adults before and after the PIM. The study strongly implied that the knowledge increased through PIM, where as the practice also increased after understanding knowledge on oral cancer.

#### Conclusion:

This study indicates that PIM had been highly effective in improving the knowledge among adults regarding prevention of oral cancer.

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