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## A study to assess the effectiveness of structured teaching programme on knowledge of adolescence boys regarding prevention of oral cancer in selected pre university colleges at Davangere

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### Abstract

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge of Adolescence Boys Regarding Prevention of Oral Cancer in Selected Pre University Colleges at Davangere” was conducted in partial fulfillment of the degree of master science in nursing at Bapuji College of nursing, Davanagere.

### The study objectives

1. To assess the preexisting knowledge regarding prevention of oral cancer among adolescence boys in terms of pretest score.
2. To assess the knowledge regarding prevention of oral cancer in terms of post- test score after administering structured teaching programme.
3. To compare the effectiveness of structured teaching programme in pre-test and post-test knowledge score.
4. To associate the level of knowledge on selected demographic variables of adolescence boys regarding prevention of oral cancer.

**Method:** The research approach used for the study was one group pretest posttest design. The setting was selected PU colleges at Davanagere. With a sample of 10 adolescents, pilot study was conducted, sample for the main study included 100 adolescents on the basis of convenient sampling technique. A structured questionnaire was used to evaluate the knowledge of adolescents regarding prevention of oral cancer. The reliability of the tool was established by split half technique and the reliability coefficient were calculated to be 0.82.

**Result:** The findings revealed that knowledge scores of adolescents were inadequate before the administration of structured teaching program (STP) on prevention of oral cancer, i.e the mean score of the pretest was 13.50. The STP helped them to update their knowledge on prevention of oral cancer. The mean post-test knowledge of sample significantly increased about 17.50 after administration of STP.

**Interpretation and Conclusion:** The data was analyzed by applying Descriptive and Inferential statistics. The results of the study indicated that adolescents do not have adequate knowledge regarding prevention of oral cancer. This assessment project has helped the investigator to develop an STP to improve the knowledge on prevention of oral cancer. The results have also shown that various demographic variable have significant association with respect to the knowledge of adolescents regarding prevention of oral cancer.

### Hypotheses

- **H1:** There will be a significant difference between the pretest and posttest knowledge scores of adolescence.
- **H2:** There will be significant association between the knowledge scores and selected demographical variables.

**Keywords:** Oral Cancer, prevention, adolescence boys, STP

### Introduction

”Prevention is one of the few known ways to reduce demand for health and aged care services”

Mouth cancer has the same meaning as oral cancer - it is cancer that occurs in any part of the mouth; on the tongue's surface, in the lips, inside the cheek, in the gums, in the roof and floor of the mouth, in the tonsils, and also the salivary glands.

Oral cancer begins in the mouth, also called the oral cavity. This region of the body includes the lips, the inside lining of the lips and cheeks (called the buccal mucosa), the teeth, the gums, most of the tongue, the bottom of the mouth, and the bony roof of the mouth, or hard palate. In addition, oral cancer can also develop in the oropharynx, which is the part of the throat that is just behind the mouth. When cancer occurs here, it is called oropharyngeal cancer or throat cancer, and can include the back of the tongue, the back of the roof of the mouth, the tonsils, and the walls of the upper throat.

There are several types of oral cancers, but around 90% are squamous cell carcinomas, originating in the tissues that line the mouth and lips. Oral or mouth cancer most commonly involves the tongue. It may also occur on the floor of the mouth, cheek lining, gingiva (gums), lips, or palate (roof of the mouth). Most oral cancers look very similar under the microscope and are called squamous cell carcinoma.

Oral cancer is a heterogeneous group of cancers arising 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. There is a significant difference in the incidence of oral cancer in different regions of the world. The age-adjusted rates of oral cancer vary from over 20 per 100,000 population in India, to 10 per 100,000 in the U.S., and less than 2 per 100,000 in the Middle East (1). In comparison

### Objectives of the study

1. To assess the preexisting knowledge regarding prevention of oral cancer among adolescence boys in terms of pretest score.
2. To assess the knowledge regarding prevention of oral cancer in terms of post-test score after administering structured teaching programme.
3. To compare the effectiveness of structured teaching programme in pre-test and post-test knowledge score.
4. To associate the level of knowledge on selected demographic variables of adolescence boys regarding prevention of oral cancer.

### Reviews of literature

"A good review from the critics is just another stay of execution."

-Dustin Hoffman

Review of literature is a systematic identification, location, scrutiny and summary of written material that contains information on research problem. The research reviews are organized under the following headings.

A study was conducted to find out Factors affecting oral cancer awareness in a high-risk population in India by Amrita Institute of Medical Sciences and Research Center, Cochin, India. The questionnaire was the tool used in the study. The result of the study showed that out of 1885 persons 86% had heard about oral cancer and 32% knew someone with oral cancer. Sixty-two percent of the subjects correctly identified the causes; this included 77% of the subjects who identifying smoking, 64% alcohol and 79% pan chewing as a cause of oral cancer. More than 42% believed that poor oral health could lead to oral cancer and 53% thought that oral cancer is an incurable disease. Eighty-

two percent of the smokers, 75% of the tobacco chewers and 66% of those who consumed alcohol were aware that their habits could lead to oral cancer.

With the U.S. population, where oral cavity cancer represents only about 3% of malignancies, it accounts for over 30% of all cancers in India. The variation in incidence and pattern of oral cancer is due to regional differences in the prevalence of risk factors. But as oral cancer has well-defined risk factors, these may be modified – giving real hope for primary prevention.

The main symptoms of oral cancer is a sore throat that does not heal, A Sore or Blister in Your Mouth, Difficulty Swallowing, a lump or thickening of the skin, a white or reddish patch inside your mouth, loose teeth, tongue pain difficulty or painful chewing weight loss and persistent bad breath. Oral cancer can develop in any part of the oral cavity or oropharynx. Most oral cancers begin in the tongue and in the floor of the mouth. Almost all oral cancers begin in the flat cells (squamous cells) that cover the surfaces of the mouth, tongue, and lips. These cancers are called squamous cell carcinomas. When oral cancer spreads (metastasizes), it usually travels through the lymphatic system. Cancer cells that enter the lymphatic system are carried along by lymph, a clear, watery fluid. The cancer cells often appear first in nearby lymph nodes in the neck. Cancer cells can also spread to other parts of the neck, the lungs, and other parts of the body. When this happens, the new tumor has the same kind of abnormal cells as the primary tumor. For example, if oral cancer spreads to the lungs, the cancer cells in the lungs are actually oral cancer cells. The disease is metastatic oral cancer, not lung cancer. It is treated as oral cancer, not lung cancer. Doctors sometimes call the new tumor "distant" or metastatic disease.

A Cross-sectional school-based survey was conducted to report the prevalence and socio-economic correlates of tobacco use among primary school pupils in Nairobi, Kenya. The results of study revealed that out of total of 31% had experimented with smoking, 9% with smokeless tobacco and 55% reported having friends who smoked. 15 years and above were significantly more likely than their counterparts aged 14 years and below to report lifetime smoking. The study concluded that the proportion of pupils who had smoked at least once in their lifetime amounted to (31%). Since primary school pupils live in an environment that makes them susceptible to smoking, preventive programmes should be introduced to avoid the development of nicotine addiction and regular smoking.<sup>6</sup>

The cross-sectional study was conducted to estimate the proportion of use and the knowledge about Smokeless tobacco (SLT) use among adult patients who visited family practice clinics in Karachi, Pakistan. The sample size was 502 adult patients. The simple randomization technique was used to select the samples. The results revealed that overall, 52.4% subjects had used SLT at least in one form. More males were using SLT than females. The study was concluded that over half of the patients were using SLT in various forms and had poor knowledge about its hazards.

### Research Methodology

According to Sharma (1990), research methodology involves the systemic procedure by which the researcher starts from initial identification of the problems to its final conclusions.

Research methodology aims at helping the researcher to

answer the research questions effectively, accurately and economically, and how research is done scientifically.

This chapter presents the methodology adopted for study. It includes the research approach, research design, setting, population, sample and sampling technique, instruments for data collection, and development of teaching strategy, pilot study, data collection procedure and plan for data analysis.

### Research approach

The approach adopted for this study is Evaluative research. Evaluative research is an applied form of research that involves finding out how well a programme, practice, procedure or policy is working effectively. The main goal is to assess or evaluate the success of the programme. In the present study, researcher aims to determine the effectiveness of structured teaching programme on knowledge regarding prevention of oral cancer among adolescents using an evaluative approach.

### Research design

The Research Design is the conceptual structure within which the research is conducted. The research design of a study spells out the basic strategies that the researchers adopt to develop information that is accurate and interpretable evidence. It is the overall plan for how to obtain answers to the questions being studied and handling some of the difficulties encountered during the research process. Research design provides backbone structure of the

study. It determines how the study will be organized, when the data will be collected and when interventions, if any are to be implemented.

In the present study “one group pre-test, post –test design” was selected which is a pre experimental design to measure the effectiveness of structured teaching program on prevention of oral cancer.

Population	O1	X	O2
	Pre-test on Day -1	Intervention on Day -1	Post-test on Day- 7
Adolescents studying in selected PU college at Davanagere. sample size - 100	Assessment of knowledge by using structured knowledge questionnaire regarding prevention of oral cancer	Administration of structured teaching program regarding identification of learning disabilities	Assessment of knowledge by using the same structured knowledge questionnaire regarding prevention of oral cancer

### One Group pre-test and post-test

**O1:** Administration of self-administered questionnaire to the adolescents on DAY 1.

**X:** Administration of structured teaching programme on prevention of oral cancer to the adolescents on DAY -1.

**O2:** Administration of Self-administered questionnaire to the adolescents on DAY-7 after administration of structured teaching programme (STP)

### Association between the demographic variables and pre-test knowledge of adolescents regarding prevention of oral cancer

**Table 1:** Association between demographic variables and the Knowledge of adolescents n=100

Variables	Below Median	Median and above	Chi square	Df	P value (0.05)	Inference
<b>1. Age in years</b>						
a. 15-16 years	36	12	7.973	2	5.99	S
b. 17-18 years	26	20				
c. 18 years & above	04	02				
<b>2. Gender</b>						
a. Male	32	21	8.175	1	3.84	S
b. Female	29	18				
<b>3. Religion</b>						
a. Hindu	35	21	2.424	3	7.82	NS
b. Muslim	17	07				
c. Christian	16	04				
d. Others	00	00				
<b>4. Educational status</b>						
a. 1 <sup>st</sup> PUC	39	12	2.799	1	3.84	NS
b. 2 <sup>nd</sup> PUC	36	13				
<b>5. Type of Family</b>						
a. Nuclear	49	21	4.315	2	5.99	NS
b. Joint	16	08				
c. Single Parent Family	02	01				
<b>Variables</b>						
<b>6. Place of residence</b>						
a. Home	40	07	3.921	3	7.82	NS
b. Hostel	13	10				
c. Paying Guest	08	04				
d. Relatives Home	06	12				
<b>7. Previous exposure to people with oral cancer</b>						
a. Yes	04	08	31.811	1	3.84	S
b. No	79	09				
<b>8. Frequency of oral checkup</b>						
a. Monthly once	00	00	5.830		7.82	NS
b. Once in six months	00	00				

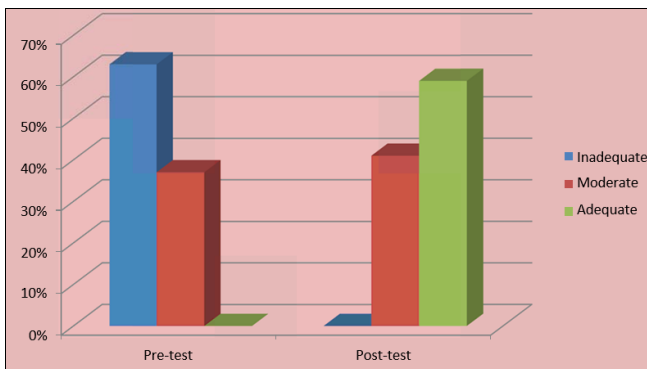
c. Once in a year	11	11		3		
d. Not done oral checkup	68	10				
<b>9. Source of information</b>						
a. Television	12	08	8.830	3	7.82	S
b. Teachers	10	06				
c. Parents	18	10				
d. Others	24	11				
<b>10. Family history of oral cancer</b>						
a. Yes	02	00	21.882	1	3.84	S
b. No	91	07				

The table 1 shows  $\chi^2$  value computed between the knowledge of adolescents regarding oral cancer and selected demographic variables. Variables such as age, gender, previous exposure to people with oral cancer, source of information, family history of oral cancer were significant at 0.05 level. Thus it can be inferred that there is significant association between knowledge of adolescents regarding oral cancer and selected variables. Therefore the hypothesis is accepted.

**To compare the significant differences between Pre-test & post-test knowledge score of adolescents regarding prevention of oral cancer**

**Table 2:** Distraction of differences between pretest & post test score n=100

Level of Knowledge	Pre test		Post test	
	Frequency	%	Frequency	%
Inadequate (<50%)	63	63	00	00
Moderate (50--75%)	37	37	41	41
Adequate (>75%)	00	00	59	59



**Fig 1:** Distribution of difference between pretest & post test score.

**Discussion**

The findings of study depicted a real evidence of significant difference between pre-test and post-test knowledge scores. The difference was statistically proved that paired “t” test (t calculated value pre-test and post-test knowledge) scores were significant at  $p < 0.05$ . So there is a significant difference between the pre and post-test knowledge score of adolescents regarding prevention of oral cancer, hence the hypotheses ( $H_1$ ) are accepted.

Association of post-test knowledge score with demographic variables was done using chi-square test. Present study showed that variables such as age, gender, previous exposure to people with oral cancer, source of information, family history of oral cancer were significant at 0.05 level. The variables like religion, educational status, type of family, place of residence and frequency of oral checkup were not significant at 0.05 level.

**Conclusion**

On the basis of the findings of the study “to assess the effectiveness of structured teaching programme on knowledge of adolescence boys regarding prevention of oral cancer in selected pre university colleges at Davangere” the below said conclusions were drawn. It brings out the limitation of the study in to practice. The implications are given on various aspects like prevention of oral cancer and also gives an insight to further studies.

**Recommendations**

On the basis of findings of the study the following recommendations were made.

A similar study can be replicated on a larger sample with different demographic characters.

An Experimental study can be under taken with control group.

A Study can be undertaken to find out the association between demographic variables and knowledge of adolescents regarding prevention of oral cancer.

A Similar study can be conducted using other strategies like SIM, booklets and pamphlets.

Teaching and demonstration regarding prevention of oral cancer can be given to the student adolescents in class teaching.

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