Assess the Knowledge on Oral Cancer among Attendant of Cancer Patients Attending Regional Cancer Center OPD at JIPMER Hospital, Puducherry

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Abstract
Introduction: The World Health Organization (WHO) defines Oral health as “a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases or disorders that affect the oral cavity”. Cancer of Oral cavity which may occur in any part of the mouth or throat. Oral cancer may occur on the lips or anywhere within mouth like tongue, floor of mouth, buccal mucosa, hard and soft palate.

Aim: To assess the level of knowledge on oral cancer among the attendant of cancer patients and associate the knowledge on oral cancer with demographic variables.

Results: This study included 297 patient attendants 61.6% of the study participants were males and 38.4 % of them were females who were attended RCC OPD. Among them 3 (1.01%) have excellent knowledge, 56 (18.85%) have very good knowledge, 109 (36.7%) have good knowledge, 102 (34.34%) have average knowledge and 27 (9.09%) have poor knowledge. 185 (62.3%) participants have the family history of cancer and 112 (37.7%) participants do not have any family history of cancer. This study also suggests 35 (11.8%) have the habit of smoking, 37 (12.5%) of them were alcoholic, 2 (0.7%) of them have the habit of smoking and tobacco chewing.

Conclusion: The study concludes that the knowledge on oral cancer is less among patient attendant and there were significant association between family history and personal habits.

Introduction
One word that is even more daunting than the death itself and eats up a person from the inside is Cancer. Every year, about 700,000 new cancer patients get registered with the National Cancer Registry Programme in India. This shows that cancer is one of the major health problems in India at present. Lung and Oral cancer are the most common types of cancers among men, whereas cervical and breast cancer among women in India. Oral squamous cell carcinoma is the 10th most common cancers worldwide and 6th most common in males. In general, chewing tobacco is one of the major reasons of cancer in India. Nearly 50% of all cancers in men and 20% in women are caused by chewing tobacco. At global
level, India has the highest number of oral cancer cases and about 75,000 to 80,000 new cases are added in the list every year.\(^{(3)}\)

**Aim**
To assess the level of knowledge on oral cancer among the attendant of cancer patients and associate the knowledge on oral cancer with demographic variables.

**Material and Methods**
A descriptive cross-sectional study was used to analyze the data and to test the hypothesis. The research design adopted for the present study was non-probability sampling technique. The instrument used for data collection consisted of two parts: a demographic proforma and structured interview schedule. Participants fulfilling eligibility criteria were assigned to non-experimental group. A questionnaire (APPENDIX 1) was used to assess the knowledge which was validated through the experts in the field of oncology and nursing. Data collection period for the study was 2 months. The study was conducted after getting written informed consent from the participants.

**Results**

**Age:** It reveals that among 297 participants 150 (50.5%) of them were in the age of 19-30 years, 65 (21.9%) of them were in the age group of 31-40 years, 52 (17.5%) of them were in the age group of 41-50 years, 13 (6%) of them were in the age group of > 50 years.

**Gender:** Among 297 participants 183 (61.6%) of them were males and 114 (38.4%) of them were females.

**Marital status:** Among 297 participants, 178 (62.7%) of them were married, 103 (30.95%) of them were single, 16 (6.95%) of them were widow/widower/divorced.

**Religion:** Among 297 participants, 244 (82.2%) of them were Hindu, 27 (9.1%) of them were Christians, 21 (7.1%) of them Muslims and 5 (1.7%) comes under the category of others.

**Educational status:** Among 297 participants, 33 (11.1%) of them were illiterate, 60 (20.2%) of them were primary, 115 (38.7%) of them were secondary, 89 (30%) of them were graduate.

**Occupation:** Among 297 participants, 54 (18.2%) of them were Farmers, 73 (24.6%) of them were labours, 95 (32%) of them were government/private employee and 75 (25.3%) of them were unemployed.

**Income:** Among 297 participants, 107 (36%) of them have a monthly family income of Rs.1000-2000, 72 (24.2%) of them have a monthly family income Rs.2001-3000, 53 (17.8%) of them have a monthly family income of Rs.3001-5000 and 65 (21.9%) of them have a monthly family income of > Rs. 5000.

**Domicile:** Among 297 participants, 171 (57.6%) of them were from rural and 126 (42.4%) of them were from urban.

**Family history:** Among 297 participants, 185 (62.3%) of them have the family history of cancer and 112 (37.7%) of them doesn’t have the family history of cancer.

**Personal habits:** Among 297 participants, 189 (63.6%) of them doesn’t have any bad habits, 35 (11.8%) of them have smoking habit, 37 (12.5%) of them have alcohol consumption, 29 (9.8%) of them have the habit of tobacco chewing, 5 (1.7%) of them have the habit of smoking and alcoholism, 2 (0.7%) of them have the habit of smoking & tobacco chewing.

**Source of health information:** Among 297 participants, 68 (22.9%) of them were getting the health information from newspapers, 160 (53.9%) of them getting information from television, 9 (3%) of them getting health information from radio and 60 (20.2%) from social health workers and friends.
Table 1: Distribution of respondents in relation to socio-demographic variables

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<tr>
<th>Variables</th>
<th>Category</th>
<th>Frequency</th>
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<td></td>
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<td>&gt; Rs. 5000</td>
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<td>Personal habits</td>
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<td>Friends /social health worker</td>
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Table 2: Distribution of level of knowledge on oral cancer among patient attendant attending in RCC OPD

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<th>Overall percentage</th>
<th>Participants</th>
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<tr>
<td>Poor &lt; 19 %</td>
<td>27</td>
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<tr>
<td>Average 20-39 %</td>
<td>102</td>
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<tr>
<td>Good 40-59 %</td>
<td>109</td>
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<tr>
<td>Very good 60-79 %</td>
<td>56</td>
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<tr>
<td>Excellent &gt; 80 %</td>
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Discussion
The study was descriptive in nature. A total 297 attendant of cancer patients were selected from RCC OPD at JIPMER by convenient sampling technique. After selection of samples, self-structured questionnaires were administered. The instrument consists of 2 parts: Socio-demographic variables and Multiple-choice questionnaires for assessing the knowledge on oral cancer the first objective was assessing the knowledge on oral cancer among the attendants of the cancer patients attending RCC OPD at JIPMER. The level of knowledge on oral cancer was assessed, out of 297 attendants, 27(9.09%) attendants had poor knowledge, 102 (34.34) attendants had average knowledge, 56 (18.85%) attendant had very good knowledge and 3 (1.01%) attendants had excellent knowledge. The mean value for the knowledge on oral cancer among the attendants was 8.29.

Moles DR et al (2011) conducted a meta-analysis measures for oral cancer and pre cancer studies in U.K. results The pooled weighted value of Sn from the seven studies was 0.796. From the SROC, the corresponding value of Sp at this level of Sn was 0.977 (95% CI 0.941, 0.991). When Sp was held at 0.977, the corresponding value of Sn from the SROC was 0.796 (95% CI 0.594, 0.912).

Greenwood M et al (2001) conducted a study to compare the knowledge of oral cancer and related issues of general dental and general medical practitioners. results The response rate was 68.1% for GDPs and 71.9% for GMPs. Dental practitioners were significantly more likely to have diagnosed cases of oral cancer than medical practitioners (OR = 2.68, 95% CI 1.6, 4.4). Important differences arose between the groups in terms of risk factor knowledge and clinical examination.

The second objective was to associate the knowledge on oral cancer with socio-demographic variables among the attendant of cancer patients attending RCC OPD at JIPMER. The association between the level of knowledge regarding oral cancer among attendants in regards of age, gender, marital status, educational status, occupation, domicile, family history of cancer, and source of health information, it has been identified that there is an association of knowledge with age, educational status, and source of health information with p value of 0.049, 0.00, 0.025 respectively, findings of present study mean 8.29 and standard deviation 3.413.

Conclusion
From this study, among 297 cancer patient attendants who participated in the study 109
(36.7%) have good knowledge, 102(34.34%) have average knowledge, 56(18.85%) have very good knowledge, 27(9.09%) have poor knowledge and 3 (1.01%) have excellent knowledge. It was found who had history of tobacco chewing, smoking habits and alcohol consumption was found poor knowledge about the causes of oral cancer. 185 (62.3%) participants have the family history of cancer. They are more prone to get cancer in future. The results were statistically significant.

Recommendation for further research

1) A study can be conducted among general public in different settings.
2) A study can be conducted to assess the knowledge of staff nurse to prevent oral cancer.
3) A comparative study can be conducted to assess the knowledge among urban and rural population.
4) A similar study can be conducted among college students other than health professional.
5) A study can be conducted to assess the knowledge of factory labours at various settings.

References

Appendix A
Socio Demographic Variables

Note: Please put a tick mark ( ) against appropriate answer

1. Age:
   a) 19-30 years
   b) 31-40 years
   c) 41 - 50 years
   d) > 51 years

2. Gender:
   a) Male
   b) Female
   c) others

3. Marital status:
   a) Married
   b) Single
   c) Divorced/ Widow/Widower

4. Religion:
   a) Hindu
   b) Christian
   c) Muslim
   d) Others

5. Educational status:
   a) Illiterate
   b) Primary
   c) Secondary
   d) Graduate

6. Occupation:
   a) Farmer
   b) Labour
   c) Government employee / Private employee
   d) Unemployed

7. Monthly income:
   a) Rs.1000-2000
   b) Rs.2001-3000
   c) Rs.3001-5000
   d) >Rs.5000

8. Domicile:
   a) Rural
   b) Urban

9. Family history of cancer:
   a) Yes
   b) No

10. Personal habits
    a) nil
    b) Smoking
    c) Alcoholism
    d) Tobacco products
    e) Smoking & alcoholism
    f) Smoking, alcoholism & tobacco products
    g) Smoking & tobacco products
    h) Alcoholism & tobacco products

11. Source of health information’s
    a) News paper
    b) Television
    c) Radio
    d) Social health worker/Friends
Questionnaires

Note: please put a tick mark ( ) against appropriate answers:

1. Cancer is ______
   a. Infectious disease
   b. Abnormal multiplication of cells
   c. Curse by God
   d. Don’t know

2. Oral cavity includes _________
   a. Lips
   b. Tongue
   c. Buccal mucosa
   d. All the above

3. Oral cancer is caused by _________
   a. Smoking
   b. Alcoholism
   c. Exposure to sun
   d. All the above

4. Oral cancer is common among_______
   a. Males
   b. Females
   c. Common for both males and females
   d. Children

5. The higher incidence of oral cancer is among ______
   a. Children
   b. Teenager
   c. Adult
   d. Older adult

6. In oral cavity which part is most commonly affected by cancer_______
   a. Lips
   b. Gums
   c. Tongue
   d. Buccal mucosa

7. The most common cause which is responsible for white patch in oral cavity is_______-
   a. Alcoholism
   b. Smoking & tobacco use
   c. Poor oral hygiene
   d. All the above

8. Most common cause for lip cancer is_____
   a. Exposure to sun
   b. Alcoholism
   c. Malnutrition
   d. Poor oral hygiene

9. Pre-cancerous lesions are_______
   a. White patches
   b. Red patches
   c. Both a & b
   d. White patches only

10. Early detection of oral cancer is by _________
    a. Regular dental check up
    b. Self-examination of oral cavity
    c. Blood testing
    d. A & b

11. Signs and symptoms of oral cancer includes all except________
    a. Bleeding in mouth
    b. Loose tooth
    c. Chronic sore throat
    d. Headache
12. The person should consult the doctors, if following symptoms persists_______
   a. Pain while swallowing
   b. Mouth sore
   c. Jaw and ear pain
   d. All the above

13. The cessation of smoking can reduce the risk of _____________
   a. Oral cancer
   b. Cancer lung
   c. Cancer larynx
   d. All the above

14. The following risk factors are preventable except______________
   a. Smoking & tobacco use
   b. Alcohol use
   c. Oral sex
   d. Genetic factors

15. Self-examination of mouth includes looking carefully at the ___________
   a. Roof of the mouth,
   b. Back of the throat
   c. Inside of the cheeks & lips
   d. All the above

16. Prevention of oral cancer includes all except____________
   a. Limit smoking & alcoholism
   b. Regular dental check up
   c. Antioxidant rich foods
   d. Junk foods

17. Oral cancer is not treated earlier can spread to ______________
   a. Lungs
   b. Bladder
   c. Kidney
   d. Skin

18. Vitamin A rich foods include all except________________
   a. Papaya
   b. Mango
   c. Green leafy vegetables
   d. Pulses

19. The food which is rich in Vitamin C are________________
   a. Capsicum
   b. Citrus fruits
   c. Broccoli & cauliflower
   d. All the above

20. Vitamin E rich food includes all except ____________
   a. Sunflower oil
   b. Nuts
   c. Shell fish
   d. Milk