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A Descriptive Study to Assess the Challenges faced by Post-Operative Oral Cancer Patients on Nutrition and Psychological Aspects at Selected Cancer Institute in Coimbatore

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ABSTRACT:
INTRODUCTION: Oral cancer is among the top three types of cancers in India. Malnutrition is common among patients who have oral carcinoma. Surgery remains the mainstay treatment for oral cancer, but post operative period is challenging for the patients in many aspects. Nutrition in one of the challenges faced due to the changes in the process of ingestion and patients face psychological issues due to disfigurement caused by Surgery and the prognosis. **METHODOLOGY:** Descriptive cross-sectional research design was used. 60 post-operative oral cancer patients at a selected Cancer Institute at Coimbatore, were selected by purposive sampling technique. Data was collected using 3 point Likert Scale on Challenges on Nutrition and Psychological aspects. The data was analyzed using descriptive and inferential statistics. Pender's Health Promotion Model was adopted. Booklet on self-care management during post-operative period was distributed. **FINDINGS:** The results showed that the majority of the patients belonged to 31-40 years, 13.3% and 8.3% of patients undergone Chemotherapy and Radiotherapy respectively after surgery, 6.7% had undergone tracheostomy, majority 39(65%) had cautious and 21(35%) had abundant challenges on Nutrition, majority 33(55%) had abundant and 27(45%) had cautious challenges on Psychological aspects, Highly significant positive correlation (r- value is 0.433, p=0.001) was found between Challenges on Nutrition and Psychological aspects. Demographic variables including age, gender, marital status, education level, monthly income, religion and habits: alcohol and Clinical variables including duration of illness, treatment modality: chemotherapy had shown statistically significant association with Nutrition and Psychological aspects (p<0.001). In addition habits: betel products and pan products and treatment modality: radiotherapy and having tracheostomy had shown significant association with Psychological aspects. **CONCLUSION:** It is fundamental to have complete understanding of the range of Nutritional difficulties and the Psychological obstacles patients experience. Present findings may aid the health care professionals to plan for potential approaches to improve Nutrition and lower Psychological risk factors.

KEYWORDS: Nutrition, Psychological Aspects, Oral Cancer Patients, Post-operative period, Post-operative challenges.

I. INTRODUCTION:

Oral cancer is among the top three types of cancers in India. Severe alcoholism, use of tobacco like cigarettes, smokeless tobacco and betel nut chewing and human papilloma virus are the most common risk factors for oral cancer. Oral cancer may also occur due to poor dental care and poor diet. (Varshitha, is shattered. They may believe that an obvious facial misconfiguration, such as a tongue or jaw resection, will cause them to be rejected or unwelcome in their social circles. After surgery, these patients may experience social withdrawal, depression, rage, and impotency, with some even regressing to infantile behavior. Some postoperative patients will develop a hyperawareness of their disfigurement, causing them to anticipate social stigmatization and even wear scarves or surgical masks to prevent drawing the attention of others. Patients may develop frustration in efforts to communicate with others because facial expression and speech are important to communication and social success but may be limited by their disfigurement. Patients in these situations may show apathy, bitterness, and quibbling toward society. This leads to the

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experience of social death, by which the patients withdraw from all forms of social interaction and support. (Jesus Amadeo Valdez,2018)

BACKGROUND OF THE STUDY

There are an estimated 657,000 new cases of cancers of the oral cavity and pharynx each year, and more than 330,000 deaths. Oral cancers include the main sub sites of lip, oral cavity, nasopharynx, and pharynx and have a particularly high burden in South Central Asia due to risk factor exposures. A comprehensive approach is needed for oral cancer to include health education and literacy, risk factor reduction and early diagnosis. In select regions with high incidence, oral cancer screening in high-risk individuals has been trialed. (WHO 2021)

In India, around 77,000 new cases and 52,000 deaths are reported annually, which is approximately one-fourth of global incidences. The increasing cases of oral cancer are the most important concern for community health as it is one of the common types of cancers in India. As compared to the west, the concern of oral cancer is significantly higher in India as about 70% of the cases are reported in the advanced stages. In India, epidemiologically, Kerala has the lowest incidence of oral cancer while West Bengal reports the highest. In the western regions of Maharashtra, the highest occurrence of oral malignancy is reported in the age group of 60 years, followed by between 40-59 years with a male female ratio of 2:1. (Vivek Borse,2020)

AIM OF THE STUDY

Identifying the nutritional needs and the development in psychological aspects of the oral cancer patients after their surgical treatment will assist in planning for nutritional and psychological guidance.

II. MATERIALS AND METHODS

RESEARCH SETTING

The study was conducted at Selected Cancer Institute, Coimbatore. The setting is selected based on acquaintance of the investigator with the institution, feasibility of conducting the study, availability of the sample, permission and proximity of the setting to investigation.

POPULATION

Population included in this study comprised of post-operative oral cancer patients.

SAMPLE

The study sample is the post-operative oral cancer patients at Coimbatore.

SAMPLE SIZE

The sample size was 60.

SAMPLING TECHNIQUE

In this study the investigator were used non-probability purposive sampling technique..

INCLUSION CRITERIA

- Pathologically diagnosed with oral cancer
- Post-operative oral cancer surgery patients above 18 years
- Patient undergone Composite Resection, Free flap, Glossectomy
- Post-operative oral cancer surgery patients one month after surgery
- Aware of the diagnosis
- Able to understand and answer the questionnaire on their own or with the explanation of investigators
- Involved voluntarily
- Patients undergone surgery under general anesthesia.

EXCLUSION CRITERIA

- Patients who are critically ill
- Patients with mental illness, disturbances in conscious mental processes, or communication barriers
- Patients who are in the period of palliative care
- Patients undergone debulking surgery under local (or) regional anesthesia

DESCRIPTION OF THE TOOL

The tool was developed following extensive review of literature, internet research and discussion with experts. The tool consisted of three sections on

Section A - Demographic and Clinical Variables

Section B - Likert scale for challenges Nutrition

Section- C - Likert scale for challenges on Psychological Aspects

Section A - Socio Demographic and clinical Variables

It consisted of Age, Gender, Marital aspects, Education level, Monthly Income, Religion and Habits: alcohol, betel products and pan products. Clinical variables it consisted of Duration of illness, Duration after surgery, Treatment Modality: chemotherapy, radiotherapy and Undergone tracheostomy

Section B -Likert scale for challenges on Nutrition

Total number of items included 15.

Section C - Likert scale for Psychological Aspects

Total number of items included 15.

Validity of the tool

The content validity of the tool was obtained by getting opinion from 5 experts 1 from

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medical officer, 1 from statistician and 3 from nursing experts in the field of medical surgical nursing. The validation was suggested with some specific modifications in the date collection tool. Valuable suggestions given by the experts were incorporated and the tool was modified and finalized.

Reliability of the tool

The reliability coefficient of the whole test was estimated by the software name Statistical Package for the Social Sciences (SPSS) version 25, cronbach's alpha reliability (r)which was found to be 0.89, 0.83in Likert scale for challenges on Nutrition and Likert scale for Psychological Aspects. The reliability test score shows there is a stability and consistency in the tool items. Hence the tool was considered highly reliable for proceeding with the main study.

DATA COLLECTION PROCEDURE

The formal permission obtained from the concerned authorities. The post -operative oral cancer patients was selected by using purposive sampling technique from the sample inclusive criteria. The researcher introduced himself and explains about the purposes of the study to the post -operative oral cancer surgery patients, obtained written consent from post -operative oral cancer surgery patients in post-operative unit. Data was collected using interview technique. Challenges on Nutrition and Psychological aspects were collected using 3 point Likert Scale. Each day 3 to 4 samples were selected, data was collected from 60 post -operative oral cancer patients, it took 15-20mins to collect data from every participants, from 14.02.2021 to 14.03.2021.

III. RESULT

DESCRIPTION OF SOCIO – DEMOGRAPHIC VARIABLES

In the present study, distribution of **Socio-Demographic variables** among post-operative oral cancer patients. Out of the 60 post-operative oral cancer patients who were interviewed, Majority of the post-operative oral cancer patients 24 (40%) of study population were in the age group between 31-40 years. Most of the patients were male 53 (88.3%). Majority of the patients were belongs to married 47 (78.3%). Most of the patients comes under SSLC 25 (41.7%) in education.Most of the cancer patients had family monthly income is 30 (50%) in less than Rupees 20000. Majority of the patients were belongs to Hindu religion 46 (76.7%). Most of the patients 53 (88.3%) were smoking habits. Majority of the patients 53 (88.3%) had alcohol habits. Most of the patients 40 (66.7%) had betel products habits. Majority of the patients 37 (61.7%) had pan products habits. **Clinical variables :** Majority of thepost-operative oral cancer patients 36 (60%) were belongs to more than 2 years in duration of illness. Most of the patients 46 (76.7%) were belongs to within 3 months in duration after surgery. The post-operative oral cancer patients8 (13.3%) had undergonechemotherapy treatment. The post-operative oral cancer patients 5 (8.3%) had undergone radiotherapy treatment. The post-operative oral cancer patients 4 (6.7%) had undergone tracheostomy.

ASSESSMENT OF THE LEVEL OF CHALLENGES ON NUTRITION AND PSYCHOLOGICAL ASPECTS OF THE POST -OPERATIVE ORAL CANCER PATIENTS.

Table I: Frequency and percentage distribution of level of Challenges on Nutrition of the Post -operative Oral Cancer Surgery patients.

Nutrition	Frequency (n)	Percentage (%)
Cautious challenges(16-30)	39	65
Abundant challenges(31-45)	21	35

The present study findings showed the Table I depicts majority of the patients 39 (65%) had cautious level of challenges on Nutrition and 21 (35%) had abundant level of challenges on Nutrition respectively and none had limited level of challenges on nutrition respectively.

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Table II: Frequency and percentage distribution of level of Challenges on Psychological aspects of the Post -operative Oral Cancer Patients.

Psychological aspects	Frequency (n)	Percentage (%)
Cautious challenges(16-30)	27	45
Abundant challenges(31-45)	33	55

Table II depicts majority of the patients 33 (55%) had abundant challenges on Psychological aspects and 27 (45%) had cautious level of challenges on Psychological aspects respectively and none had limited level of challenges on Psychological aspects.

CORRELATE THE CHALLENGES ON NUTRITION AND PSYCHOLOGICAL ASPECTS OF THE POST -OPERATIVE ORAL CANCER PATIENTS.

Table III: Correlate the challenges on nutrition and psychological aspects of the post -operative oral cancer surgery patients.

Variables	Mean	Standard deviaton	'r' value	'p' value
Nutrition	29.40	9.022	0.433	**0.001** HS**
Psychological aspects	37	8.628		

****-p < 0.001 highly significant**

The table III shows correlation between challenges on Nutrition and Psychological aspects of the post -operative oral cancer patients is (29.40±9.022) and (37±8.628). Correlation between challenges on Nutrition and Psychological aspects indicates the positive correlation and shows the results pearson correlation r- value is (0.433), p-value is (p=0.001) are statistically highly significant.

ASSOCIATION BETWEEN CHALLENGES ONNUTRITION OF THE POST -OPERATIVE ORAL CANCER PATIENTS WITH THEIR SELECTED DEMOGRAPHIC AND CLINICAL VARIABLES

***-p < 0.05 significant, **-p < 0.001 highly significant**

The current study shows that the demographic and clinical variable includingage, gender, marital aspects, education level, monthly income, religion and habits: alcohol and the Clinical variables including duration of illness, treatment modality: chemotherapy, radiotherapy and undergone tracheostomy had shown statistically significant Association between challenges on Nutrition with chi-square value of at $p<0.05$ level and $p<0.001$.

The clinical variables including Habits: betel products and pan products,treatment modality: radiotherapy, patients undergone tracheostomy had not shown statistically significant association between challenges on Nutrition respectively.

ASSOCIATION BETWEENCHALLENGES ON PSYCHOLOGICAL ASPECTS OF THE POST -OPERATIVE ORAL CANCER PATIENTS WITH THEIR SELECTED DEMOGRAPHIC AND CLINICAL VARIABLES.

***-p < 0.05 significant, *-p < 0.001 highly significant**

The current study shows that the demographic and clinical variable age, gender, marital aspects, education level, monthly income, religion and habits: alcohol, betel products and pan products. Clinical variables it consisted of duration of illness, treatment modality, chemotherapy, radiotherapy and undergone tracheostomy had shown statistically significant association between challenges on Psychological aspects of the post -

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operative oral cancer surgery patients with chi-square value of at $p<0.05$ level and $p<0.001$.The clinical variable duration after surgery had not shown statistically significant association between Psychological aspects of the post -operative oral cancer patients respectively.

IV. DISCUSSION

In the Present study findings revealed that, majority of the post -operative oral cancer surgery patients 39 (65%) had cautious challenges on Nutrition and 21 (35%) had abundant challenges on Nutrition respectively. This result was supported by Kumari (2019) in a cross-sectional study on evaluation of quality of life and the Nutritional status of oral cancer treated patients as compared with the control group in Varanasi district. The results showed that 67.74% were malnourished or at risk of malnutrition. Patients had worse problems among oral cancer group. There were highly statistically significant differences found in the oral health impact profile and oral impacts on daily performances on comparing the oral cancer patients with the control group. The study concluded that oral cancer patients with malnutrition or risk of malnutrition have significantly worse problems than with the control population group.

Present study findings revealed that, majority of the post -operative oral cancer surgery patients 33 (55%) had abundant challenges on Psychological aspects and 27 (45%) had cautious challenges on Psychological aspects respectively. This result was supported by, Varma et al. (2017)in a Cross-Sectional questionnaire based study on perceived levels of supportive care needs of the patients with Oral Cancer in a metropolitan city in Hyderabad, South India. The results showed that the perceived levels of patients care needs of various domains, in which majority of the patients (98.3%) agreed that they had Psychological and emotional issues followed by interpersonal communication needs, patients support needs, health information needs, and physical needs. The study concluded that Routine screening for Psychological and physical distress should become a first step in the assessment of the psychosocial needs of people receiving inpatients treatment for the cancer.

Present study findings revealed that, correlation between challenges on Nutrition and Psychological aspects of the post -operative oral cancer patients is (29.40±9.022) and (37±8.628). Correlation between Nutrition and Psychological aspects indicates the positive correlation and shows the results pearson correlation r- value is (0.433), p-value is ($p=0.001$) are statistically highly significant. A study by Matsuda Karino et al (2020)ona cross-sectional study on Relationship between the Functional Oral Intake Scale and the Self-Efficacy Scale among Cancer Patients in Japan. The results showed that statistically significant correlation between the low FOIS score and the SEAC subscales of Activities of Daily Living Self-efficacy and Symptom Coping Self-efficacy. The study concluded that self-efficacy played an important role in dysphagia and may affect the severity of dysphagia. The Hypothesis H_1 stated that there is a significant correlation between Nutrition and Psychological aspects of the post -operative oral cancer surgery patients. Hence the hypothesis H_1 is accepted.

Present study findings revealed that the demographic variables includingage, gender, marital aspects, education level, monthly income, religion and habits: alcohol, and Clinical variables including duration of illness, treatment modality: chemotherapy had shown statistically significant association between Nutrition of the post -operative oral cancer surgery patients with chi-square value of at $p<0.05$ level and $p<0.001$. The clinical variables includinghabits: betel products and pan products, treatment modality : radiotherapy, undergone tracheostomy had not shown statistically significant association between Nutrition of the post-operative oral cancer patients respectively. The demographic variables including age, gender, marital aspects, education level, monthly income, religion and habits: alcohol, betel products and pan products and Clinical variables including duration of illness, treatment modality: chemotherapy, radiotherapy and undergone tracheostomy had shown statistically significant association between challenges on Psychological aspects of the post -operative oral cancer patients with chi-square value of at $p<0.05$ level and $p<0.001$. The clinical variable duration after surgery had not shown statistically significant association between challenges on Psychological aspects of the post-operative oral cancer patients respectively. This result was supported by Niranjan & Ranpise, (2017)in a descriptive study on Evaluating the epidemiology and needs of oral cancer patients from Aurangabad district, Maharashtra, India. The results showed that Patients reported the need of acceptance by society and good diet and Nutrition. However, many denied the need of Psychological counseling and regular check-up. There was statistically significant association (p value <

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0.001) found among the gender and needs for good diet and Nutrition, Psychological counseling, regular check-up, discontinuation of tobacco habits. Statistically significant association (p value < 0.001) found among the occupation and needs for good diet and Nutrition, Psychological counseling and acceptance by society. The study concluded that epidemiology and focuses on the needs of the patients which require the specific attention and efforts through patients education and awareness. The Hypothesis H_2 stated that there is a significant association between the challenges on Nutrition and Psychological aspects of the post -operative oral cancer patients with their selected demographic and clinical variables. Hence the hypothesis H_2 is accepted.

NURSING IMPLICATIONS

The findings of study have scope in following area nursing education, nursing practice, nursing administration and research.

Nursing Education

- The findings of the study can be used by nurse educators to illustrate importance of care of the post -operative oral cancer patients.
- Student should be encouraged and prepared for their role as a health educator during their basic training.
- The nurse educator should help in bringing value and sense of responsibility to the student.
- The student should be brought about importance of care of the post -operative oral cancer surgery patients to Nutrition aspects and Psychological aspects.

Nursing Practice

- Nurse can perform Nutrition risk assessment of the patients they come across and provide mass awareness program to the post -operative oral cancer patients.
- Nurses can promote understanding of various risk factors involved Nutritionand Psychological aspects which in turn enhances the practice of healthy lifestyle.

Nursing Administration

- Nursing administrators plays an important role in nursing profession. Nursing administrator must involve themselves in policy making and budgeting for post -operative oral cancer patients.
- Nursing administration ensures that appropriate and current information is provided off to the nurses so that they are capable of educating the post -operative oral cancer patients to Nutrition and Psychological aspects.

Nursing Research

- The effectiveness of the study in the field of research can be verified by the nurses in practical field by considering the findings of the study and implementing the nursing intervention used in the study.
- The findings of the study serve as a base for the nursing professionals, mental health nurses and students to conduct further studies.
- The generalization of the study can be done by further replication of the study.
- This study helps the researchers to develop insight in the development of the teaching module and material for post -operative oral cancer patients to Nutrition and Psychological aspects.

V. CONCLUSION

The majority of post-operative oral cancer patients had a cautious level of challenges on Nutrition and abundant level of challenges on Psychological aspects, according to the study. These findings may aid in the Nutrition and Psychological aspects of oral cancer patients, as well as potential approaches to improve Nutrition and lower Psychological risk factors. It is the health-care system's obligation.

CONFLICT OF INTEREST

The authors have no conflicts of interest regarding this investigation.

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