A descriptive survey to assess the quality of life of oral cancer patients

Nirupama Roy¹ and Dr. Shabana Anjum²

¹Ph.D Nursing Scholar, M.P. Medical Science University, Jabalpur Institute of Health Sciences, Jabalpur, Madhya Pradesh, India
²Principal, Jabalpur Institute of Health Sciences, Jabalpur, Madhya Pradesh, India

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Abstract
Oral cancer is the second most common cancer in India. Early detection, better surgical treatment and timely chemotheraphy and radiotherapy treatment modalities can improve outcomes.

Aim: The aim of present study was to assess the quality of life of oral cancer patients. A descriptive survey design was adopted to collect the background information along with the quality of life from the 40 adult oral cancer patients attending the oncology units of a tertiary care hospital.

Method: Interview technique was used to collect both demographic data and Hindi version of FACT-H&T (version 4) scale was used for assessing the quality of life.

Results: In this study, majority of subjects (32.5%) belong to age group (31-40) years and (51 – 60) years, out of them, (85%) were man. Most of the respondents (27%) found to chew tobacco for maximum period of (11-15) years. The most affected domains were physical wellbeing {PWB subscale score (Mean = 8.35, SD=5.40)} and emotional wellbeing {EWB subscale score (Mean=10.15, SD=5.33)} of oral cancer patients. The average score of FACT-H&N total score, (quality of life) of oral cancer respondents between the range (50-95) was (65%).

Conclusion: Oral cancer patients often suffer from various degree of functional problems which affect their quality of life. Habits of tobacco and multiple habits were identified among the respondents. The awareness regarding habits of tobacco in any form can be more beneficial for the population of this area can reduce the incidence.

Keywords: Quality of life, FACT- H&T scale, PWB, EWB

Introduction
Cancer of the oral cavity is one of the most common cancers of the head and neck, and is one of the ten most common causes of death in the World [¹, ²]. According to estimates from the International Agency for Research on Cancer (IARC), in 2018 there were 17.0 million new cancer cases and 9.5 million cancer deaths worldwide. By 2040, the global burden is expected to grow to 27.5 million new cancer cases and 16.3 million cancer deaths simply due to the growth and aging of the population. The future burden will probably be even larger due to increasing prevalence of factors that increase risk, such as smoking, unhealthy diet, physical inactivity, and fewer childbirths, in economically transitioning countries [³]. As per The Global Cancer Observatory, March 2021 [²], Indian cancer statistic shows: Number of new cases in 2020, both sexes, all ages Total: 1 324 413, only for Lip, oral cavity 135 929 (10.3%). Oral cancer normally causes an important lack of quality of life (QL) in patients. After the diagnosis and treatment of a patient with oral cancer, the mostly values of the orofacial sphere affected are deglutition, mastication, salivation and speech skills. Patient's and family's social relationships can also be affected, prompting isolation and a loss of general cognitive, social, emotional or physical functions [⁴]. This will determine a decrease in general QL assessment and specific items that measure oral cavity and facial esthetic functionality [⁵].

Materials and Methods
The aim of the study was to determine the quality of life of oral cancer patients. Non-experimental descriptive survey approach was used to fulfill the purpose. The study was conducted on May 2022. Non probability purposive sampling technique used to collect relevant data. The data were collected from 40 adult oral cancer patients attending the oncology units of medical college hospital. A structure interview done to collect data on demographic profile and quality of life of oral cancer patients.

Results and Discussions
Section I: Distribution of subjects according to demographic variables
Table 1: Frequency percentage distribution of the subject characteristics in terms of age, gender, marital status and occupation (N=40)

| S. No. | Demographic Variable       | Frequency | Percentage |
|--------|----------------------------|-----------|------------|
| 1.     | Age in years               |           |            |
| 1.1    | 18-30 years                | 0         | 0.0        |
| 1.2    | 31-40 years                | 13        | 32.5       |
| 1.3    | 41-50 years                | 9         | 22.5       |
| 1.4    | 51-60 years                | 13        | 32.5       |
| 1.5    | 61 years and above         | 5         | 12.5       |
| 2.     | Gender                     |           |            |
| 2.1    | Male                       | 34        | 85.0       |
| 2.2    | Female                     | 6         | 15.0       |
| 2.3    | Other                      | 0         | 0.0        |
| 3.     | Marital status             |           |            |
| 3.1    | Married                    | 39        | 97.5       |
| 3.2    | Unmarried                  | 0         | 0.0        |
| 3.3    | Divorce                    | 0         | 0.0        |
| 3.4    | Widow / widower            | 1         | 2.5        |
| 4.     | Occupation                 |           |            |
| 4.1    | Service                    | 2         | 5.0        |
| 4.2    | Business                   | 3         | 7.5        |
| 4.3    | Retired                    | 0         | 0.0        |
| 4.4    | Housewife                  | 3         | 7.5        |
| 4.5    | Unemployed                 | 0         | 0.0        |
| 4.6    | Labour                     | 32        | 80.0       |

The above table showed majority of the subjects (32.5%) were in the age group 31-40 years and 51-60 years. Male predominance was seen in oral cancers with 34 (85%).

Table 2: Frequency percentage distribution of the sample characteristics in terms of education, monthly family income, religion, residence and type of family (N=40)

| S. No. | Demographic Variable         | Frequency | Percentage |
|--------|------------------------------|-----------|------------|
| 5.     | Education                    |           |            |
| 5.1    | Postgraduate and above       | 0         | 0.0        |
| 5.2    | Graduate / professional course| 0         | 0.0        |
| 5.3    | Intermediate or diploma      | 3         | 7.5        |
| 5.4    | High school certificate      | 9         | 22.5       |
| 5.5    | Middle school certificate    | 3         | 7.5        |
| 5.6    | Primary school certificate   | 14        | 35.0       |
| 5.7    | No formal schooling but literate | 3     | 7.5        |
| 5.8    | Illiterate                   | 8         | 20.0       |
| 6.     | Total monthly income of the family |           |            |
| 6.1    | Rs. < 5000                   | 27        | 67.5       |
| 6.2    | Rs. 5001 to Rs. 10000        | 9         | 22.5       |
| 6.3    | Rs. 10001 to Rs. 20000       | 1         | 2.5        |
| 6.4    | Rs. 20001 to Rs. 30000       | 3         | 7.5        |
| 6.5    | More than Rs. 30000          | 0         | 0.0        |
| 7.     | Religion                     |           |            |
| 7.1    | Hindu                        | 40        | 100.0      |
| 7.2    | Muslim                       | 0         | 0.0        |
| 7.3    | Christian                    | 0         | 0.0        |
| 7.4    | Other                        | 0         | 0.0        |
| 8.     | Residence                    |           |            |
| 8.1    | Rural                        | 22        | 55.0       |
| 8.2    | Urban                        | 18        | 45.0       |
| 8.3    | Urban slum                   | 0         | 0.0        |
| 9.     | Type of family               |           |            |
| 9.1    | Nuclear                      | 13        | 32.5       |
| 9.2    | Joint                        | 27        | 67.5       |
| 9.3    | Extended                     | 0         | 0.0        |
| 9.4    | Other                        | 0         | 0.0        |
The above data showed the major part 14(35%) of the respondents were poorly educated with primary level. Majority 27 (67.5%) of the subjects had a total monthly family income of less than Rs. 5000. All the subjects belonged to Hindu religion (100%). 22 (55%) subjects were from rural areas and 18 (45%) were from urban areas. Slightly higher prevalence of subjects from rural areas was seen in the present study. Most of the subjects 27 (67.5%) were from joint family.

### Table 3: Frequency percentage distribution of the subject characteristics in terms of type of family and habit

| S. No. | Demographic Variable          | Frequency | Percentage |
|--------|------------------------------|-----------|------------|
| 10.    | Habit                        |           |            |
| 10.1.  | Yes                          | 34        | 85.0       |
| 10.2.  | No                           | 6         | 15.0       |
| 11.    | If habit is yes, type of habit (N=34) |   |   |
| 11.1.  | Smoking                      | 14        | 41.2       |
| 11.2.  | Tobacco                      | 27        | 79.4       |
| 11.3.  | Alcohol                      | 8         | 23.5       |
| 11.4.  | Other                        | 0         | 0.0        |
| 12.    | If continuing, duration (N=34) |   |   |
| 12.1.  | 1-5 years                    | 2         | 5.9        |
| 12.2.  | 6-10 years                   | 6         | 17.6       |
| 12.3.  | 11-15 years                  | 14        | 41.2       |
| 12.4.  | >15 years                    | 12        | 35.3       |
| 13.    | If stopped, duration (N=34)  |           |            |
| 13.1.  | 1-6 months                   | 15        | 44.1       |
| 13.2.  | 7-12 months                  | 11        | 32.4       |
| 13.3.  | 13-18 months                 | 1         | 2.9        |
| 13.4.  | 19-24 months                 | 3         | 8.8        |
| 13.5.  | >24 months                   | 4         | 11.8       |

The data in above table showed out of 34 subjects with habits, 27 (79.4%) using tobacco and 14 (41.2%) were smoking as their most common habits. A large number 14 (41.2%) of the subjects were continuing their habits for 11-15 years. Out of which 15 (44.1%) subjects had stopped their habit since last 1-6 months.

**Section II:** Distribution of samples based on total quality of life scores

Data presented in the bar diagram showed the grading of FACT-H&N Trial Outcome Index (TOI) score indicating total score of (PWB+FWB+HNCS). Majority 20 (50%) subjects were in ‘average’ grade.
Data presented in the bar diagram showed the grading of FACT-G total score indicating total score of (PWB+SWB+EWB+FWB). Great part 22 (55%) subjects were in ‘average’ grade.

Data presented in the bar diagram showed the grading of FACT-H&N total score indicating total score of (PWB+SWB+EWB+FWB+HNCS). Most of 26 (65%) subjects scored average in total quality of life scale.

**Table 4:** Showing range possible and observed scores and mean ± standard deviation of PWB subscale, SWB subscale, EWB subscale, FWB subscale, HNCS subscale and FACT summary scores

| All combined           | Number of items | Range of scores | Baseline sample |
|------------------------|-----------------|-----------------|-----------------|
| FACT subscale          |                 |                 |                 |
| PWB Subscale Score     | 7               | 0-28            | 0-20            | 8.35  | 5.40 |
| SWB Subscale Score     | 7               | 0-28            | 7-26            | 17.20 | 4.23 |
| EWB Subscale Score     | 6               | 0-24            | 2-20            | 10.15 | 5.33 |
| FWB Subscale Score     | 7               | 0-28            | 2-26            | 11.73 | 5.75 |
| HNCS Subscale Score    | 10              | 0-40            | 4-27            | 16.33 | 5.93 |
| **Fact summary scores**|                 |                 |                 |
| FACT-H&N- Trial Outcome Index (TOI) | 24 | 0-96         | 12-69           | 36.40 | 14.15 |
| FACT-G Total Score     | 27              | 0-108           | 26-82           | 47.43 | 14.94 |
| FACT-H&N Total Score   | 37              | 0-148           | 36-105          | 63.75 | 19.31 |

The above table shows the range possible and observed and mean ± standard deviation of PWB subscale, SWB subscale, EWB subscale, FWB subscale, HNCS subscale and FACT summary scores.
The data predict that the average score of respondents for the domain physical wellbeing (PWB-8.35) and emotional wellbeing (EWB-10.15) were poor in compare to other domains.

**Conclusion**
Oral cancer patients often suffer from various degree of functional problems which affect their quality of life. Habits of tobacco and multiple habits were identified among the respondents. The awareness regarding bad habits of tobacco in any form can be more beneficial for the population of this area can reduce the incidence.

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