Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 32s (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

Assessment Of Quality Of Life Amongst Oral Cancer Patients: A Prospective Questionnaire Based Study

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Cite this paper as: Dr Ibtisam Sahin , Dr Hemant Mehra , Dr Sapna Tandon , Dr Himanshu Chauhan, Dr Gaurav Singh, Dr Aakash Kumar, (2025) Assessment Of Quality Of Life Amongst Oral Cancer Patients: A Prospective Questionnaire Based Study. *Journal of Neonatal Surgery*, 14 (32s), 7033-7043.

ABSTRACT

Introduction: Oral cancers are one of the most prevalent cancers worldwide, with significant health implications. The management of oral cancer often involves a combination of surgery, radiotherapy, and chemoradiotherapy, which while life-saving can lead to profound consequences on patient's physical, psychological & social wellbeing.

Aim: To Evaluate QOL in oral cancer patients & assess the variables predicting the difficulty in mastication, swallowing and salivation after treatment, like surgical resection and chemoradiotherapy.

Method: A total of 82 patients were recorded qualifying the inclusion criteria of Biopsy proven Oral squamous cell carcinoma, Clinical TNM stage III & IV, No evidence of distant metastasis, No history of recurrence of cancer, and who would be Reconstructed at the time of surgical resection with distant flap. set of questionnaire comprises of data regarding quality of life

Results: The progression of patients' quality of life (QOL) was evaluated across three visits during the treatment period, revealing significant improvements over time. At the initial assessment, none of the patients reported a "Good" QOL. The majority were categorized as having a "Satisfactory" QOL. Notably, the "Satisfactory" and "Poor" QOL categories were entirely eliminated, indicating a universal enhancement in patients' well-being.

Conclusion: Quality of life is a concept that has become increasingly important in relation to patient outcomes following treatment for cancer.. The present analysis of patient-reported QOL outcomes may help guide treatment decisions for patients with OSCC based on accurate expectations of adverse effects of cancer treatment..

Keywords: *chemoradiotherapy; mastication; oral cancer; saliva; swallowing; quality of life.*

1. INTRODUCTION

Oral cancers are one of the most prevalent cancers worldwide, with significant health implications. Cancers of head and neck are a group of malignant neoplasms, which are grouped due to similarities in spreading pattern, treatment and their staging. A high incidence of these cancers are observed in India; it is the most common cancer in males and 3rd commonest in females[2]. This malignancy primarily affects oral cavity, including lips, tongue, and the floor of the mouth, and is often diagnosed at advanced stages.

Traditional perils such as use of tobacco, consumption of alcohol, and HPV infection are well-established; emerging risk factors continuing to be explored. Despite advances in surgical techniques, radiation therapy, and chemotherapy, oral cancer patients face a significant burden of disease due to the impact of treatment modalities and the functional and aesthetic deficits that can arise following treatment. Issues to ponder about are speech, swallowing, chewing, oral rehabilitation, nutrition, and appearance[3]. The mouth is the chief organ for the function of speech, and retention of dental prosthesis and is important in the prevention of infection and caries. Major surgery in these regions can be aesthetically disfiguring, even with reconstructive procedure. Both, these functional and aesthetic problem can significantly impair of patient's life quality.

The management of oral cancer often involves a combination of surgery, radiotherapy, and chemotherapy, which while life-saving can lead to profound consequences on patient's physical, psychological & social wellbeing. Quality of life is a multidimensional concept which includes physical, emotional, and social domains, and its assessment in cancer patients has become an essential part of clinical practice.

The assessment of the above in oral cancer patients is critical for identifying areas which are mostly affected by the disease and treatment, enabling healthcare providers to better address these issues through multidisciplinary care. The present study keeps an aim to assess the quality of life in oral cancer candidate through a prospective, questionnaire based approach, by gathering data on the physical emotional, and social domains, and its assessment in cancer patients has become an essential part of clinical practice.

The assessment of the above in oral cancer patients is critical for identifying the areas which are mostly affected by the disease and the treatment, enabling healthcare providers to better address these issues through multidisciplinary care.

The present study keeps an aim to assess the quality of life in oral cancer candidate through a prospective, questionnaire based approach, by gathering data on the physical aspect, emotional aspect, and social impacts for oral cancer, this research seeks to provide insights into the point challenges faced by these patients and to inform future therapeutic strategies that prioritize both survival and QoL.

2. METHODOLOGY:

The Aim of this study to investigate the quality of life of oral cancer undergoing surgical resection and reconstruction followed by chemoradiotherapy/radiotherapy with the

objectives to evaluate QOL in oral cancer patients, assess the variables predicting the difficulty in chewing, swallowing and salivation after treatment, understand the acceptance of the questionnaire by the patients and to make them aware of the important factors affecting quality of life

This prospective study was conceived in department of oral and maxillofacial surgery, Saraswati Dental College & hospital, Lucknow in collaboration with Kalyan Singh Superspeciality Cancer Institute (KSSSCI), after clearance of institutional human ethics committee(IHEC) & institutional research & development committee(IRDC) with the reference number: SDC&H/IRDC/2022/MDS/26

study demanded a large sample size of patients with oral squamous cell carcinoma, the study was executed in KSSSCI. This assessment is a 'survey-based' study started after its approval from IHEC & IRDC. A total of 82 patients were selected according to the inclusion & exclusion criteria. The patients in KSSSCI undergo biopsy procedure to confirm it as a biopsy proven . we selected the patient according to our inclusion criteria of clinical TNM stage III & 1V, without distant metastasis, negative history of recurrence, reconstruction at the time of surgical resection with distant flap; after the surgical procedure the patient was admitted for 7-10 days and was discharged once he/she was fit for discharge. The patient was kept on follow-up for once in 5 days for initial one month and weekly once thereafter. Written & informed consent was obtained for the participation in the study, was obtained from patients in order to measure patient QOL .The customized questionnaire was circulated in each step. For all the patients clinical information was obtained from the medical history, physical examination, radiology reports, and medical record found in Kalyan Singh Super Speciality Cancer Institute, Lucknow. The response was recorded in 3 visits.

Visit 1: on the day of suture removal, post-surgical resection, i.e 15 days

Visit 2: post-chemoradiotherapy/ radiotherapy

Visit 3: 6 months post treatment.(equivalent to 3-4 months post radiation or chemotherapy)

In the set of questionnaire, which comprises of socio-demographic data and question of primary concern regarding quality of life, there are 11 questions with 4 options each. Each questions carrying 4 options will be given the score of 25,50,75,100. The total scores are recorded and the patients are classified according to the total score. The total scores will be evaluated in all the 3 visits/steps, and we can evaluate the quality of life which has had positive or negative impact over time.

3. CLASSIFICATION

QOL	SCORE RANGE
1)POOR QUALITY OF LIFE	275-550
2)SATISFACTORY QUALITY OF LIFE	551-825
3)GOOD QUALITY OF LIFE	826-1100

Table_1

PARAMETERS	QUESTION NUMBER
1)PHYSICAL WELL-BEING	1,2,3
2)FUNCTIONAL WELL-BEING	4,5,6,7
3)PSYCHOLOGICAL WELL-BEING	8,9
4)SOCIAL WELL-BEING	10,11

Table_2

1)ARE YOU ABLE TO PERFORM YOUR DAY TO DAY HOUSEHOLD CHORES?	
A) I AM AS ACTIVE AS I HAVE EVER BEEN .	100
B) ABLE TO PERFORM MOST OF THE CHORES.	75
C) ABLE TO PERFORM ONLY FEW CHORES.	50
D) UNABLE TO PERFORM BASIC CHORES.	25
2)ARE YOU ABLE TO BRUSH YOUR TEETH AND CLEANSE YOUR MOUTH LIKE YOU USED TO DO BEFORE CANCER SURGERY?	
A) YES,WITHOUT DIFFICULTY	100
B) YES, WITH SOME DIFFICULTY	75
C) UNABLE TO BRUSH PROPERLY,ONLY CAN RINSE	50
D) UNABLE TO PERFORM BRUSHING AND RINSING	25
3) ARE YOU ABLE TO MEET YOUR FAMILY NEEDS POST TREATMENT?	
A) SAME AS BEFORE CANCER	100
B) CAN PROVIDE FOR THE BASIC AMMENITIES AND FULFIL OTHER REQUIREMENTS AS WELL	75
C) CAN ONLY PROVIDE FOR BASIC AMMENITIES	50
D) UNABLE TO PROVIDE FOR THE BASIC AMMENITIES	25
4) DO YOU FEEL DRYNESS IN YOUR MOUTH POST TREATMENT ?	
A) NO, I DON'T FEEL ANY DRYNESS IN MY MOUTH	100

B) I HAVE LESS SALIVA THAN NORMAL,BUT ITS ENOUGH	75
C) I HAVE TOO LITTLE SALIVA	50
D)I HAVE NO SALIVA	25

TABLE-3

5) ARE YOU ABLE TO CHEW FOOD AFTER CANCER SURGERY?	
A)I AM ABLE TO CHEW SOLID FOOD PROPERLY	100
B) I AM UNABLE TO CHEW SOLID FOOD PROPERLY	75
C) I CAN CHEW SEMI SOLID FOOD ONLY	50
D) I AM UNABLE TO CHEW, HENCE I TAKE FOOD IN LIQUID FORM	25
6) HAS YOUR SHOULDER/NECK ACTIVITY BEEN AFFECTED AFTER YOUR CANCER SURGERY?	
A)IT IS AS GOOD AS BEFORE	100
B) MILD PAIN AND STIFFNESS IN MY SHOULDER/NECK IS PRESENT BUT HAS NOT AFFECTED MY STRENGTH	75
C) PAIN AND WEAKNESS IN MY SHOULDER/NECK HAS CAUSED ME TO CEASE/CHANGE MY ACTIVITY	50
D)I CANNOT WORK DUE TO THE PROBLEMS WITH MY SHOULDER/NECK.	25

TABLE-4

7) HAS YOUR MOUTH OPENING BEEN AFFECTED AFTER THE SURGERY?	
A)I AM ABLE TO OPEN MY MOUTH AS BEFORE	100
B)MY MOUTH OPENING HAS BEEN SEVERELY AFFECTED,BUT DOES NOT AFFECT MY DAILY ACTIVITIES.	75
C)MY MOUTH OPENING HAS BEEN CONSIDERABLY REDUCED, AND AFFECTS MY DAILY ACTIVITIES.	50
D) MY MOUTH OPENING IS SEVERELY REDUCED, AND HAS AFFECTED MY DAILY ACTIVITIES.	25
8) HOW DO YOU PSYCHOLOGICALLY FEEL AFTER CANCER SURGERY?	
A)I FEEL GOOD PSYCHOLOGICALLY	100
B)MY PSYCHOLOGY HAS BEEN SOMEWHAT AFFECTED, BUT I DON'T FEEL DEPRESSED.	75
C)I FEEL SOMEWHAT DEPRESSED	50
D) I FEEL EXTREMELY DEPRESSED	25

TABLE-5

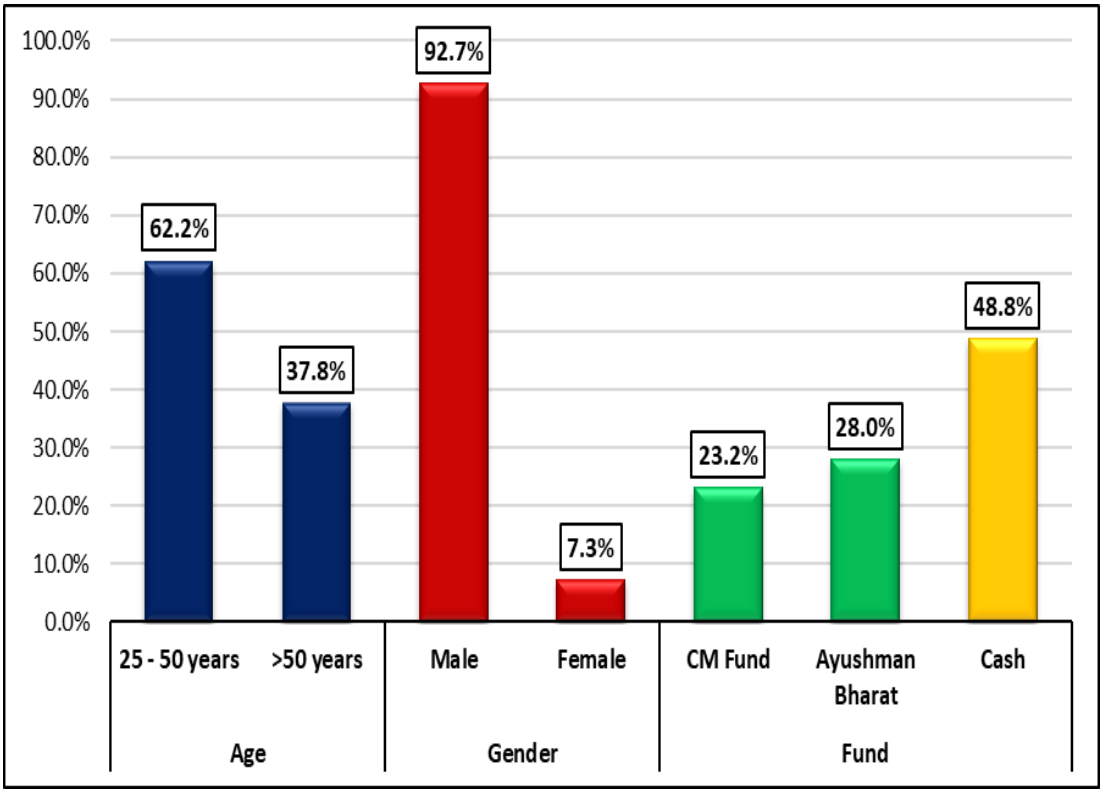
9) DO YOU GET SOUND SLEEP POST-TREATMENT?	
A) PROPER SLEEP FOR 7-8 HRS AT STRETCH	100

B) SLEEPING NOT MORE THAN 4-5 HRS AT STRETCH	75
C)HAVING DISTURBED SLEEP	50
D) UNABLE TO SLEEP PROPERLY THE WHOLE NIGHT	25
10) HOW DO YOU COMMUNICATE WITH YOUR FRIENDS AND FAMILY AFTER CANCER SURGERY?	
A) I CAN SPEAK PROPERLY	100
B)I FEEL DIFFICULTY IN SPEAKING, ONLY FEW WORDS	75
C) I FEEL DIFFICULT TO SPEAK MOST OF THE WORDS	50
D) I AM ABLE TO COMMUNICATE ONLY THROUGH WRITING/GESTURES	25
11) WHENEVER YOU GO OUT, WHAT IS THE PURPOSE OF YOU GOI GOING OUT OF YOUR HOUSE?	
A) I AM ABLE TO PERFORM ALL MY OUTDOOR ACTIVITIES	100
B)I AM ONLY ABLE TO GO FOR A WALK AND MEET FRIENDS	75
C) I AM ONLY ABLE TO GO FOR MY DOCTOR'S APPOINTMENT.	50
D) I AM UNABLE TO PERFORM ANY OUTDOOR ACTIVITIES.	25

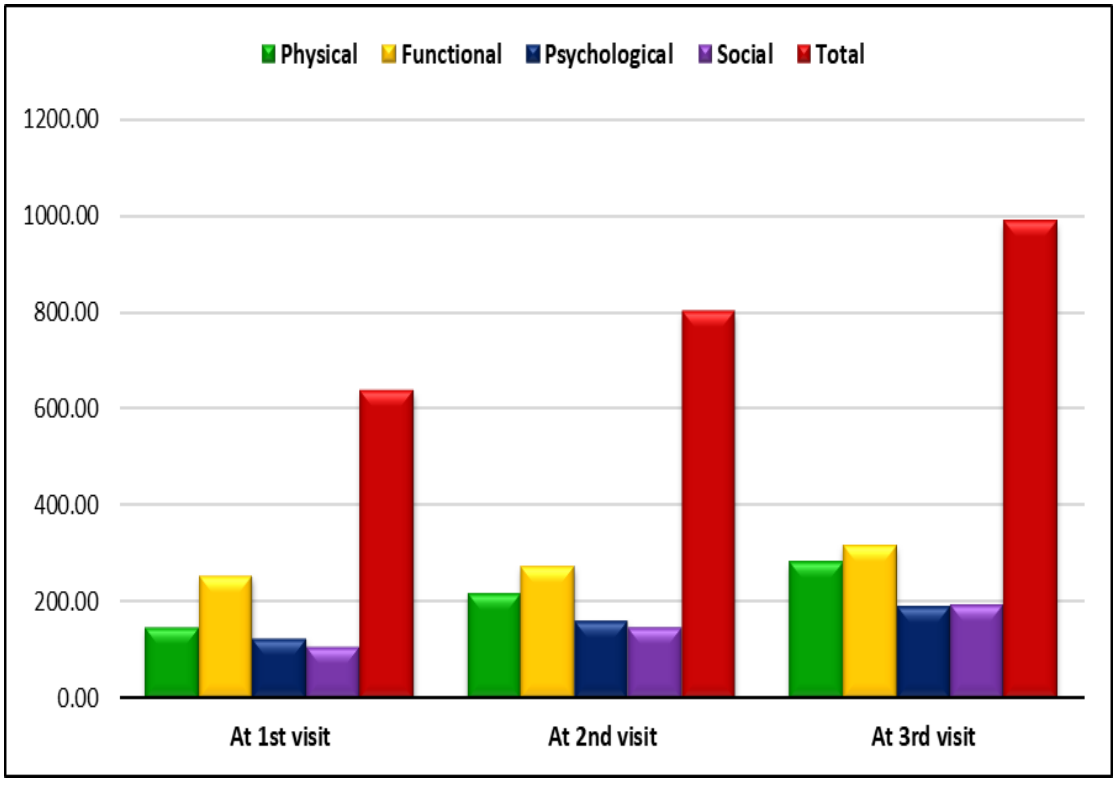
TABLE-6

4. RESULTS:

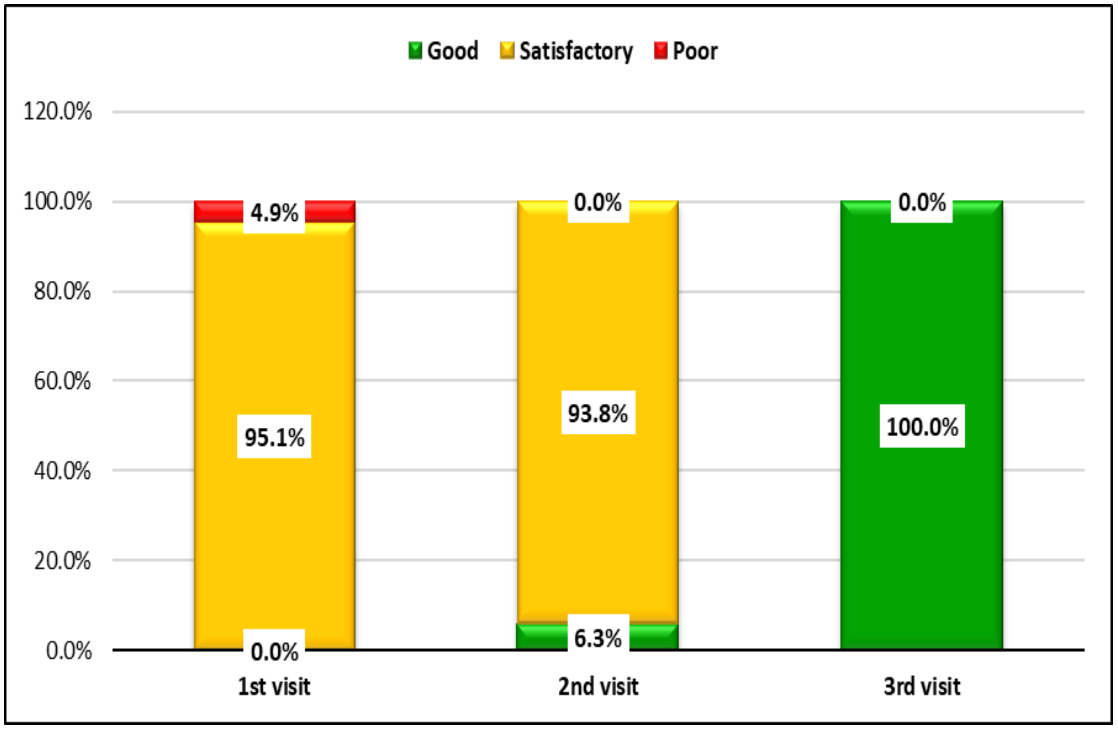
The distribution of oral cancer cases was analyzed based on various demographic variables, including age, gender, and mode of treatment funding. The age of patients ranged broadly, with a mean age of 46.95 years. A majority of the cases (62.2%) were observed in individuals aged 25 to 50 years, whereas 37.8% of the cases were seen in those above 50 years of age. striking disparity was observed in gender distribution, with males constituting 92.7% of the cases and females accounting for only 7.3%. significant male predominance underscores the potential role of gender-specific risk factors, such as tobacco and alcohol use. Nearly half of the cases (48.8%) relied on ayushman bharat scheme for their treatment expenses. These figures emphasize the importance of financial assistance schemes in reducing the economic burden associated with oral cancer treatment. The mean physical, functional, psychological, social domain improved over time. The mean physical domain score improved from 148.46 at the first visit to 217.50 at the second visit, further to 281.88 at the third visit. Functional scores increased steadily from 254.32 at the first visit to 275.31 at the second visit, reaching 317.19 by the third visit. : Psychological well-being scores rose from 125.00 initially to 161.25 at the second visit and 193.13 at the third visit. At the initial assessment, none of the patients reported a "Good" QOL. The majority (95.1%) were categorized as having a "Satisfactory" QOL, while a small proportion (4.9%) reported "Poor" QOL. By the second visit, there was a noticeable shift in QOL levels. A small percentage (6.3%) of patients reported "Good" QOL, marking an improvement from the first visit ($p=0.010$). The third visit marked a remarkable transformation, with 100% of the patients reporting "Good" QOL. The improvement was highly significant compared to the baseline ($p<0.001$). Both age groups showed a significant increase in all domain scores during the treatment period ($p < 0.001$). The QOL scores across physical, functional, psychological, and social domains, as well as the overall QOL scores, showed significant improvements during the treatment period for both males and females. For males, The physical domain scores showed significant improvement from a mean of 148.00 at the first visit to 282.09 at the third visit ($p < 0.001$); Functional scores improved significantly from 254.67 at the first visit to 317.91 at the third visit ($p < 0.001$). Psychological scores increased significantly from 125.33 at the first visit to 193.24 at the third visit ($p < 0.001$). Social domain scores improved significantly from 108.67 at the first visit to 196.62 at the third visit ($p < 0.001$), The overall QOL score improved significantly from 637.30 at the first visit to 990.00 at the third visit ($p < 0.001$); for females, in physical domain, scores increased significantly from 154.17 to 279.17 ($p < 0.001$), functional Scores increased from 250.00 to 308.33 ($p = 0.002$); psychological Scores also improved significantly from 120.83 to 191.67 ($p = 0.002$). social Scores increased significantly from 108.33 to 187.50 ($p < 0.001$); overall QOL Scores increased from 633.30 to 967.00 ($p < 0.001$).



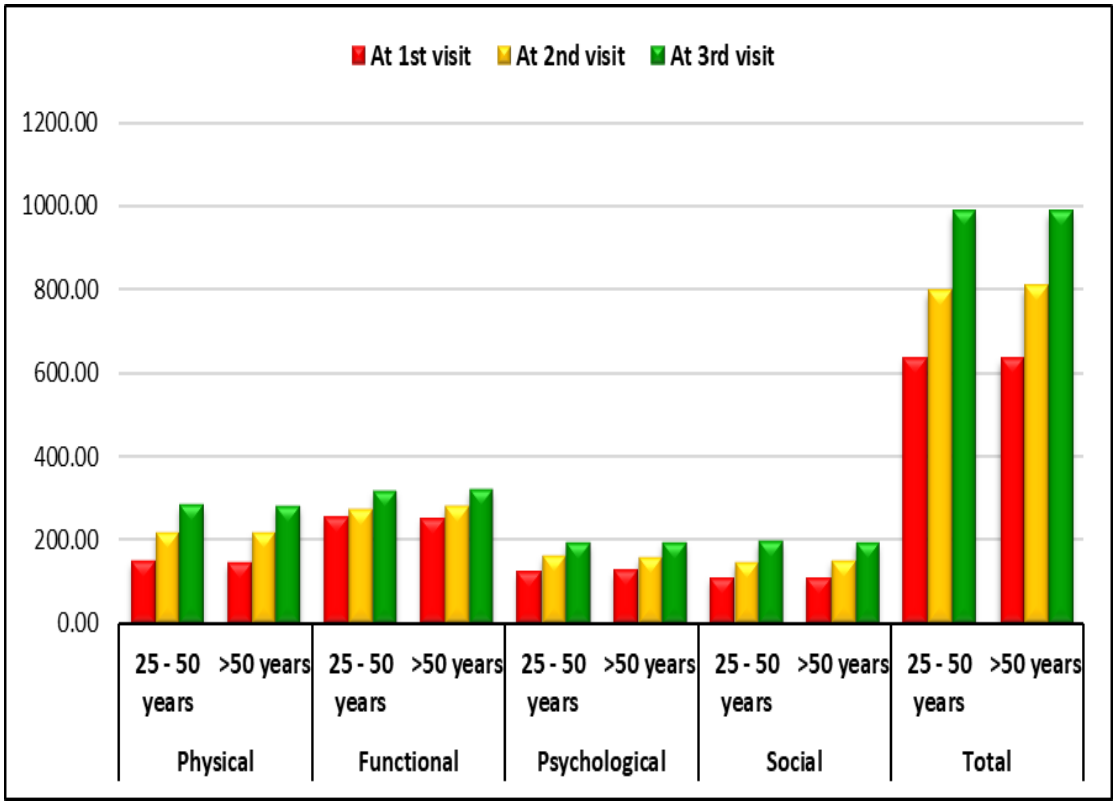
Graph 1: Distribution of Oral Cancer Cases According to Demographic Variables



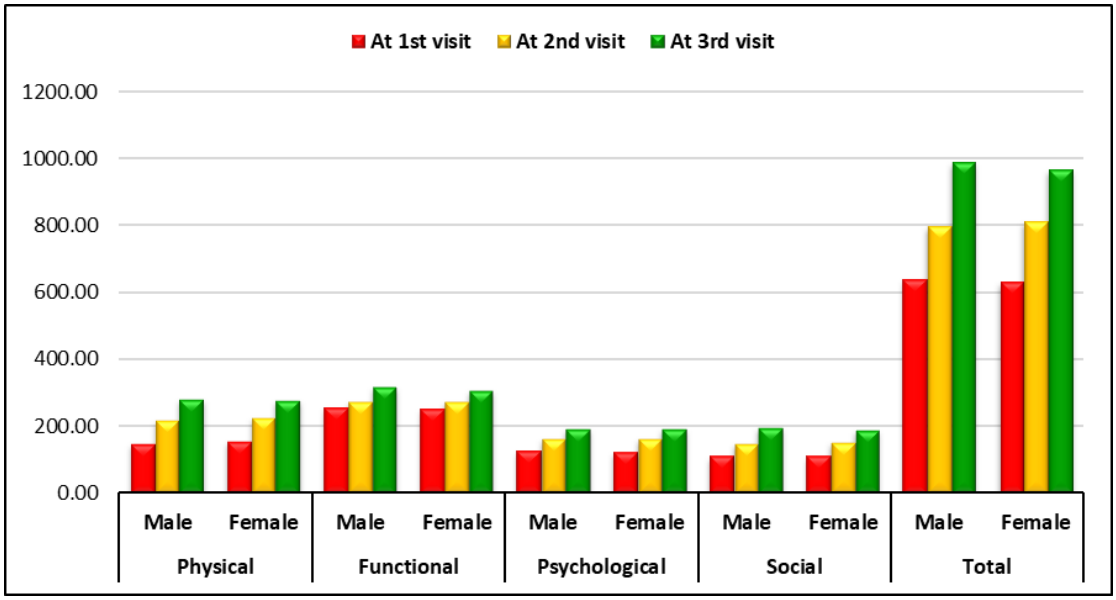
Graph 2: Domain wise and Overall Changes in QOL Scores During the Treatment Period



Graph 3: Overall Changes in QOL Level During the Treatment Period



Graph 4: Domain wise and Overall Changes in QOL Scores During the Treatment Period According to Age Groups



Graph 5: Domain wise and Overall Changes in QOL Scores During The Treatment Period According to Gender

5. DISCUSSION

Oral squamous cell carcinoma (OSCC) is a malignancy that originates from the epithelial cells of the oral cavity. It accounts for more than 90% of oral cancers globally and represents a significant health concern due to its morbidity, mortality, and the impact on patients' quality of life (QoL).OSCC primarily affects the tongue, lips, buccal mucosa, floor of the mouth, and palate. Not only talking about India, but qualitative impact in the treatment of cancer often goes un-noticed, in all developing countries. Therefore, patients are sometimes unaware of the fact about their quality of life that will be the outcome of such complex surgeries and reconstruction procedure.

In this study out of 82 patients, there were 76 males(92.7%) and only 6 females(7.3%), A striking disparity was observed in gender distribution, with males constituting 92.7% of the cases and females accounting for only 7.3%. This significant male predominance underscores the potential role of gender-specific risk factors, such as tobacco and alcohol use, in the development of oral cancer. This study was coherent with study by G kiran kumar[42.] (2019) where, out of 630 patients 438 were males and remaining were females. The patients' ages varied widely, with an average age of 46.95 years (±10.90). Most cases (62.2%) were found in individuals aged 25 to 50 years, while 37.8% were observed in those older than 50. This indicates that oral cancer primarily affects younger to middle-aged individuals, which is coherent with the study by Mahendra Pratap singh[41] (2016)with mean (±SD) 48.35 ± 13.07 years. Public healthcare schemes provided substantial support, with 48.8% of the patients availing themselves of the Ayushman Bharat program and 28.0% utilizing the Chief Minister's (CM) Fund. These figures emphasize the importance of financial assistance schemes in reducing the economic burden associated with oral cancer treatment. This helps in elaborating the psychological status; patients who were on cash usually were always worried and anxious about their treatment and outcomes because it was a financial constraint for them. People who were on CM funds or ayushman bharat scheme seemed more content and happier since they had less expenses. *The physical domain* is seen improving significantly,

the questions put under the physical domains were unlikely from the questions of standard questionnaires, but grossly which was coherent with the study of Nemeth D[1] 2017. *Psychological well-being* scores, The improvement was significant ($p<0.001$), demonstrating a positive psychological impact during treatment. *Social interaction* and support showed remarkable progress. , significant improvements were observed in all QOL domains and the overall score during the treatment period, emphasizing the positive impact of the interventions on patients' physical, functional, psychological, and social well-being.

For *physical domain*, Both age groups, showed significant increase which was statistically significant.

Significant improvements were observed in *functional domain* scores for both age groups ($p < 0.001$). Both age groups experienced significant *psychological* improvements ($p < 0.001$). but, There were no significant differences between age groups at any time point ($p > 0.05$).

Significant increases in *social domain* scores were observed for both groups ($p < 0.001$. While no significant differences were observed between groups at the first and third visits, a marginal trend was seen at the second visit ($p = 0.075$).

Both groups demonstrated significant *overall QOL* improvements ($p < 0.001$).

No significant differences were found between both groups at any visit ($p > 0.05$).

Both age groups experienced substantial improvements in QOL scores across all domains during the treatment period. While the functional domain showed a significant difference at the second visit, other domains and overall scores were comparable between the two age groups, suggesting the treatment was equally effective across ages.

For both the genders, the physical domain scores showed significant improvement from first visit to the third visit which was statistically significant. No significant differences were observed between both groups at the first or third visits ($p > 0.05$),which is in coherent to the study by Markovic MM[43] (2024) ($P>0.05$) for questions like: 'felt ill'.

The *functional scores* showed significant improvement from first visit to the third visit which was statistically significant. No significant differences were observed at any visit ($p > 0.05$). males have increased value at 3rd visit, reasonably because of their willpower to recover. One of the predictors from our study "shoulder function" shows positive results because all the cases of surgical resesection and reconstruction was done by preserving spinal accessory nerve and by following proper exercise the patients have good shoulder function which is not coherent with Gerban Van[44] (2022), but was coherent with Lee [46] (2009). the *psychological scores* showed significant improvement from first visit to the third visit which was statistically significant. No significant differences were observed between the two groups($p > 0.05$), the patient have evolved with time, they are 'content with life', this is why their ability to get undisturbed sleep, is improving with time. They are realizing the fact that they are true survivors and hence they are positive about their moods which is coherent with Nemeth[1].

the *social scores* showed significant improvement from first visit to the third visit which was statistically significant. No significant differences were observed between the groups at the first or second visits ($p > 0.05$). However, at the third visit, males had significantly higher scores than females ($p = 0.020$). this is coherent to women feeling more pronounced symptoms as social eating($p=0.009$) & social contact ($p=0.002$) according to Markovik MM[43].

The changes in QOL from the first to subsequent visits were statistically significant:

At the initial assessment, none of the patients reported a "Good" QOL. The majority (95.1%) were categorized as having a "Satisfactory" QOL, while a small proportion (4.9%) reported "Poor" QOL. This baseline data highlights the impact of the condition on patients' well-being at the start of treatment.

By the second visit, there was a noticeable shift in QOL levels. A small percentage (6.3%) of patients reported "Good" QOL, marking an improvement from the first visit ($p=0.010$). Most patients (93.8%) still fell under the "Satisfactory" category, and none reported "Poor" QOL at this stage.

The third visit marked a remarkable transformation, with 100% of the patients reporting "Good" QOL. The improvement was highly significant compared to the baseline ($p<0.001$). Notably, the "Satisfactory" and "Poor" QOL categories were entirely eliminated, indicating a universal enhancement in patients' well-being. There were two cases of death after their 1st data collection, due to irregularity in radiotherapy which caused the reoccurrence . the remaining people have shown significant improvement in their life. They have come out as warriors defying all faults, with correct attitude towards the treatment of the disease they have survived. Since the study was not done in a longer time span we could only see positive outcomes, despite other studies with longer time periods might give us correct prediction.

6. CONCLUSION:

Quality of life is a concept that has become increasingly important in relation to patient outcomes following treatment for cancer. Nevertheless, it is a concept that is difficult to define and measure because it is broad and individual to each person. The patient might find it difficult to cope and, if cured, may become less satisfied with the residual level of dysfunction. The appreciation and promotion of coping strategies is an important facet of optimizing HRQOL, as at times there is very little to be done to improve a handicap following such surgery. Family and carer support is vital. Teeth are important for the appearance of a smile, as well as chewing, and optimal dental care is essential for both dentate and edentulous patients. It is recognized that there is a deterioration in masticatory efficiencies following treatment of oral cancer. there can be overt alteration in body structure, loss of function and its implications for social interaction have been associated with depression. Any additional burden of communication difficulties and social rejection greatly confounds the problems experienced. Several studies over the years have reported a high incidence of psychological distress in this patient population. Anxiety is at its highest before treatment, and both anxiety and depression tend to improve from this baseline. With better function, the patient perceives fewer consequences as a result of cancer and this leads to better acceptance of the situation and QOL. There are many aspects to oral rehabilitation which by necessity are beyond the scope of this chapter; however, there are notable positive effects on eating, Personality is a predictor of HRQOL in HNC patients. It has been suggested that before treatment, optimists report better role, cognitive and emotional function, less pain and fatigue and a better global rating of HRQOL than did pessimists. Speech is a key HRQOL domain in HNC. As a functional issue, it is repeatedly cited as one of the most important aspects by patients. Xerostomia can have a significant impact on the quality of life of patients treated by radiation therapy. Treatment can result in a profoundly dry mouth which causes additional problems with eating, swallowing, dental

health and speech. Coming to our study, significant improvements were observed in all QOL domains and the overall score during the treatment period, emphasizing the positive impact of the interventions on patients' physical, functional, psychological, and social well-being; findings underscore a significant positive trend in patients' QOL throughout the treatment period, with all patients ultimately achieving a "Good" QOL by the third visit. Both males and females experienced significant improvements in QOL scores across all domains during the treatment period. While females had higher physical domain scores at the second visit, and males had higher social domain scores at the third visit, overall changes were comparable between genders, demonstrating the effectiveness of the treatment for both groups. The present analysis of patient-reported QOL outcomes may help guide treatment decisions for patients with OSCC based on more accurate expectations of adverse effects of cancer treatment.

Conflict Of Interest

None

Acknowledgement

I sincerely want to thank the principal of the institution & the non-teaching staff for their valuable contribution, in the completion of this research

REFERENCES

[1] Nemeth D, Zaleczna L, Huremovic A, Engelmann J, Poeschl PW, Strasz M, Holawe S, Kornek G, Laskus A, Sacher C, Erovic BM. Importance of chewing, saliva, and swallowing function in patients with advanced oral cancer undergoing preoperative chemoradiotherapy: a prospective study of quality of life. International journal of oral and maxillofacial surgery. 2017 Oct 1;46(10):1229-36.

[2] Hatta JM, Doss JG, Rogers SN. The feasibility of using Patients Concerns Inventory (PCI) in managing Malaysian oral cancer patients. International Journal of Oral and Maxillofacial Surgery. 2014 Feb 1;43(2):147-55.

[3] Becker ST, Menzebach M, Küchler T, Hertrampf K, Wenz HJ, Wiltfang J. Quality of life in oral cancer patients–effects of mandible resection and socio-cultural aspects. Journal of Cranio-Maxillofacial Surgery. 2012

[4] Chandu A, Sun KC, DeSilva RN, Smith AC. The assessment of quality of life in patients who have undergone surgery for oral cancer: a preliminary report. Journal of oral and maxillofacial surgery. 2005 Nov 1;63(11):1606-12.

[5] Pandey M, Devi N, Ramdas K, Krishnan R, Kumar V. Higher distress relates to poor quality of life in patients with head and neck cancer. International journal of oral and maxillofacial surgery. 2009 Sep 1;38(9):955-9.

[6] Kessler PA, Bloch-Birkholz A, Leher A, Neukam FW, Wiltfang J. Evaluation of quality of life of patients with oral squamous cell carcinoma. Comparison of two treatment protocols in a prospective study. Radiotherapy and Oncology. 2004 Mar 1;70(3):275-82.

[7] Rogers SN, Fisher SE, Woolgar JA. A review of quality of life assessment in oral cancer. International Journal of Oral & Maxillofacial Surgery. 1999 Apr;28(2):99-117.

[8] Bakshi J, Goyal AK, Saini J. Quality of life in oral cancer patients following surgical excision and flap reconstruction. Journal of Maxillofacial and Oral Surgery. 2021 Jan 6:1-6.

[9] Patro SK, Panda NK, Bakshi J, Verma RK, Kumar P, Gaba S, John JR. Quality of life in patients with reconstructions after resections for oral cavity cancers. Indian Journal of Otolaryngology and Head & Neck Surgery. 2019 Oct;71:291-300.

[10] Palitzika D, Tilaveridis I, Lavdaniti M, Vahtsevanos K, Kosintzi A, Antoniades K. Quality of Life in Patients With Tongue Cancer After Surgical Treatment: A 12-Month Prospective Study. Cureus. 2022 Feb 23;14(2).

[11] Carranza ET, Cossío PI, Guisado JM, Aumente EH, Perez JL. Assessment of quality of life in oral cancer. Med Oral Patol Oral Cir Bucal. 2008 Nov 1;13(11):E735-741.

[12] Becker ST, Menzebach M, Küchler T, Hertrampf K, Wenz HJ, Wiltfang J. Quality of life in oral cancer patients–effects of mandible resection and socio-cultural aspects. Journal of Cranio-Maxillofacial Surgery. 2012 Jan 1;40(1):24-7.

[13] Markovic MM, Petrovic M, Latas M, Djordjevic I, Milovanovic S, Jovanovic S. Quality of Life of Patients with Oral Squamous Cell Carcinoma. Iranian Journal of Public Health. 2024 Feb;53(2):414.

[14] van Hinte G, Withagen KP, de Bree R, Speksnijder CM. Neck and shoulder morbidity in patients with oral cancer and clinically negative node neck status: a comparison between the elective neck dissection and sentinel lymph node biopsy strategies. InHealthcare 2022 Dec 16 (Vol. 10, No. 12, p. 2555). MDPI.

[15] Popovski V, Benedetti A, Popovic-Monevska D, Grcev A, Stamatoski A, Zhivadinovik J. Spinal accessory nerve preservation in modified neck dissections: surgical and functional outcomes. Acta Otorhinolaryngologica Italica. 2017 Oct;37(5):368.

[16] Lee SH, Lee JK, Jin SM, Kim JH, Park IS, Chu HR, Ahn HY, Rho YS. Anatomical variations of the spinal accessory nerve and its relevance to level IIb lymph nodes. Otolaryngology--Head and Neck Surgery. 2009 Nov;141(5):639-44.

[17] Kanatas AN, Rogers SN. A national survey of health-related quality of life questionnaires in head and neck oncology. Annals of the Royal College of Surgeons of England. 2004 Jan;86(1):6.