Life Satisfaction & Distress Tolerance in Oral Cancer Patients Undergoing Chemotherapy at a Chennai Tertiary Care Hospital

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Abstract

Oral cancer significantly impacts patients' psychosocial well-being, particularly during chemotherapy. This descriptive study assessed life satisfaction and distress tolerance among oral cancer patients at Rajiv Gandhi Government General Hospital, Chennai. Sixty patients were selected using nonprobability consecutive sampling and assessed using the Satisfaction with Life Scale (SWLS) and Distress Tolerance Scale (DTS). Results revealed that 100% of patients experienced dissatisfaction with life, with 83.33% reporting strong dissatisfaction. High distress levels were found in 86.67% of patients, and only 13.33% exhibited moderate tolerance. A significant negative correlation (-0.37, p=0.05) was observed between life satisfaction and distress tolerance. Demographic factors like age, gender, and residence significantly influenced these outcomes.

Keywords: Life Satisfaction, Distress Tolerance, Oral Cancer patients, Chemotherapy.

Introduction

Cancer, a group of diseases marked by the uncontrolled growth and spread of abnormal cells, remains a global health challenge and a leading cause of death, with millions of cases diagnosed annually (WHO, 2022). Oral cancer, affecting areas like the lips, tongue, and pharynx, significantly impairs essential functions such as speech, eating, and aesthetics, with 300,000 new cases and 145,000 deaths reported annually (WHO, 2022). Chemotherapy, a common treatment, often causes severe side effects like mucositis, fatigue, and pain, further diminishing patients' quality of life and psychological well-being (Anand et al., 2023).

Life satisfaction is notably lower in oral cancer patients, who face physical and emotional challenges, while distress tolerance plays a critical role in coping and treatment adherence (S Ostovar et al., 2022). Nurses are pivotal in oncology care, addressing physical, emotional, and social needs through education, side-effect management, and psychological support. This study explores life satisfaction and distress

tolerance among oral cancer patients, emphasizing nursing interventions to enhance patient care and outcomes.

Background of the Study

International Scenario: In 2022, oral cancer ranked as the 16th most common cancer globally, with 389,846 new cases. Asia accounts for nearly two-thirds of cases, driven by tobacco and areca nut use. Incidence rates are rising, while mortality rates remain stable.

Indian Scenario: India has the highest global prevalence of oral cancer, with over 130,000 new cases in 2020. It accounts for 30% of all cancers, predominantly affecting men over 40, with an ASIR of 20 per 100,000.

State scenario: Tamil Nadu reports approximately 2,560 new oral cancer cases annually, with a CIR of 6.4 per 100,000. Thanjavur women have the highest global ASR (9.2 per 100,000). Women (94 per 100,000) show higher incidence than men (75 per 100,000). Commonly affected sites include the tongue (44.22%) and buccal mucosa (14.69%).

Need for the study

Oral cancer is a growing global health issue, significantly impacting patients' physical, emotional, and social well-being (S Mehndiratta et al., 2024). This study addresses the critical gap in understanding the psychological dimensions of life satisfaction and distress tolerance among oral cancer patients undergoing chemotherapy. While chemotherapy is an essential treatment, its severe side effects often diminish patients' quality of life, underscoring the need to address emotional and social challenges alongside physical care (N Attaran et al., 2023).

Oral cancer is the sixth most common cancer globally, with approximately 300,000 new cases annually (EP Tranby et al., 2022). It accounts for 3% of cancers worldwide but has a significantly higher prevalence in Southeast Asia, particularly in India, which contributes nearly one-third of the global burden. Men are disproportionately affected, with a male-to-female ratio of 2:1 (F Masoudkabir et al., 2023).

Life satisfaction, a key indicator of well-being, is often severely reduced in oral cancer patients, with up to 70% reporting declines due to physical and functional challenges (Y Zhang et al., 2020). Similarly, low distress tolerance is linked to higher anxiety, depression, and poor treatment adherence (BS Russell et al., 2020). Nurses play a vital role in improving these psychological outcomes through targeted interventions (RA Mohammed et al., 2024). However, there is limited research on these aspects, highlighting the need for this study to explore their interrelation and develop effective nursing strategies to improve patient outcomes.

Statement of the Problem

"A study to assess the level of life satisfaction and distress tolerance among oral cancer patients on chemotherapy attending medical oncology department at tertiary care hospital, Chennai".

Primary Objectives

1. To assess life satisfaction among oral cancer patients undergoing chemotherapy.
2. To assess the level of distress tolerance among oral cancer patients undergoing chemotherapy.

Secondary Objectives

1. To correlate the level of life satisfaction with distress tolerance among oral cancer patients undergoing chemotherapy.

2. To associate the levels of life satisfaction and distress tolerance with the demographic variables of oral cancer patients undergoing chemotherapy.

Assumptions

The study assumes oral cancer patients undergoing chemotherapy may experience low levels of life satisfaction and distress tolerance.

Hypothesis

H1: A significant relationship between life satisfaction and distress tolerance.
H2: The significant association between life satisfaction and distress tolerance with their selected socio-demographic and clinical variables.

Delimitations

The study involved 60 adult patients (18+ years) receiving oral cancer chemotherapy and was conducted over four weeks.

Methodology

Research Approach & Design

Quantitative Non-experimental Descriptive study.

Research Setting

Department of Medical Oncology, RGGGH, Chennai.

Study Population

Oral cancer patients.

Sample Size

60 patients

Sampling Technique

Non-randomized consecutive sampling technique

Sampling Criteria

Inclusion Criteria:

- Aged between 18 - 65 years
- Diagnosed as oral cancer
- Male and female
- Read or understand Tamil or English

Exclusion Criteria:

- Oral cancer patients are not willing to participate in the study
- Critically ill during data collection
- Participate in any other research studies

Data Collection Instruments

- **Demographic Variables**: Age, gender, education, marital status, occupation, income, residence, dietary patterns and lifestyle habits
- **Clinical Variables:** Type of oral cancer, duration of illness, duration of chemotherapy and type of support.

- **Satisfaction with Life Scale (SWLS), Distress Tolerance Scale (DTS)**

Reliability and Validity

Tool validity was confirmed by nursing and oncology experts. Reliability, assessed via Cronbach's alpha, SWLS showed 0.80 & DTS showed around 0.82 to 0.89.

Ethical Considerations

The study obtained ethical clearance from the Institutional Ethics Committee at Madras Medical College, Chennai-03, ensuring participant rights, privacy, and safety through informed consent and strict ethical adherence.
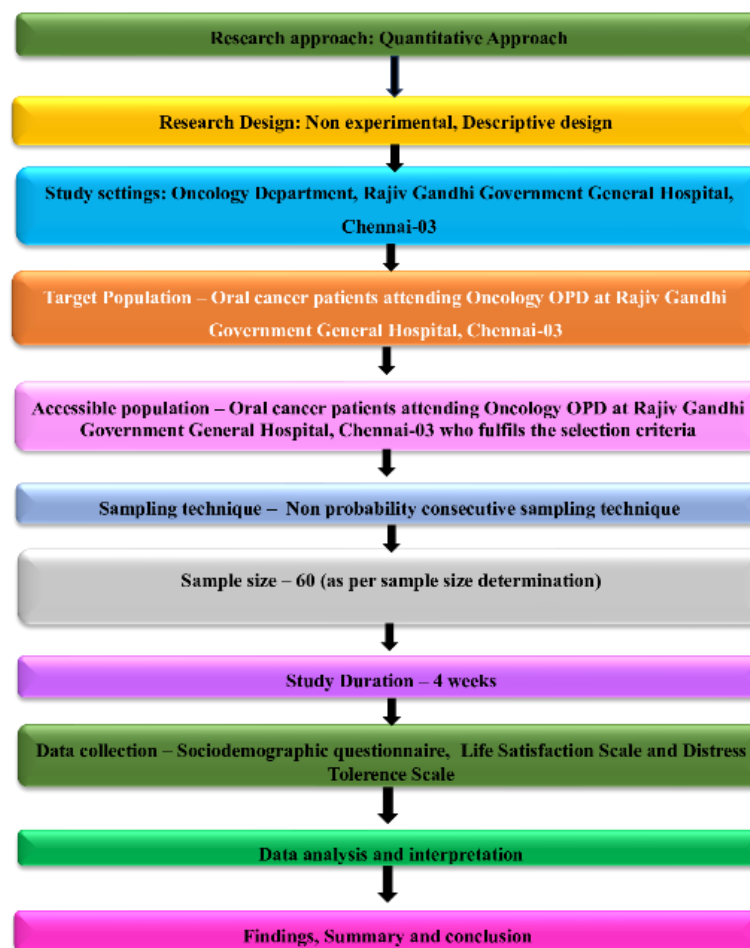

Research approach: Quantitative Approach

Research Design: Non experimental, Descriptive design

Study settings: Oncology Department, Rajiv Gandhi Government General Hospital, Chennai-03

Target Population – Oral cancer patients attending Oncology OPD at Rajiv Gandhi Government General Hospital, Chennai-03

Accessible population – Oral cancer patients attending Oncology OPD at Rajiv Gandhi Government General Hospital, Chennai-03 who fulfils the selection criteria

Sampling technique – Non probability consecutive sampling technique

Sample size – 60 (as per sample size determination)

Study Duration – 4 weeks

Data collection – Sociodemographic questionnaire, Life Satisfaction Scale and Distress Tolerence Scale

Data analysis and interpretation

Findings, Summary and conclusion

FIG.1. SCHEMATIC PRESENTATION

Results

The study revealed key sociodemographic characteristics, with most participants aged 31-40 years (51.67%), predominantly female (76.67%), Hindu (78.33%), and with secondary education (100%). The majority were married (73.33%) and unemployed or housewives (66.67%), with incomes ranging from Rs. 5001-15000 (60%). Most resided in semi-urban areas (85%) and followed a mixed diet (73.33%). Clinically, 88.33% had Squamous cell carcinoma (SCC), and 95% had been ill for 6 months to 1 year. Family support was crucial for 86.67%. Findings indicated 100% dissatisfaction with life, with high distress tolerance in 86.67% of participants. A significant negative correlation between distress and life

satisfaction (r = -0.37, p = 0.05) was observed. Demographic factors such as age, gender, and residence were strongly linked to life satisfaction and distress tolerance.

TABLE 1. DEMOGRAPHIC &CLINICAL VARIABLES OF THE ORAL CANCER PATIENTS

Clinical variables		N	%
Types of oral cancer	Adenoid cystic carcinoma (ACC)	7	11.67%
	Squamous cell carcinoma (SCC)	53	88.33%
	Polymorphous low-grade adenocarcinoma	0	0.00%
Duration of illness	6 months to 1 year	57	95.00%
	1 year to 2 year	3	5.00%
	2 to 5 year	0	0.00%
	>5 years	0	0.00%
Duration of chemotherapy	6 months to 1 year	60	100.00%
	1 – 2 years	0	0.00%
	>2 years	0	0.00%
Type of support	Family	52	86.67%
	Spouse	6	10.00%
	Friends	2	3.33%
	Others	0	0.00%

Demographic variables		Number of patients	%
Age	18-30 years	0	0.00%
	31-40 years	31	51.67%
	41-50 years	24	40.00%
	51-60 years	5	8.33%
Gender	Male	14	23.33%
	Female	46	76.67%
Religion	Hindu	47	78.33%
	Muslim	9	15.00%
	Christian	4	6.67%
Education	Primary	0	0.00%
	Secondary	60	100.00%
	Undergraduate	0	0.00%
	Postgraduate	0	0.00%
Marital status	Unmarried	9	15.00%
	Married	44	73.33%
	Divorced	0	0.00%
	Widowed	7	11.67%
Occupation	Self employed	14	23.33%
	Part time employed	6	10.00%
	Fulltime employed	0	0.00%
	Unemployed/Housewife	40	66.67%
Family monthly income	<Rs.5000	24	40.00%
	Rs.5001-15000	36	60.00%
	Rs.15001-25000	0	0.00%
	>Rs.25000	0	0.00%
Residence	Rural	0	0.00%
	Urban	9	15.00%
	Semi-urban	51	85.00%
Dietary pattern	Vegetarian	4	6.67%
	Non vegetarian	12	20.00%
	Mixed diet	44	73.33%

TABLE 2. LEVEL OF SATISFACTION SCORE

Level of satisfaction	Number of patients	%
Strongly dissatisfied	50	83.33%
Dissatisfied	10	16.67%
Total	60	100.0%
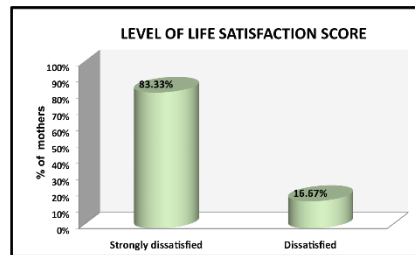
FIG.2.LEVEL OF SATISFACTION SCORE

TABLE 3. LEVEL OF DISTRESS TOLERANCE SCORE

Level of distress	Number of patients	%
Low	0	0.00%
Moderate	8	13.33%
High	52	86.67%
Total	60	100.0%
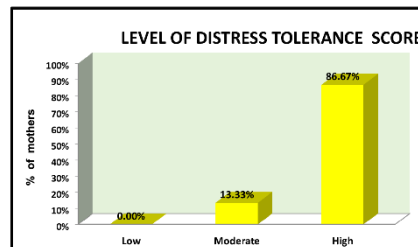
FIG.3.LEVEL OF DISTRESS TOLERANCE SCORE

Discussion

The study highlighted significant dissatisfaction with life circumstances among oral cancer patients on chemotherapy, with 83.33% strongly dissatisfied and 16.67% dissatisfied. Most patients (86.67%) exhibited high distress tolerance, while 13.33% reported moderate levels. These findings align with Zhang et al. (2020), who noted 90% of cancer patients experienced reduced quality of life due to treatment-related challenges.

A negative correlation between distress and life satisfaction was observed ($r = -0.37$, $p = 0.05$), suggesting that lower distress is linked to greater life satisfaction. This is consistent with Mehndiratta et al. (2024), who emphasized the role of psychological counselling and support groups in mitigating distress and improving life satisfaction.

Demographic factors, such as age, gender, and residence, significantly influenced outcomes. Similar to Davaatsend et al. (2023), this study found males, urban dwellers, and those without strong family support faced greater dissatisfaction and lower distress tolerance, highlighting the need for tailored interventions.

Implications of the Study

Nursing Practice

- Train nurses for psychosocial care.
- Focus care plans on males and urban patients.
- Strengthen family support through nurse-led efforts.
- Educate nurses on managing chemo effects.

Nursing Education

- Integrate psychosocial cancer care modules in nursing education.
- Train on using tools like Life Satisfaction and Distress Tolerance Scales.
- Emphasize ethical practices and informed consent.
- Enhance communication and emotional support skills for patient care.

Nursing Management

- Prioritize professional development in oncology nursing.
- Foster interdisciplinary collaboration for holistic care.
- Ensure adequate nurse-patient ratios in oncology wards.
- Secure resources for palliative care training.

Nursing Research

- Explore interventions to improve life satisfaction and distress tolerance.
- Conduct longitudinal studies on psychosocial outcomes of oral cancer treatments.
- Assess nursing care models' impact on patient outcomes.
- Evaluate nurse-led education programs' effectiveness in enhancing quality of life.

Recommendations

- Include diverse populations to generalize findings.
- Use qualitative methods for deeper patient insights.
- Develop interventions for males and urban patients.
- Investigate long-term psychological impacts and improve funding.

Limitations

- Small sample size (60) and non-probability sampling.
- Short study duration (4 weeks).
- Conducted in a single setting.
- Relied on self-reported data.
- No control group or comparative analysis.

Conclusion

Nurses are essential in managing the needs of oral cancer patients, particularly in improving life satisfaction and distress tolerance. This study emphasizes the need for specialized training to address patient challenges. Findings suggest that tailored interventions based on demographics are crucial. Future research should focus on refining care strategies. Empowering nurses with knowledge and resources will enhance both psychological and physical outcomes for these patients.

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