

Profiling the Awareness of Head and Neck Cancer and Awareness of Role of Speech Language Pathologist in Head and Neck Cancer among General Population - A Survey

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ABSTRACT

Purpose: To profile the awareness of Head and Neck Cancer and the awareness of role Speech Language Pathologist (SLP) in head and neck cancer among general population.

Method: Survey was conducted on 320 participants using a self-rated questionnaire which was created and circulated through Google forms and direct interview method to general population. This study includes participants who are non-medical students and professionals and above the age of 18 years.

Result: The awareness of the Head and neck cancer was observed to be less. Gender wise comparison was carried out using t test .It shows that the male are aware about the head and neck cancer symptoms, risk factors, screening, can be treated and treatment options than female(p =0.582) The general population are not aware about the role of SLP in pre diagnosis and rehabilitation.

Conclusion: More than creating the awareness of Head and Neck cancer, creating the awareness of Speech Language Pathologist will lead to better prognosis in the HNC patients.

Keywords: SLP, HNC, Screening, Assessment, Rehabilitation

INTRODUCTION

Head and neck cancer (HNC) is a complex disorder that includes mostly squamous cell carcinomas that can develop in the throat, larynx, nose, sinuses, and mouth. Head and neck squamous cell

carcinoma remain a major clinical challenge in oncology and represents the sixth most common neoplasm in the world today. ^[1] In India, HNC accounts for 21.2% of total malignancy. Squamous cell carcinoma is the most common histological type which accounts for 97 %. HNC shows its maximum incidence (>60%) in the age group of 40-60 years. Male: female ratio is 16: 1. Oral cancer is the most common HNC in people below 40 years whereas oropharynx and laryngeal cancers are common in patients above 40 years of age. ^[2] According to the study 'Public Awareness of Head and Neck Cancers: A Cross-Sectional Survey' conducted by Luryi and Judsan (2014) on 2126 Unites States adults using questionnaire which stated that only few Americans were aware about the symptoms and risk factors of HNC. ^[3] Krentowska and Seirko-Nobis (2018) conducted a study on 'Awareness of head and neck cancer - a multicentre survey among young respondents in Poland' in 1903 individuals using a 12-item questionnaire. The results revealed that the awareness of head and neck cancer in young population shows a low level and they were unaware of the risk factors and symptoms of HNC. ^[4]

A multidisciplinary team approach is essential in diagnosing and treating HNC. The members involved in the approach are Oncologist- medical, radiation, surgical,

Speech Language Pathologist (SLP), Pathologist, Radiologist. Other professionals can be involved based on necessity such as psychiatrist, nutritionist, dentist, cytopathologist, addiction specialist. The roles of the professionals are fairly known by the general population. Table 1 the team members and their roles who are involved in diagnosis and rehabilitation of HNC. [5] The restoration of speech and swallowing is one of crucial aspect after the treatment of HNC. This impacts the client's quality of life. [6]

The Speech Language Pathologist (SLP) is the one who conducts a comprehensive, culturally and linguistically appropriate assessment of speech, language,

cognition and swallowing deficits associated with HNC and diagnosing these deficits, providing referral to other professional to rule out related health conditions and facilitate access to comprehensive services, making decisions about the functional management of speech and swallowing in HNC in developing treatment plans, evaluating the quality of life, counselling before and after medical management and serving as an integral part in the inter professional team working with individuals with HNC and their families. [7] This study focusing on Profiling the Awareness of Head and Neck Cancer and role of Speech Language Pathologist in Head and Neck Cancer among General Population.

Table1: Team members and their roles who are involved in diagnosis &rehabilitation of Head and Neck Cancer

HEALTH PROFESSIONALS	PRE-OPERATIVE & POST-OPERATIVE ROLE
Medical Oncologist	They help in diagnosing and treating the patients with different aspects of cancer with medicines i.e., chemotherapy
Radiation Oncologist	They help in treating the cancer patients with radiation therapy
Surgical Oncologist	They help in treating the patients by performing surgical procedure in order to remove the tumour and reconstruct the lesion site
Speech Language Pathologist	They involve in baseline assessment in pre-treatment and provide strategies and techniques to improve swallowing and voice. They will be involved in major role in post treatment rehabilitation.
Pathologist	They involve in evaluating the microscopic tissue and diagnosing the type of carcinoma.
Radiologist	They help in examining the structures and diagnosing the site of Carcinoma.

AIM:

The aim of the study is Profiling the Awareness of Head and Neck Cancer and to know the Awareness of Role of Speech Language Pathologist among general population.

OBJECTIVES:

- To profile the overall awareness of Head and Neck Cancer among general population.
- To know the awareness of Speech Language Pathologist's role in Head and Neck Cancer among general population in pre diagnosis and rehabilitation.

MATERIALS AND METHODS

A self-rating questionnaire was created. The questionnaire consists of demographic data and two sections which totally comprises of 13 questions ([APPENDIX-1](#)) The first section consists of 7 questions which includes the HNC term,

symptoms, treatment options, screening procedures, causes and the second section consists of 6 questions which includes role of Speech Language Pathologist in screening, pre and post evaluation of voice & swallowing, examination of oral structures, Rehabilitation of voice and swallowing. The questions should be rated using a 5-point Likert scale where 1 denotes Not at all aware, 2 denotes Slightly aware, 3 denotes Moderately aware, 4 denotes Very aware and 5 denotes Extremely aware. This questionnaire was critically evaluated by four speech language pathologists and one medical oncologist. The study was conducted in general population through Google forms and direct interview. Volunteers were included in the study with appropriate Consent form. This study includes non- medical students & professionals greater than 18 years of age and excludes medical related professionals

and illiterate people. 320 subjects were included in the study.

analyzed. Table 2 represents frequency table of female and male data

RESULTS AND DISCUSSION

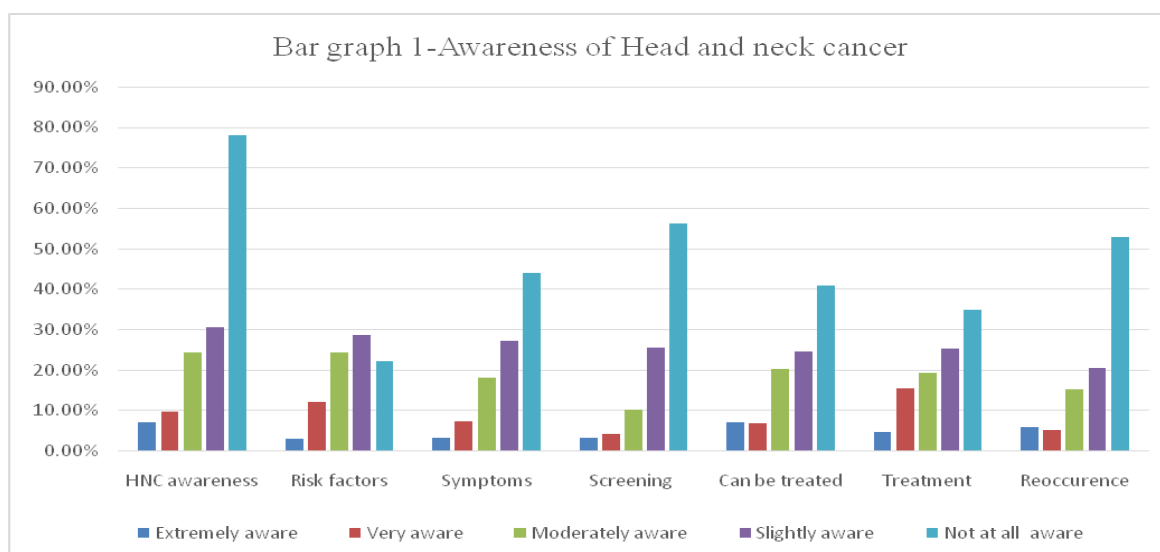
The data was obtained from 320 participants. Those data were tabulated and

Table 2:representing the frequency table of the 320 data.

GENDER	N	PERCENT
Male	163	50.9
Female	157	49.1

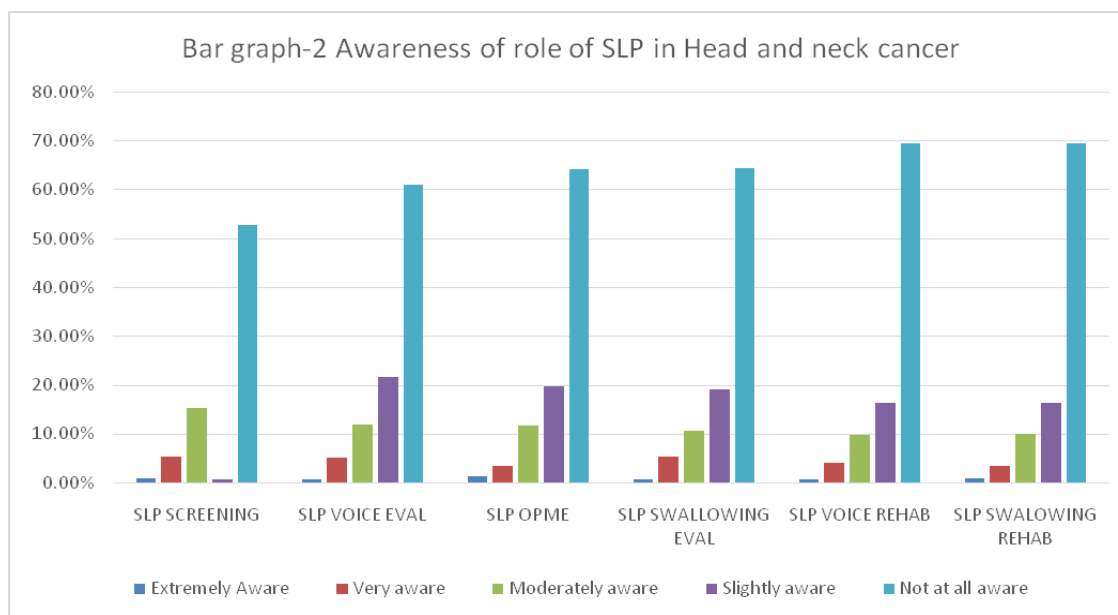
Table 3: representing the mean and standard deviation for awareness of HNC, awareness of role of SLP in pre diagnosis of HNC and awareness of role of SLP in post rehabilitation

	N	Mean	SD
Overall awareness of Head and Neck cancer	320	14.81	6.067
Awareness of role of SLP in diagnosis	320	6.33	3.245
Awareness of Role of SLP in Rehabilitation	320	3.02	1.658



The bar graph 1 represents the awareness of general information of head and neck cancer such as the awareness of term HNC, risk factors, symptoms, screening, can be treated, treatment options and reoccurrence of HNC. Self-reported scores were observed to very low. 7.2% were reported that they are extremely aware, 9.7% are Very aware, 24.4% are Moderately aware, 30.6% are slightly aware and 78.1% are not at all aware of the term of head and neck cancer. 3.1% were reported that they are extremely aware, 12.2% are Very aware, 24.4% are Moderately aware, 28.7% are slightly aware and 22.2% are not at all aware of the risk factors of head and neck cancer. The symptoms of head and neck cancer was reported as 3.4% are extremely aware, 7.5% are Very aware, 18.1% are Moderately aware, 27.2% are slightly aware and 44.1% are not at all

aware. The awareness about screening procedure was reported as 3.4% are extremely aware, 4.4% are Very aware, 10.3% are Moderately aware, 25.6% are slightly aware and 56.3% are not at all aware. The awareness about whether the cancer can be treated was reported as 7.2% are extremely aware, 6.9% are Very aware, 20.3% are Moderately aware, 24.7% are slightly aware and 40.9% are not at all aware. The awareness about available treatment options was reported as 4.7% are extremely aware, 15.6% are Very aware, 19.4% are Moderately aware, 25.3% are slightly aware and 35% are not at all aware. The awareness about the reoccurrence of the condition was reported as 5.9% are extremely aware, 5.3% are Very aware, 15.3% are Moderately aware, 20.6% are slightly aware and 53% are not at all aware.



The bar graph 2represents the awareness of role of Speech Language Pathologist in HNC among general population in pre diagnosis and rehabilitation.0.9% were reported that they are extremely aware ,5.3% are Very aware, 15.3% are Moderately aware,0.6% are slightly aware and 52.8% are not at all aware of role of SLP in screening of head and neck cancer. 0.6% were reported that they are extremely aware, 5% are Very aware, 11.9 % are Moderately aware, 21.6% are slightly aware and 60.9% are not at all aware of the role of SLP in acoustic and perceptual evaluation of voice in head and neck cancer patients. The role of SLP in evaluation of oral structures in head and neck cancer was reported as 1.3% are extremely aware, 3.4 % are Very aware, 11.6% are Moderately aware, 19.7% are slightly aware and 64.1% are not at all aware. The awareness about role of SLP in Swallowing evaluation in head and neck cancer patients were reported as 0.6% are extremely aware, 5.3 % are Very aware, 10.6% are Moderately aware, 19.1% are slightly aware and 64.4% are not at all aware. The awareness about role of SLP in providing voice rehabilitation techniques was reported as 0.6% are extremely aware, 4.1 % are Very aware, 9.7% are Moderately aware, 16.3 % are slightly aware and 69.4%

are not at all aware. The awareness about the role of SLP in swallowing rehabilitation was reported as 0.9% are extremely aware, 3.4% are Very aware, 10% are Moderately aware, 16.3% are slightly aware and 69.4% are not at all aware.

Table 4: representing the gender-wise mean, Standard deviation and p value for awareness of HNC

	N	Mean	SD	p value
Awareness of head and neck cancer	M	163	14.63	0.582
	F	157	15.00	

Among general population, (N=320), Awareness of the term HNC, risk factors, symptoms, screening, can be treated, treatment options and reoccurrence of HNC are observed to be less. To find out the gender difference of awareness of HNC among general population, t-test was carried out using SPSS software version 18. In gender- wise comparison, males have awareness of the term HNC, risk factors, symptoms, can be treated, treatment options and its reoccurrence when compared to females (p= 0.582)

Table 5: representing the gender-wise mean, standard deviation and p value for awareness of role of SLP in pre diagnosis and rehabilitation

	N	Mean	SD	p value
Awareness of role of SLP in pre diagnosis	M	163	6.82	0.005
	F	157	5.80	
Awareness of role of SLP in rehabilitation	M	163	3.38	0.000
	F	157	2.64	

General population are not aware about the role of SLP in pre diagnosis (Screening, evaluation of voice, Oral structures mechanism examination and swallowing evaluation) and in post rehabilitation (Speech and swallowing rehabilitation).

CONCLUSION

HNC is one of the morbidities and mortality condition. So, providing information on prevention to individuals and groups is very important in different ways to prevent HNC. Preventive strategies include life style/eating habits modifications, avoiding the risk factors that cause cancer such as food, alcohol, smoking and taking appropriate medical attention in pre-cancerous stage Providing awareness about these prevention strategies is very important. Along with prevention strategies as a SLP we have to emphasis our role in the screening, assessment, diagnosis and treatment for person with HNC which will enhance in early identification and intervention.

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APPENDIX-1

AWARENESS OF ROLE OF SPEECH LANGUAGE PATHOLOGIST (SLP) IN HEAD AND NECK CANCER

DEMOGRAPHIC DATA:

NAME: _____ DATE: _____
 AGE: _____ GENDER: _____
 OCCUPATION: _____ EDUCATION: _____
 EMAIL ID : _____ WHATSAPP NUMBER: _____

A) Awareness Of Head And Neck Cancer:

QUESTIONS	Not at all Aware (1)	Slightly Aware (2)	Moderately Aware(3)	Very Aware(4)	Extremely Aware(5)
Are you aware about head and neck cancer					
Are you aware about the risk factors of head and neck cancer (e.g. Tobacco use, Alcohol, Weakened immune system)					
Are you aware about the symptoms of head and neck cancer (e.g. weight loss, double vision ,red or white patches in mouth)					
Are you aware about the screening procedure for head and neck cancer (e.g. general health screening of nose, mouth and throat)					
Are you aware that head and neck cancer can be treated					
Are you aware about the treatment options such as surgical and non surgical (radiotherapy, chemotherapy.)					
Are you aware about its reoccurrence					

B) Role of Speech Language Pathologist (SLP) in Diagnosis and Management of Head and Neck Cancer:

