

Review Article

Speech-language Pathologist: A Team Member for Management of Head and Neck Cancer Patients

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ABSTRACT

Head and Neck cancer is one of the most prevalent conditions in the world and so is in Nepal. Head and Neck cancer causes speech, language, and swallowing disorder that affects the quality of life of a patient. A multidisciplinary team is needed for the management of the cancer patient. A Speech Language Pathologist is one important team member involved in the rehabilitation of communication and swallowing issues. The role of Speech Language pathologists should be understood by other medical professionals and need to be integrated into the team to provide a holistic health care facility to an individual with head and neck cancer.

Keywords: Communication; Head and Neck Cancer; Quality of Life; Speech Language Pathologist; Swallowing

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INTRODUCTION

An increase in the incidence of head and neck cancer over the past few decades has been observed due to an increase Human Papillomavirus (HPV) associated disease primarily.¹ It leads to multiple serious consequences for both communication and swallowing.² Multiple treatment options are available for the known cases of cancer which includes surgical removal of cancerous tissue, chemotherapy, and radiation therapy. Radiation therapy and chemotherapy have the advantage of preserving the organs but so far sparing the organ is not beneficial for preserving the function.^{3,4} Acute complications like xerostomia, mucositis, and dysgeusia are frequently reported by ones undergoing these treatment options. This negatively has an impact on eating or the desire of eating within a few weeks of the treatment.⁵ Feeding through tube/Ryle's tube for food and water gets prolonged due to the complication. Individuals with a large tumor, radiation therapy, chemotherapy, and geriatric patients often should rely

on tube feeding secondary to cancer⁵. Literature has frequently reported that there is a long-term and short-term negative impact on swallowing and communication following primary treatment (surgery, radiation, and/or chemotherapy) to cure cancer.^{6,7}

To minimize the effect of these treatments on quality of life (QOL), a team of professionals is needed. One of the members of the team for rehabilitation of the patient with head and neck cancer is a Speech-Language Pathologist (SLP). A SLP is specialized in the field of both communication and swallowing disorders. One with head and neck cancer has a high possibility of having difficulty either communicating or swallowing or both. This depends upon the type of treatment strategies being used. Whatever management option are available, there is always a need for a SLP to help patient to cope up with these issues.

The field of speech and hearing is in its early stages of development in Nepal. Though the roles of SLP in patient care in hospitals are highly warranted, there is a lack of adequate collaboration among professionals in patient assessment and management in Nepal due to limited awareness. Therefore, this viewpoint tries to highlight the importance of SLP in the care of patients with head and neck cancer.

HEAD AND NECK CANCER AND DYSPHAGIA

Malignancies of the head and neck, notably pharyngeal, tongue, and oesophageal cancers, can cause dysphagia. For neurologic reasons, head and neck cancer accounted for a considerable share of the underlying aetiologies related to dysphagia.⁴ Because the tumor can alter the motility of structures involved in swallowing, the incidence and severity of pre-treatment dysphagia and its repercussions (e.g., aspiration) are dependent on the tumor stage and its localization.^{5,6} Pre-treatment dysphagia was found in 28.2 % of patients with stage T2 or more oral cancer, 50.9 % in pharyngeal cancer, and 28.6% in laryngeal cancer.⁶ Other studies also have revealed a high incidence of dysphagia and aspiration before therapy.^{4,7}

Dysphagia in these patients could be temporary (lasting till the treatment like radiation therapy or chemotherapy is carried out), permanent (due to anatomical deficit as a consequence of surgical removal, or fluctuating due to neurological conditions like dementia).^{8,9} Cancer of the oral cavity affects the oral phases of swallowing namely, oral preparatory and transport. Trismus, drooling and difficulty bolus formation, pocketing of food, and propulsion to the pharynx are a few difficulties experienced due to oral cancers. Similarly, reduced pharyngeal clearance, aspiration, and delayed pharyngeal trigger are consequences of pharyngeal and laryngeal cancers and their surrounding areas.¹⁰ Esophageal cancers also cause dysphagia. Issues like sialorrhea, dyspnea, reduced peristalsis, and GERD are frequently reported symptoms by patients.¹¹

ROLES OF SPEECH-LANGUAGE PATHOLOGISTS

SLPs perfectly understand the anatomy, physiology, and function of the upper aerodigestive tract as it relates to swallowing and speech. SLPs are also trained in identifying communication difficulties, which can affect the diagnosis and treatment of swallowing problems. Other professionals, individuals, families, and carers collaborate with SLPs. Due to the difficulties of assessing and treatment of swallowing issues, interprofessional practice (IPP) is crucial to successfully obtain the necessary improvements and outcomes.¹²

A SLP's important job is to employ evidence-based practice to improve the quality of life of people who have communication and/or swallowing disorders. A SLP chooses or adapts evidence developed by numerous clinical investigations throughout therapeutic practice. To arrive at a diagnosis and rehabilitate the patient according to his or her needs, a SLP may use any or all of the following methods.¹³ They use models/criteria from either the *International Classification of Functioning, Disability, and Health (ICF) (12)* or *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, or the American Speech-Language and Hearing Association (ASHA) or all, to assess and manage a patient with either communication disorder or dysphagia or both.¹⁴

Service Delivery by speech-language Pathologists

The area of SLP service delivery is collaboration; counseling; prevention and wellness; screening; assessment; treatment; modalities, technology, and instrumentation.¹⁵

Collaboration: As a part of a cancer treatment team, SLP is responsible for collaborating with the other members of the team. For the patient's management, an effective collaborative effort is required. Collaboration among and amongst team members is required for this. SLP can cooperate with national and international specialists to improve knowledge to improve the effectiveness of a team's work in cancer therapy. SLPs can:

- collaborate with other professionals and organizations to increase the value of speech-language pathology services;
- collaborate to achieve functional results in patients with head and neck cancer;
- work with other professionals to meet the needs of people who have communication and swallowing issues. and;

Counseling: A SLP provides education, counseling, and support to cancer patients, their family members, and caregivers. Counseling assists people in accepting, adapting, and making decisions regarding communication, feeding, and swallowing difficulties, as well as other connected issues. SLP understands and empathizes with the patient's emotional reactions, thoughts, feelings, and behavior.

SLP focuses on counseling to ensure that the person with head and neck cancer, as well as family members/caregivers, can make informed decisions about communication, eating, and swallowing challenges. During counseling patients and family/caregivers are

- educated about communication or feeding and swallowing disorders.
- provided support and/or peer-to-peer groups for individuals with disorders and their families.
- provided with skills that enable them to become self-advocates.
- evaluated, discussed, and addressed the negative emotions and thoughts related to communication or feeding and swallowing disorders.
- referred to other professionals when counseling needs fall outside of those related to (a) communication and (b) feeding and swallowing.

Prevention and Wellness: Based on the ICF framework, SLP focuses on a variety of prevention and wellness activities, ensuring that no person with cancer is excluded from any activity or involvement in daily life. This is mostly accomplished by raising public knowledge of the illness and its consequences. Therefore, Prevention and Wellness can

- reduce the incidence of the particular disease or condition,
- identify a particular condition in its early stage
- minimize the severity or impact of existing disease and/or disorder.

Through community-based preventative efforts, the majority of cancer awareness and its repercussions are directed at changing bad habits or attitudes. One notable example of associated swallowing disorder awareness is educating those who are at risk of developing aspirations in the future about dental hygiene.

Screening: When head and neck cancer is treated with any approach, the patient may be admitted to the hospital. There are a variety of complications that patients can face, including communication and swallowing difficulties. A SLP does a bedside screening to determine whether a person has true communication and swallowing difficulties. Based on the facts, SLP employs a variety of Bedside Screening methods. Timed Test of Swallowing and Questionnaire¹⁶, and STAND (Screening Tool for Acute Neurological Dysphagia)¹⁷ are two examples of screening tools used by an SLP during a bedside evaluation. These screening methods enable a SLP to determine whether the patient should be referred for a detailed communication or clinical swallow examination.

Assessment: SLPs are trained to differentiate between various types of communication and swallowing disorders in patients with head and neck cancer, but they do not diagnose medical problems. Using the International Classification of Functioning, Disability, and Health (ICF) framework, which focuses on evaluating bodily structure, function, activity, and involvement within the context of environmental and personal factors. During this procedure, criterion-referenced instruments that are culturally and linguistically suitable are employed. SLPs

- evaluate medical records to ascertain important health, medical, and pharmaceutical information;
- provide standardized and/or criterion-referenced tools to compare individuals with their counterparts;
- conduct interviews with individuals and/or their families to get a case history and identify specific concerns;
- use assessment techniques that are culturally and linguistically suitable;
- conduct behavioral observations in a naturalistic setting/context to determine the individual's abilities;
- determine the cause of communication and swallowing problems;
- evaluate features of voice, resonance, velopharyngeal function, and swallowing using endoscopy, video-fluoroscopy, and other instruments;
- keep track of evaluation and trial results when deciding on AAC therapies and technology, such as speech-generating devices (SGDs);
- keep track of the results of the assessment, including discharge plans;

- create impressions to develop a treatment plan and recommendations

Treatment: A SLP is a specialist in the treatment and rehabilitation of all types of speech, language, and swallowing impairments. SLPs manage their patients based on scientific evidence. In the case of patients with head and neck cancer, SLP ensures that functional communication is maintained in the patient. In addition, compensatory methods or a facilitatory approach are utilized to ensure that the patient has the functional competence to eat orally. SLPs :

- provide culturally and linguistically appropriate services;
- integrate the highest quality available research evidence with practitioner expertise, individual preferences and values in establishing treatment goals;
- design, implement, and document service delivery following the best available practice appropriate to the practice setting;
- integrate academic materials and goals into treatment;
- deliver the appropriate frequency and intensity of treatment using the best available practice;
- engage in treatment activities that are within the scope of the professional's competence;
- use AAC performance data to guide clinical decisions and determine the effectiveness of treatment; and
- collaborate with other professionals.

CONCLUSIONS

Patients with head and neck cancer may experience a variety of challenges before, during, and after treatment. Individuals have difficulties communicating or swallowing as a result of primary treatments such as surgery, chemotherapy, and radiation therapy. The administration of the cancer team requires a diverse team. SLP is a vital member of the team who collaborates, counsels, prevents, screens, assesses, and treats cancer patients in need. As a result, the value of SLP must be appreciated by all medical professionals, and they must be integrated into the medical system to provide a patient with head and neck cancer with a holistic health care facility.

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