

# Barriers in Oral Cancer Rehabilitation: A Physiotherapist's Perspective

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## ABSTRACT

**Background:** Oral cancer has a significant long-term impact on survivors, especially with regard to their physical, mental, and social well-being, in addition to the immediate threat to their lives. The purpose of this study is to determine and investigate the challenges that physiotherapists encounter when assisting oral cancer survivors with their rehabilitation.

**Methodology:** A total of 835 physiotherapists, selected through purposive sampling, participated in the survey. A Google form was distributed via professional networks, online physiotherapy forums, and email to capture information about the participants' demographic data, experience with oral cancer patients, and the specific challenges they encountered in providing effective rehabilitation. The responses were recorded and analyzed using the latest version of MS Excel.

**Results:** The biggest barrier reported was psychological factors like lack of motivation, fear of recurrence, body image concerns, social isolation accounting for 64.42%. This was followed by caregiver burden limiting patient's access to physiotherapy treatment/s (50%), pre-existing beliefs about exercise (40.29%) etc.

**Conclusion:** Effective physiotherapy rehabilitation for patients with oral cancer in India is hampered by a number of factors, including knowledge, evidence, guidelines, budgetary limitations, psychological concerns, and systemic healthcare issues.

**Keywords:** barriers, physiotherapy, rehabilitation, oral cancer

## INTRODUCTION

With a rising incidence globally, oral cancer which includes cancers that arise in the mouth and oropharynx is a serious public health issue. With around 400,000 new cases and 200,000 fatalities per year, oral cancer ranks as the sixth most frequent cancer worldwide, according to the World Health Organization (WHO). [1] Oral cancer has a significant long-term impact on survivors, especially with regard to their physical, mental, and social well-being, in

addition to the immediate threat to their lives. In order to assist survivors regain function and quality of life following treatment for oral cancer, rehabilitation is essential. However, when providing rehabilitation services to this patient population, physiotherapists frequently encounter a number of obstacles as members of a multidisciplinary care team. With a focus on the complex issues that affect rehabilitation outcomes and the necessity of integrated care models, this

introduction attempts to examine the particular obstacles faced by physiotherapists in oral cancer rehabilitation.

Restoring both physical and psychosocial functionality is the goal of the intricate, multifaceted process of oral cancer rehabilitation. Speaking, swallowing, mastication, and facial symmetry are just a few of the functional deficits that survivors of oral cancer frequently encounter as a result of surgery, radiation, and chemotherapy. [2] A patient's social interaction, self-esteem, and dietary intake can all be greatly impacted by these deficits, which can lower their quality of life. Physiotherapists are crucial in managing these deficits, especially when it comes to enhancing mobility, treating post-operative complications, controlling pain, and offering head and neck rehabilitation therapies. [3] Despite their crucial function, physiotherapists encounter a number of obstacles that may prevent successful rehabilitation, such as institutional, socioeconomic, psychological, and physical problems.

The physical intricacy of oral cancer is one of the main obstacles, physiotherapists must overcome when rehabilitating patients. Patients' rehabilitation needs differ depending on the severity of their impairments and the variety of cancer treatments. For example, individuals who have significant oral cavity surgical resections may develop complex scarring, fibrosis, or muscle weakness, necessitating the need of specialist intervention techniques. [4] The impact of radiation therapy on tissue elasticity and muscle function further complicates rehabilitation efforts, leading to chronic pain, stiffness, and reduced range of motion. [5] Therefore, it is necessary for physiotherapists to create customized treatment plans that take into account these different needs, which calls for both skill and adaptability.

The rehabilitation process is greatly impacted by psychological obstacles in addition to physical ones. The physical

rehabilitation process is frequently made worse by the emotional and psychological effects of treating oral cancer, such as anxiety, depression, and problems with body image. [6] Reduced motivation, noncompliance with rehabilitation exercises, and general poor therapy participation can all be caused by these psychological variables. Additionally, patients may experience stress related to deformity or altered speech habits, which can further hinder or postpone rehabilitation progress. [7] Physiotherapists must include supportive counseling and encouragement in their treatment programs because they are frequently at the forefront of addressing these psychological issues.

Another important factor affecting the efficacy of oral cancer rehabilitation is institutional constraints. The absence of defined rehabilitation processes in many healthcare systems might lead to inconsistent care delivery. [8] Rehabilitation efforts are made more difficult by the absence of interdisciplinary cooperation and communication between oncologists, physiotherapists, speech therapists and other medical professionals. [9] Early cancer treatment planning may not always involve physiotherapists, which could cause delays in starting rehabilitation and lost chances to stop functional decline. The complete treatment required for the best possible recovery may also be hampered by lack of funds, resources and access to specialized rehabilitation services. [10]

Another major obstacle to oral cancer rehabilitation is socioeconomic status; patients from lower socioeconomic backgrounds may experience additional difficulties, such as limited access to rehabilitation services, financial strain, and lack of social support [11], which can lead to poor treatment adherence, delayed rehabilitation initiation, and overall suboptimal outcomes. In rural areas, in particular, access to specialized healthcare may be limited, which can delay timely rehabilitation interventions and lengthen recovery periods [12].

Improving awareness, access to care, and cooperation amongst healthcare disciplines are all necessary to overcome these obstacles. Physiotherapists must incorporate psychological support, patient education, and socioeconomic factors into their work in addition to concentrating on the physical aspects of rehabilitation. Overcoming these obstacles and maximizing rehabilitation results require the creation of comprehensive, patient-centered care plans that include early interventions, interdisciplinary approaches, and continuing support.

Restoring survivors' physical, emotional, and social functioning is the goal of oral cancer rehabilitation, a crucial component of post-treatment care. Despite its significance, a number of patients encounter major obstacles to successful rehabilitation, such as institutional, socioeconomic, psychological, and physical difficulties. These obstacles jeopardize the quality of life and recovery results for oral cancer survivors in addition to impeding the rehabilitation process. Although physiotherapists are essential in treating functional impairments such as pain management, musculoskeletal problems, and difficulties speaking and swallowing, little study has been done on the obstacles they encounter in this setting. Improving the provision of rehabilitation services and guaranteeing thorough, patient-centered treatment require an understanding of the obstacles faced by physiotherapists. Furthermore, investigating these obstacles can help shape healthcare regulations and improve multidisciplinary rehabilitation techniques. The purpose of this study is to determine and investigate the challenges that physiotherapists encounter when assisting oral cancer survivors with their rehabilitation. Through an analysis of these challenges, the study aims to provide light on the intricacies of oral cancer rehabilitation from the viewpoint of the physiotherapist. In order to improve rehabilitation outcomes, the study will also suggest possible approaches and solutions to

get over these obstacles. The ultimate objective is to enhance oral cancer survivors' quality of life by means of interdisciplinary cooperation and optimal rehabilitation techniques.

## **MATERIALS & METHODS**

This study aimed to explore the barriers faced by physiotherapists in treating oral cancer patients. A survey was conducted using a structured Google Form to gather data from physiotherapists with experience in the rehabilitation of oral cancer patients. The survey consisted of both closed and open-ended questions, focusing on various aspects of treatment, including physical, psychological, and logistical barriers, as well as their professional knowledge and experience in this field.

The study aimed to identify common barriers and suggest potential strategies for overcoming these challenges, thus contributing valuable insights to improving rehabilitation practices for oral cancer patients. Ethical considerations, including informed consent and confidentiality, were ensured throughout the study.

A total of 835 physiotherapists, selected through purposive sampling, participated in the survey. The sample size was calculated using the EPI info software version 7.2.5 considering an expected frequency of 70%, acceptable margin of error of 3%. These participants were identified based on whether or not they were registered with the central body of Indian physiotherapists, the Indian Association of Physiotherapists. Only registered clinicians were included in the study. A Google form was distributed via professional networks, online physiotherapy forums, and email.

The survey was designed to capture information about the participants' demographic data, experience with oral cancer patients, and the specific challenges they encountered in providing effective rehabilitation. The responses were recorded and analyzed using the latest version of MS Excel.

## RESULT

The present study aimed at exploring the barriers faced by physiotherapists in oral cancer rehabilitation. There were 835 participants recruited in this survey-based study. 53% were females and 47% were males (figure 1). According to age

distribution, 46% participants belonged to the age group of 31-40 years followed by 37% whose age was between 21 to 30 years (figure 2). 72% participants reported to have had an experience in treating only 11-20 oral cancer patients, which was the maximum (figure 3).

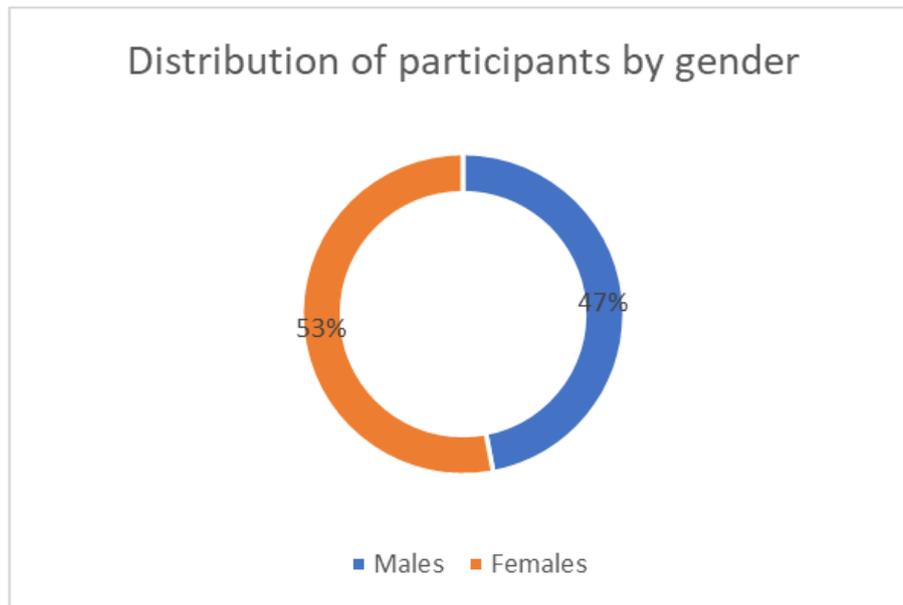


Figure 1: Distribution of participants by gender

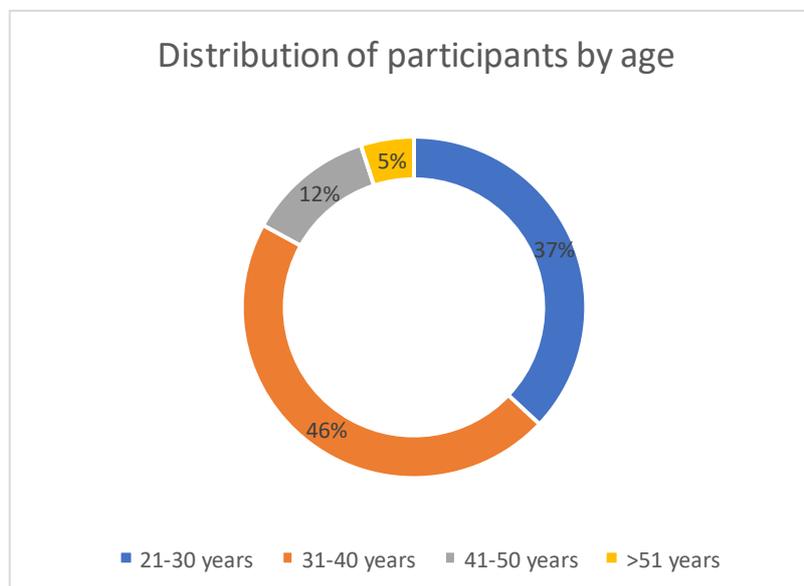


Figure 2: Distribution of participants by age

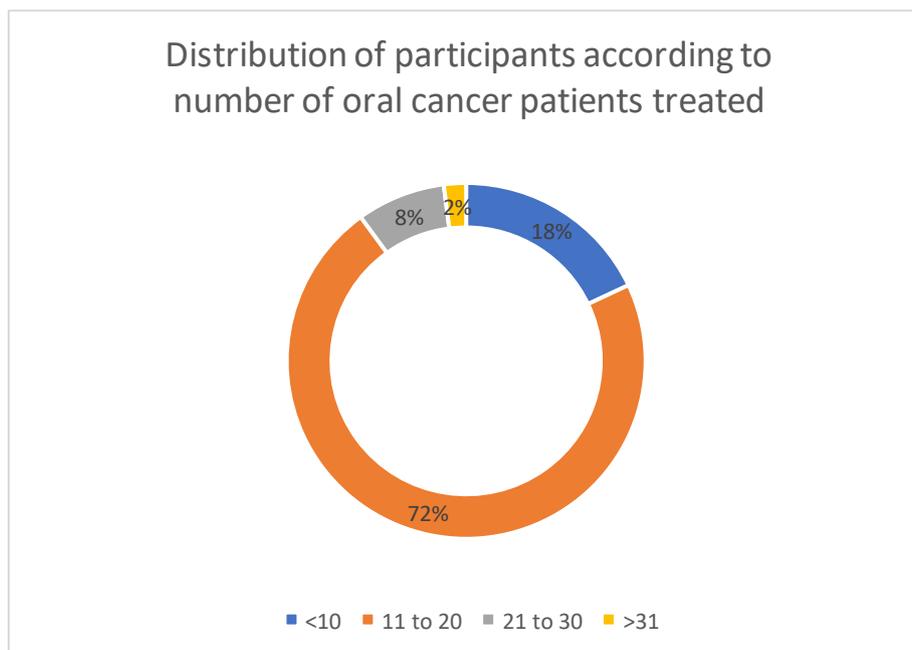


Figure 3: Distribution of participants according to number of oral cancer patients treated

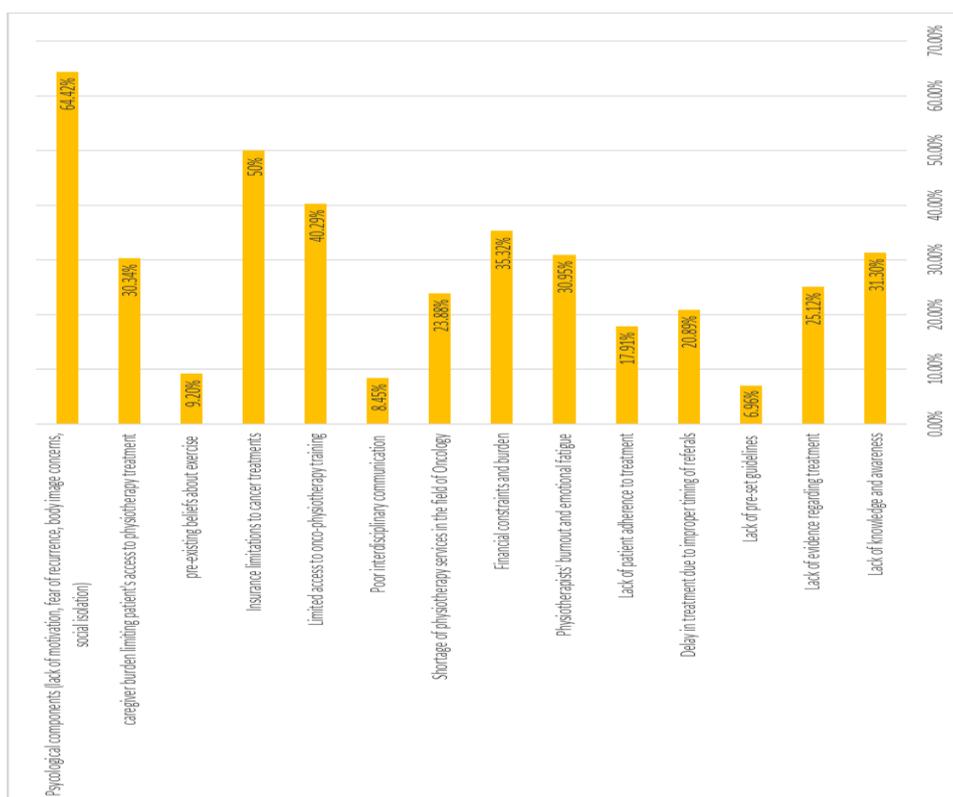


Figure 4: Barriers reported by physiotherapists while managing oral cancer patients

Figure 4 depicts the various barriers reported by the study participants in managing oral cancer patients. The biggest barrier reported was psychological factors like lack of motivation, fear of recurrence, body image concerns, social isolation accounting for 64.42%. This was followed

by caregiver burden limiting patient's access to physiotherapy treatment/s (50%), pre-existing beliefs about exercise (40.29%), insurance limitations to cancer treatments (35.32%), limited access to onco-physiotherapy training (31.30%), poor interdisciplinary communication (30.95%),

shortage of physiotherapy services in the field of Oncology (30.34%), financial constraints and burden (25.12%), physiotherapists' burnout and emotional fatigue (23.88%), lack of patient adherence to treatment (20.89%), delay in treatment due to improper timing of referrals (17.91%), lack of pre-set treatment guidelines (9.20%), lack of evidence regarding treatment (8.45%) and lack of knowledge and awareness about oral cancer rehabilitation (6.96%).

## **DISCUSSION**

Physiotherapy is essential to the recovery of patients with oral cancer because it increases functional mobility, reduces discomfort, and improves quality of life in general. Nevertheless, a number of obstacles restrict the efficiency and availability of physiotherapy treatments in India. Indian physiotherapists have identified a number of complex and multifaceted challenges in the rehabilitation of patients with oral cancer, including a lack of awareness and knowledge, a lack of evidence supporting treatment protocols, financial limitations, psychological factors, and systemic issues like delayed referrals. In oncology rehabilitation, removing these obstacles is crucial to raising patient outcomes and care quality.

One of the biggest obstacles to oral cancer recovery is a lack of understanding and awareness regarding the significance of physical therapy. The general public and medical professionals in India are still not well-informed on the benefits of physical therapy for cancer patients, despite mounting evidence that it can enhance their functional recovery and quality of life. The unique requirements of patients with oral cancer may not be completely understood by many physiotherapists, and the possibility of rehabilitation is frequently disregarded. This knowledge gap may result in underuse of physiotherapy services, which lessens the treatment's overall effect. Additionally, patients and caregivers could put off getting the right care because they

are unaware of the rehabilitation choices available. The adoption of physiotherapy in oncology care should be enhanced by interdisciplinary educational initiatives, public health campaigns, and professional development opportunities for physiotherapists. [13]

The absence of effective, evidence-based physiotherapy treatment methods in the setting of oral cancer rehabilitation is another major obstacle. Research on oral cancer rehabilitation in the Indian healthcare system is scarce, despite the fact that rehabilitation techniques for other malignancies have been examined worldwide. [14] It is difficult for physiotherapists to customize rehabilitation programs for specific patients in the absence of precise, evidence-based standards, which results in inconsistent treatment philosophies. Standardized protocols for doctors and useful data to support treatment decisions would be produced by the growth of oral cancer rehabilitation-focused localized research and clinical trials in India [15].

Providing adequate physiotherapy care is made more difficult by the absence of established criteria for the rehabilitation of patients with oral cancer. Physiotherapists could find it difficult to carry out reliable, evidence-based rehabilitation programs in the absence of defined therapeutic guidelines. In a multicultural nation like India, where disparities in healthcare facilities and resources make matters worse, this issue is particularly severe. [16] The special requirements of patients with mouth cancer should be taken into consideration while developing guidelines for oncology rehabilitation. In order for physiotherapists to deliver consistent, high-quality therapy throughout the nation, these standards ought to be founded on research done in the Indian setting.

Delays in physiotherapy referrals have been highlighted as a crucial obstacle that has a substantial impact on the efficacy and timing of rehabilitation. Delays in starting rehabilitation result from the fact that many

patients are not referred to physiotherapists promptly. This frequently results from a lack of awareness of the significance of early rehabilitation or from poor communication between physiotherapists and oncologists. [17] Referrals that are delayed can keep patients from receiving rehabilitation at the best time, especially after radiation therapy or surgery, when functional impairments are at their worst. To solve this problem and guarantee prompt access to rehabilitation, oncologists, surgeons, and physiotherapists should improve interdisciplinary communication and create uniform referral procedures.

Another major issue is patient adherence to physiotherapy treatment; many patients do not complete their recommended rehabilitation regimens. According to Yadav et al (2019), adherence in patients with oral cancer is frequently impacted by a number of variables, including as physical discomfort, mental distress, and a lack of awareness regarding the significance of rehabilitation in the healing process. [18] Psychosocial problems such melancholy, body image issues, and recurrence anxiety can make patients less inclined to participate in physical therapy. [19] Adherence to rehabilitation programs may be enhanced by addressing these psychological aspects through integrated care that incorporates psychological counseling and support.

Because cancer rehabilitation is so demanding, physiotherapists who practice in oncology settings frequently suffer from burnout and emotional exhaustion. Professional burnout can result from the high emotional demands of caring for cancer patients in India, where there is currently a shortage of physiotherapists. [20] This has an impact on physiotherapists' health as well as the standard of service they are able to offer. This problem can be lessened and the general standard of rehabilitation services raised by putting burnout prevention techniques into practice, such as consistent professional assistance, stress management courses, and making sure caseloads are manageable.

For many cancer patients in India, financial limitations are a major obstacle. The cost of cancer treatment, which includes radiation, chemotherapy, and surgery, is frequently high, and physiotherapy services add to the financial strain. This problem is made worse by the fact that cancer rehabilitation is not widely covered by insurance, which prevents many patients—particularly those from low-income families—from accessing necessary rehabilitation therapies. [21] To lower financial obstacles to rehabilitation, policy measures that guarantee insurance coverage for cancer rehabilitation services and government assistance for low-income patients are required.

The efficiency of physiotherapy rehabilitation is greatly impacted by psychological factors, such as social isolation, body image issues, fear of recurrence, and lack of motivation. Due to the obvious character of the disease, which can result in severe discomfort linked to physical appearance and social stigma, these aspects are especially prevalent in patients with oral cancer. [22] Addressing these obstacles and enhancing patient involvement with physiotherapy can be achieved by including psychological support into the rehabilitation process. Additionally, access to physiotherapy treatments is restricted by caregiver burden, which frequently arises from the financial, emotional, and physical strain of caring for a cancer patient. [23] Offering caregiver support services like counseling and respite care could lessen this load and increase patient access to rehabilitation.

Another major obstacle is the lack of access to professional onco-physiotherapy training. There is a dearth of knowledge in this specialized field in India because there are few official training programs for physiotherapists in oncology rehabilitation. [24] Enhancing physiotherapists' skill sets and raising the standard of care for patients with oral cancer would be possible by providing more training opportunities, especially in oncology rehabilitation,

through workshops, online courses, and academic collaborations.

## CONCLUSION

Effective physiotherapy rehabilitation for patients with oral cancer in India is hampered by a number of factors, including knowledge, evidence, guidelines, budgetary limitations, psychological concerns, and systemic healthcare issues. A multifaceted strategy will be needed to overcome these obstacles, including improved training and education for medical staff, the creation of clinical guidelines and evidence-based treatment protocols, enhanced interdisciplinary communication, financial reforms, and psychological support for patients and caregivers. By addressing these issues, India can guarantee better results for patients with oral cancer and greatly raise the standard of cancer rehabilitation services.

### Declaration by Authors

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