

# Knowledge and Awareness of Buccal Mucosa Cancer amongst Physiotherapist

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## ABSTRACT

**Background-** Buccal mucosa cancer is among the top three types of cancers in India. It is a malignant neoplasia which arises on the lip or buccal cavity. Despite the general global trend of a slight decrease in the incidence of buccal mucosal cancer, tongue cancer incidence is increasing rapidly. Buccal mucosal cancer is two to three times more prevalent in men than women in most groups. The main risk factors of head and neck cancer globally are smoking and alcohol, as well as DNA oncogenic viruses and habits, such as betel nut. Brief practices observed by general public could be impacted in a positive way, when adequate knowledge is provided by health care professional. Hence, it is necessary to know if they have the knowledge and awareness about the preventable buccal mucosal cancer amongst physiotherapists.

**Purpose-** To evaluate the knowledge and awareness of buccal mucosal cancer amongst physiotherapists.

**Method-** A cross sectional study was conducted on physiotherapists. Data was collected using questionnaire which was pre-designed and self-made. The questionnaire included specific questions to test participants knowledge and awareness related to buccal mucosal cancer. Data analysis was done by SPSS Version 20.0.

**Results-** Data from 130 participants were included for final analysis. The mean age of participants was 24.5 years.

**Conclusion-** The study shows fair knowledge and awareness of buccal mucosal cancer amongst physiotherapists. Only 60 -70% participants appeared to be having fair level of knowledge (in terms of prevalence, aetiology, signs & symptoms, treatment)

**Keywords-** Knowledge, Awareness, Buccal mucosal cancer, Prevention Physiotherapist.

## INTRODUCTION

Buccal mucosal cancer is one of the most prevalent cancers and is one of the ten major causes of death. Most common buccal mucosal carcinoma is squamous cell carcinoma [1]. Cancer may be defined as an uncontrolled tissue growth which result from imbalance between cell division and programmed cell death.[2] The term “buccal mucosal cancer” is used to describe any malignancy that arises from the buccal mucosal cavity comprising of lip, tongue, buccal mucosa, and oropharynx Lip cancer,

the most common form of buccal mucosal cancer, affects mostly men [3]. India has the highest number of cases of buccal mucosal cancer in the world.[6] Buccal mucosal cancer ranks amongst the three most common cancers in India and in some area's accounts for almost 40% of total cancer deaths.[5] It is a multidimensional problem that has immense impact on each individual and their belongings, on all health services and on wider society. More than 90 percent of cancers that occur in the buccal mucosal cavity are squamous cell carcinomas.[6] The

highest priority should be given to tobacco control.

Tobacco consumption continues to prevail as the most important cancer risk as it alone accounts for millions of cancer deaths annually.<sup>[7]</sup> Despite recent advances in the diagnosis and treatment of cancer, visual accessibility to buccal mucosal cancer has yet to change<sup>[8]</sup>. Early diagnosis and referral are essential for less treatment, which improves the prognosis and quality of life.<sup>[8]</sup>

It usually arises as a non-healing painless ulcer in the normal mucosa or an area of clinically altered buccal mucosal mucosa such as leukoplasia or Erythroplasia (appears as abnormal red lesions on the mucous membranes in mouth.<sup>[9]</sup> Erythroplasia (a reddened patch with a velvety surface on the buccal mucosal or genital mucosa that is considered to be a precancerous lesion) and leucoplakia disorders are usually related to buccal mucosal cancer.<sup>[10][21]</sup> Buccal mucosal cancer is a preventable disease, where smoking and alcohol-considered major risk factors-are present in 90% of cases, having them both a synergic effect.<sup>(6)</sup>

The risk factors of Buccal mucosal Cancer are:<sup>[11]</sup>

- Tobacco
- Alcohol
- Betel quid and areca nut
- Human Papillomavirus (HPV)
- History of previous cancer
- Family history of squamous cell carcinoma (SCC)
- Sun exposure
- Diet low in vegetables and fruits
- Poor buccal mucosal hygiene
- Poor fitting dentures

Buccal mucosal cancer is of different types<sup>[12]</sup>

### **(1) Squamous Cell Carcinoma of the Buccal mucosal Cavity**

More than 90 percent of buccal mucosal cancers are squamous cell carcinoma.

**Verrucous carcinoma:** About 5 percent

of all buccal mucosal cavity tumours are verrucous carcinoma.<sup>[13]</sup>

### **(2) Minor salivary gland carcinomas**

### **(3) Lymphoma<sup>[16]</sup>**

One of the main causes seems to be the lack of awareness about buccal mucosal cancer, both among the general population and some health care professionals.<sup>[17]</sup> The number of countries that have implemented buccal mucosal cancer controls programs is minimal in comparison to those for others cancers such as breast, cervical, and prostate.<sup>[18]</sup>

Physiotherapist are involved in treating various musculoskeletal disorders such as TM Joint dysfunction, Bell's palsy, Facial palsy, etc. so adequate knowledge of sign and symptoms of buccal mucosal cancer can help in early diagnosis of disease.<sup>[19]</sup>

This study was designed to identify the level of knowledge and awareness about buccal mucosal cancer among physiotherapists.

## **METHODS AND METHODOLOGY**

Study design and data collection- Study was carried out in Ahmedabad city in 2021 which included 130 physiotherapists having age between was 22-30 years. The Questionnaire was developed from various aspects consisting of prevalence, aetiology, sign and symptoms and treatment. Respondents were randomly selected. Before conducting a survey, the consent form was being signed by the respondents and questionnaire was handed to the them after signing for the one. The self-made questionnaire designed included the sociodemographic data, and various questions to assess knowledge and awareness of buccal mucosal cancer. Questionnaire was in English and all participants were proficient in language. It contains 20 questions and was in English and all participants were proficient in language. In the questionnaire, 5 questions each related to Prevalence, Etiology, Sign & Symptoms and Treatment of buccal mucosal cancer was asked with four relevant options.

After conducting this study, statistical analysis was done using SPSS Version 20.0.

buccal mucosal cancer with relevant options.

**STATISTICAL ANALYSIS**

All the statistical analyses carried out in the study was done by SPSS Version 20.0. Descriptive analysis was performed to evaluate the components of questionnaire.

**RESULT**

The mean age of Participants is 24.5 years. Out of 130, 110 were females and 20 were male. The results show majority of respondents were having fair knowledge and awareness regarding prevalence, etiology, sign & symptoms and treatment of

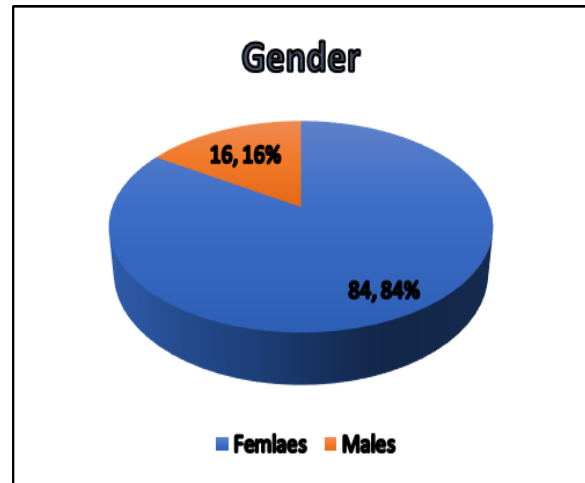


Table 1 Gender Distribution

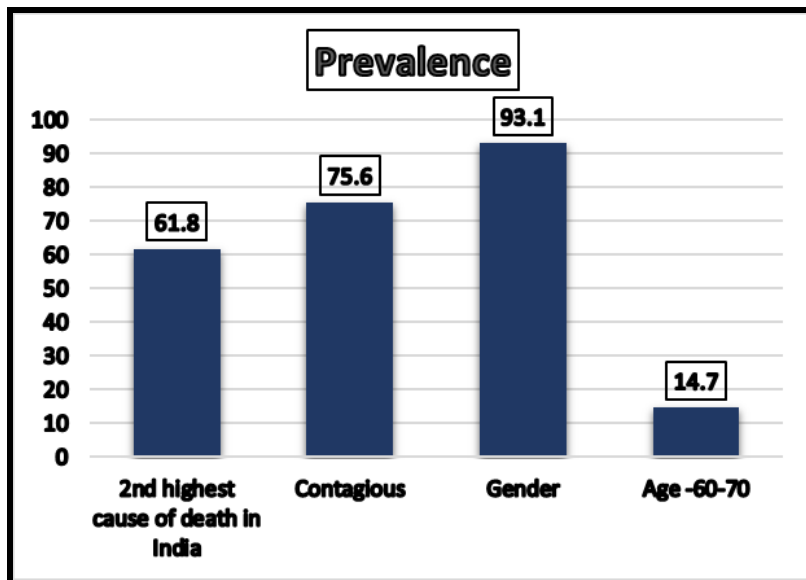


Table 2 Awareness about prevalence

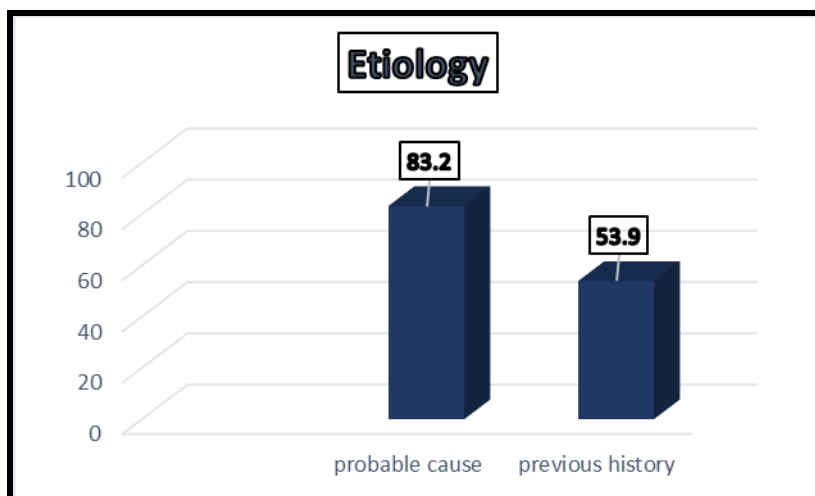


Table 3 Knowledge of causes of buccal mucosal cancer

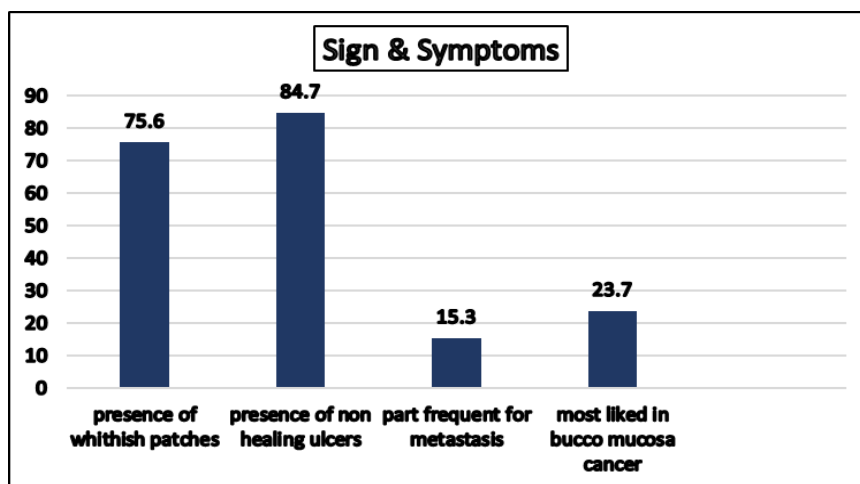


Table 4 Knowledge about Sign & Symptoms

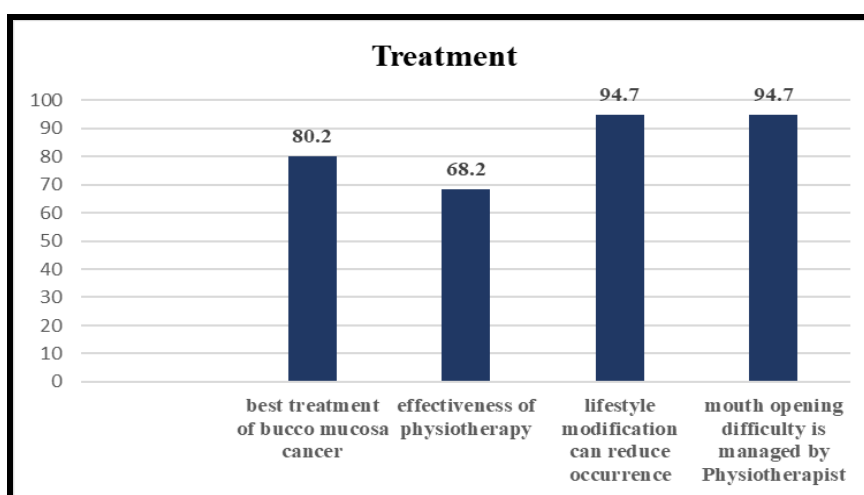


Table 5 Awareness about treatment

## DISCUSSION

The present study was conducted amongst physiotherapist to evaluate their knowledge and awareness related to buccal mucosal cancer. 60-70% of the therapist had fair knowledge related to buccal mucosal cancer. In the present study, 83.2% participants had knowledge about the causes of buccal mucosal cancer which is good as they can be made aware about the preventive measures. Knowledge is lacking amongst the vulnerable age criteria as only 14.3% opted for correct age group.<sup>[21]</sup>

This study shows that majority of the subjects (94.3%) were aware about the preventive way of buccal mucosal cancer which is giving advice on lifestyle modification like quitting of smoking /chewing tobacco reduces the occurrence. Therefore around 50-70% of participants

had basic level of knowledge of buccal mucosal cancer which is concern as knowledge about Prevalence, Signs & Symptoms, Aetiology, Treatment.

As a preventive measure, 23.1% of participants were knowing the most likely part of buccal mucosal cavity leading to cancer. About 15.3% were aware about increased frequency of metastasis which is Gingiva. Also 68.3% of participants were knowing effective role of physiotherapy in rehabilitation of buccal mucosal cancer patients.

75.6% of participants were aware about presence of whitish/reddish patch is related to buccal mucosal cancer so awareness needs to be spread regarding the age criteria and preventive measures as detecting the precancerous changes to cell

allows for intervention before buccal mucosal cancer develops.<sup>[25]</sup>

Study conducted Daniel & Hilary (2015) concluded that due to lack of awareness of symptoms in healthcare workers cases are increasing with delayed diagnosis.<sup>[16]</sup>

The study results imply that if physiotherapists do not receive education to increase their functional knowledge, understanding and importance of adapting lifestyle modifications then they may not be able to promote the preventive measures as well as treat their patients or in general population respectively.

## CONCLUSION

The healthcare providers must make sure that the healthcare professionals are informed about buccal mucosal carcinoma which will be beneficial step towards preventing, screening and treatment of buccal mucosal cancer.

## Clinical Implications

As buccal mucosal cancer is totally preventable, therefore the healthcare providers must make sure that the healthcare professionals are informed about benefits of screening and preventive methods which will be a step towards making sure buccal mucosal cancer do not increase.

## Future Scope

- The study can be incorporated into different age group
- Study can be done in general population

## Limitations

- Sample size is less
- The number of male and female participants aren't equal

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**Ethical Approval:** Approved

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