

# KNOWLEDGE, AWARENESS AND PRACTICE AMONG MEDICAL PRACTITIONERS ABOUT PERIODONTAL DISEASES IN TELANGANA STATE: A QUESTIONNAIRE STUDY

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## ABSTRACT

### Introduction

Periodontitis is a chronic destructive inflammatory disease which affects the periodontal tissues. These periodontal diseases not only effect the periodontal tissues but also have a role in affecting systemic health. There is a bidirectional relationship between the periodontal diseases and systemic health. Medical practitioners play an important role in early detection of oral health related to certain systemic diseases. The awareness among the medical practitioners remains under explored in many regions in India including the Telangana state.

### Aim

The study aimed at assessing the knowledge, awareness and practice among the medical practitioners about periodontal diseases in Telangana state.

### Materials and methods

A cross-sectional questionnaire study was conducted among the medical practitioners of various specialties in Telangana .A questionnaire structured with 22 questions which was distributed to the medical practitioners to evaluate knowledge, awareness and practice about periodontal health. Data was analysed with descriptive statistics.

### **Results**

In the results of the study, majority of the participants showed good awareness of periodontal diseases and its prevention, but limited knowledge of advanced regenerative therapy

### **Conclusion**

Medical practitioners have moderate to good awareness about periodontal diseases and its systemic associations. How ever there is a gap in understanding the advanced treatment modalities. Interdisciplinary education is necessary to understand and improve patient care.

**Key words:** awareness, knowledge, medical practitioners, questionnaire.

## **INTRODUCTION:**

Periodontal diseases are the chronic destructive inflammatory diseases which affect the periodontal tissues. There is an association between periodontal diseases and systemic health. Oral health is an important and integral part of general health<sup>1,2</sup>. Dental plaque biofilm has a major role in eventual progression of gingival diseases to periodontal diseases.

Majority of health connected complaints are taken care by the medical practitioners. They are the first caregivers for the majority of health-connected complaints along with that they play active roles in oral health promotion<sup>3</sup>. Various studies have shown the role of medical doctors in oral healthcare as the screening of oral diseases, emergency care and pain management is crucial.

Hence Knowledge and awareness about the periodontal diseases among the medical practitioners is essential to treat the patient effectively. Present study aimed at understanding the knowledge,

awareness and practice among the medical practitioners in Telangana state about periodontal diseases.

## MATERIALS AND METHOD

To know the level of knowledge and awareness among medical practitioners regarding periodontal diseases in Telangana state, A cross sectional study was carried out among medical practitioners in Telangana state. A sample of 123 medical practitioners in various specialties were included. The data collected by using questionnaire through google forms between 2019-2020. Ethical clearance was obtained by institutional ethical committee.

A specially designed questionnaire consisting of 22 questions was used to assess knowledge and awareness about periodontal diseases in medical practitioners. This questionnaire is shared among various medical specialties and the purpose of the study is explained. Inclusion criteria allowed inclusion of various medical practitioners.

The following questions were asked in Knowledge and awareness questionnaire

**TABLE-1(questionnaire)**

S.No	Question			
1.	Have you ever been to a dentist for treatment?	Yes	No	-
2.	If yes, who was your dental care provider?	General practitioner	Specialist	-
3.	Specialty or specialist dealing with gum diseases?	Prosthodontics. Oralpathologist. periodontist. Oral maxillofacial surgeon.	Don't know	-

		pedodontist. Public health dentist.		
4.	Do you know hormonal changes can causes changes in the gingival tissue?	Yes	No	Don't know
5.	Do pregnant women complains of problem in their teeth more often than other individuals?	Yes	No	Don't know
6.	Do you know the systemic diseases are related to oral diseases?	Yes	No	May be
7.	Are you aware that the diabetic patients are having more chances to get periodontal diseases?	Yes	No	May be
8.	Do you think heart diseases are associated with gum diseases?	Yes	No	May be
9.	Can genetic factor be a contributing factor for periodontal disease despite of good oral hygiene?	Yes	No	May be
10.	Are you aware that smoking leads to early tooth loss?	Yes	no	Don't know
11.	Can periodontal disease be a-risk factor in certain systemic conditions?	Yes	no	Don't know
12.	Do you think periodic visit to the dentist is mandatory to prevent periodontal diseases?	Yes	no	-
13.	If yes,visit to the dentist should be made in____?	2-3 months	6 months	1 year
14.	Are you aware that receded gums an be treated?	yes	no	May be

15.	Do you know that the swollen gums can be treated?	yes	no	-
16.	If yes,are you aware that the swollen gums are associated with medication used for certain systemic diseases?	yes	no	Don't know
17.	Are you aware that systemic antibiotics are delivered locally?	yes	no	May be
18.	Are you aware that bone powder/bone material used for regeneration of alveolar bone?	yes	no	Don't know
19.	Are you aware that PRP andPRF can be used for regenerative therapy in periodontal diseases?	yes	no	Don't know
20.	Do you know that the immune modulators are treatment of periodontal diseases?	yes	no	-
21.	Do you know that the lasers can be used in periodontal therapy?	yes	no	-
22.	Are you aware that implants are used for replacing lost tooth?	yes	no	-

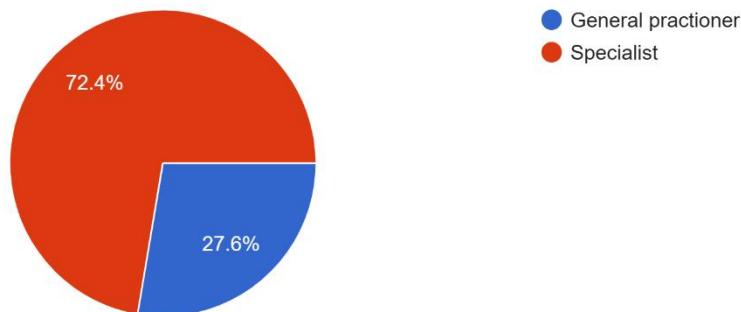
## RESULTS

In the first gender and qualification distribution of participants was noted.

In the questionnaire 70.7% of the participants have awareness towards the dental treatment. They approached dentist for treatment. Among them 72.4% respondents preferred specialists.65% of the participants have the knowledge that the periodontist deals with the gum diseases.

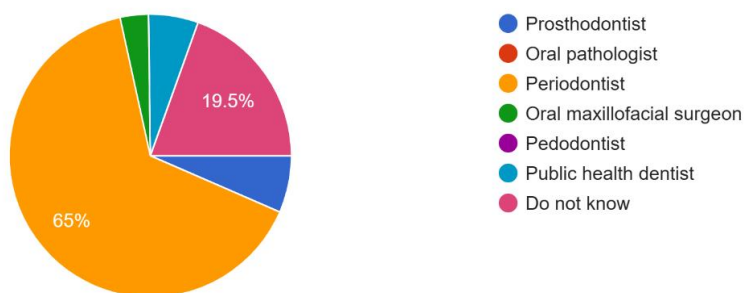
**Figure:1**

If YES, who was your dental care provider ?  
123 responses



**Figure:2**

Speciality or specialist dealing with gum diseases ?  
123 responses



74% of the participants aware that hormones have influence on gingival diseases and the hormonal changes cause changes in the gingival tissues. Where as 71.5% of medical practitioners have the knowledge that the pregnant women will complaints more about gingival problems rather than the normal individuals.

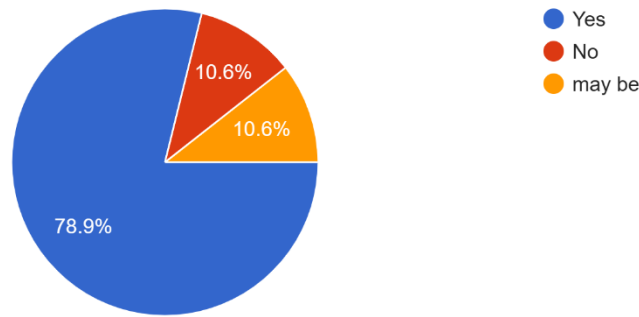
78.9% of participants are aware that systemic diseases are related to oral diseases. 77.2% of practitioners have knowledge that diabetics are more prone to periodontal diseases. 61% of the participants are aware that the cardio vascular diseases have associated with gum diseases.

59.3% of medical practitioners are aware that smoking leads to early tooth loss.69.9% of the participants are aware that periodontal diseases as a-risk factor for certain systemic diseases.

**Figure:3**

Do you know that systemic diseases are related to oral diseases ?

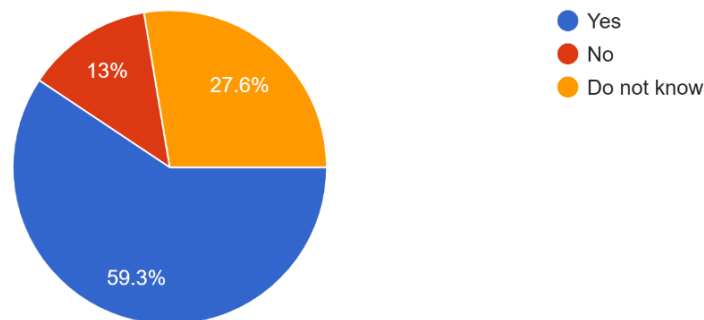
123 responses



**Figure:4**

Are you aware that smoking leads to early tooth loss ?

123 responses

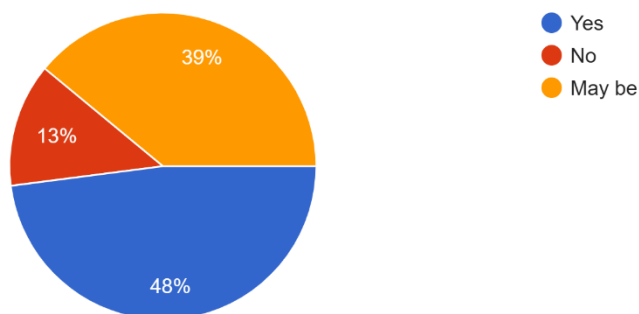


89.4% participants have a knowledge of periodic visit to the dentist is necessary to prevent the periodontal diseases. If it is the case then 52.8% of them said periodic visit for every 6months.

However Only 48% of the practitioners are aware that genetic factors as a predisposing factor for periodontal diseases despite of good oral hygiene.54.5% of medical practitioners are having the knowledge of treating receded gums.

**Figure:5**

Can genetic factor be a contributing factor for periodontal disease despite of good oral hygiene ?  
123 responses

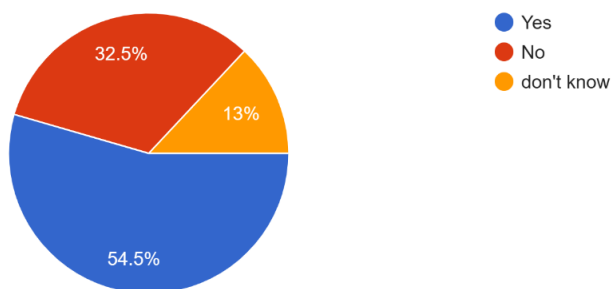


74.8% of them also have a knowledge of certain systemic diseases are associated with gingival enlargement. 88.6% of practitioners aware that the swollen gums can be treated.

60.2% are aware that systemic antibiotics delivered locally.54.5% have the awareness of using bone powder for regeneration.44.7% of the practitioners aware that PRP and PRF used for the regeneration therapy of periodontal diseases.

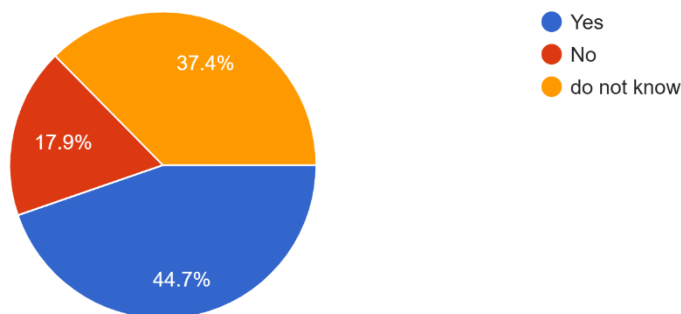
**Figure:6**

Are you aware that bone powder/bone material used for regeneration of alveolar bone ?  
123 responses



**Figure:7**

Are you aware that PRP and PRF can be used for regenerative therapy in periodontal diseases ?  
123 responses



70.7% of practitioners aware that the lasers are used in periodontal therapy. 91.9% of them are aware that implants are used in replacement of lost tooth.

## DISCUSSION

In the present study the participants had average knowledge regarding periodontal health. Oral cavity is described as window of general health<sup>4</sup>. Few studies have evaluated the attitude and behaviour of general medical practitioners towards the periodontal diseases<sup>5,6</sup>. usman et al conducted a Study among medical and para medical students regarding the knowledge about the oral health showed poor knowledge<sup>7</sup>. probable reason could be less clinical exposure of the medical students to the oral health problems.

The diabetes is the systemic disease which is having several complications including the periodontal diseases. The evidence suggest that there is a bidirectional relationship between diabetes and periodontal diseases<sup>8</sup>. Majority of the medical practioners are aware regarding the inter relationship between diabete and periodontal dseses.

Many recent studies have shown that there is correlation between the systemic diseases and oral health<sup>9</sup>. Periodontitis considered as a potential source of infection and is considered an important risk factor for various systemic diseases like cardio vascular diseases, respiratory, cerebrospinal

vascular diseases and low birth weight<sup>10</sup>. In our study half of the medical practitioners are aware of periodontal diseases In cardiovascular patients.

Many medical practitioners are not aware about the oral diseases. They do not recognize the potential infection that may exist within the oral cavity and its influence on systemic disease<sup>11</sup>. Most studies show that health science students had moderate level of knowledge about dental and periodontal diseases<sup>12</sup>.

The treatment modalities like using local drug delivery system, bone graft in regeneration of alveolar bone and PRP, PRF in regeneration in periodontal diseases, the medical practitioners have poor knowledge. Abid et al in his study he concluded that there is limited knowledge and awareness regarding the periodontal diseases and systemic health and its implications. so this gap must be filled with inter-professional education<sup>13</sup>.

## **CONCLUSION**

This study highlights a satisfactory level of awareness among medical practitioners in Telangana about periodontal diseases and their systemic associations. Although a majority of the medical doctors reported that they knew the relationship between periodontal disease and systemic health. It is important for primary medical care professionals to understand the relationship between periodontal disease and systemic disease to give appropriate assessment, prevention, and management of the health needs of the patient.

While basic knowledge is commendable, but need to improve understanding of advanced therapies and the multifactorial etiology of periodontal disease. Enhancing interdisciplinary training and promoting collaboration between medical and dental professionals will lead to better patient outcome.

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