

DENTAL TREATMENT NEED AMONG YOUNG PATIENTS BELONGING TO RURAL AREA: A CROSS SECTIONAL STUDY

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ABSTRACT:

Objective: The aim of this study was to estimate the current dental treatment needs and prevalence of habit of tobacco consumption among young adult patients residing in rural areas.

Materials and methods: A descriptive cross-sectional study was carried out on 785 patients (male-718 and female-67) with the age group of 16-25 years, studying in Industrial Training Institute, residing in villages of Gujarat state, India. Each subject has undergone type III oral examination. Data were collected and analyzed.

Results: Majority of patients were observed with periodontal problems and dental caries at different level and severity, with 88.4% requiring scaling and 53.3% requiring restorative procedures. 12.3% patients required orthodontic treatment. And, 22.9% of patients had habit of tobacco consumption.

Conclusion: Even though this survey was conducted among educated subjects, they showed lack of dental awareness. There is high need for motivation and guidance for oral health awareness and preventive dental treatment.

Keywords: Prevalence, Awareness, Treatment, Restoration.

INTRODUCTION:

More than 50% of India's population is under the age of 25. By 2020, India will have one of the youngest populations in the world, with an average age of 29 years [1]. Population in the age limit of 15-25 years is considered to be a healthy population with low mortality rate and fewer health problems. This group of people also use least amount of health services and are prone to exposure to many health related risk factors. However,

dental health remains one of the most neglected part of overall health care needs.

Poor dental health reduces quality of living. Pain in teeth due to dental caries, gingival diseases due to plaque accumulation, difficulty in chewing, missing teeth and poor aesthetics due to malocclusion are a hindrance in day to day activity of people. Dental diseases have a huge impact on overall general health of a person too. And, oral health is further

deteriorated by habit of tobacco consumption. Dentist plays an important role in prevention and treatment of oral diseases. There has been a steady rise in number of dentist in urban areas but still there is a marked difference in number of dentist available in rural areas. At present the dentist-population ratio in India is 1:30000 and India has one dentist per 10,000 people in urban areas and one dentist per 2.5 lakh people in the rural areas [2]. Thus, there is a huge difference among dental services available in urban and rural areas.

Although many studies have been carried out from time to time to assess the knowledge and behaviour of people about oral health, there is still a dearth of education regarding the same especially for rural people, who make up for more than 70% of the population in India [3]. General education received by population helps them to understand better about their health issues. But somehow even after receiving higher secondary level of education people fail to understand the importance of oral health.

The aim of this survey was to

1. Estimate the current dental needs among a group young adult patients (16-25 years) residing in rural area.
2. Estimate which dental treatment needed maximum concern.
3. Prevalence of tobacco consumption habit among them.

MATERIAL AND METHODS:

785 patients (male-718 and female-67) with the age group of 16-25 years, studying in Industrial Training Institute, residing in villages around Nadiad city of Gujarat state, India were selected for the study. The survey was carried out during free dental check-up camps, organized by Faculty of Dental Science, Dharamsinh Desai University, Nadiad. Informed consent was taken prior to initiating the survey from each subject. Patients were offered free dental treatment at Faculty of Dental Science, Dharamsinh Desai University, Nadiad.

Type III: Inspection, using mouth mirror and explorer and adequate illumination was performed [4]. Recording procedure was standardized and investigators were calibrated in order to minimize intra-examiner variability. All examiners were trained at Department of Public Health Dentistry prior to the survey. Individuals recorded in the study were randomly selected after few hours, re-examined and result compared to keep constant check on recording.

Patients were assessed for need of radiographical examination for further investigation of the dental disease. Subjects were assessed for presence or absence of dental caries based and its degree of severity. Accordingly subjects needing restoration, root canal or extraction as treatment were categorized. Other surgical procedures including disimpaction or supernumerary tooth removal were also categorized. This was followed by examination for presence or

absence of dental plaque and calculus. Based on the severity, subjects were classified as those needing scaling and those needing further periodontal therapy. Assessment for need of prosthesis for replacement of any missing teeth was also performed. Followed by assessment for orthodontic treatment need. All the data was calculated and analyzed.

RESULT:

Out of 785 subjects, males (718) were significantly more than females (67). Highest number of patients required scaling treatment i.e. 88.4%. Second highest number of subjects needed restorative therapy i.e. 53.24%. 12.35% subjects needed orthodontic treatment. Based on advanced destructive oral diseases, 8.28% subjects needed endodontic therapy, 5.09% required extraction and 0.25% required periodontal therapy and 0.63% subjects needed other surgical methods for treatment. 1.27% subjects needed prosthetic treatment. 15% needed to undergo radio graphically examination like IOPA or OPG for further investigation and detailed examination which could not be done under clinical examination. When asked 22.92% of subjects were affirmative of having tobacco consumption habit in various forms. And, 3.18% of subjects did not require any dental treatment. (figure1)

DISCUSSION:

Oral Health is an integral part of general health. Although of immense importance, oral health remains to be neglected. This survey was conducted to understand the

prevalence of dental diseases in young population residing in rural areas who had completed high school education. But still, they showed lack of awareness and utilization of available dental services. Cases are reported to dentist only after experiencing pain or sensitivity. Dental treatment modalities are developing immensely. But, its lack of usage and how to overcome this unawareness should be our goal.

Dental caries and periodontitis are two of the most salient oral health diseases among worldwide and have existed right through the ages^[5].

- Our study showed that maximum numbers of patients were diagnosed with gingival diseases with 88.4% of subjects requiring scaling and 0.25% of subjects requiring further periodontal therapy because of advanced destructive lesions and/or anatomical defects. According to the consumer usage and attitudes study done in 2010, among the most shocking of revelations is that nearly half of the Indian population does not use a tooth brush and only 51% brushes their teeth using a tooth brush and toothpaste^[6]. Thus, there is a strong need to make population aware about importance of oral hygiene maintenance, how important brushing twice daily will reduce occurrence of gum diseases and tooth decay, as supported by study of Selva Kumar J et al^[7]

where 69% of subjects who brush once daily had increasing frequency of tooth loss and gum disease as compared to 29% subjects who brush twice daily.

This study showed that the second most common dental disease among the subjects was dental caries. With 53.24% of subjects requiring restorative procedures and 8.28% of subjects requiring endodontic procedures. Even though there is high caries prevalence among these subjects, they have failed to seek any dental treatment for the same. In a study conducted by Selva Kumar J et al [7] 78% of population notice decayed teeth only after noticing pain and sensitivity, 54% of surveyed samples are ignorant of various conservative modalities to save tooth other than extraction and just 7% were familiar with root canal treatment.

Subjects in our study belonged to age group of 16-23 years. 1.27% required prosthesis, which ideally in this age should be zero. In a study conducted by Jamileh et al [8], prosthesis status for subjects of age 15-19 years was 1.1%.

12.37% of subjects in our study required orthodontic treatment. In a similar study conducted by Patil et al [9] the prevalence of malocclusion by was 21.6% among age group of 17-19 years.

22.92% of subjects when asked were positive about having tobacco consumption habit in various forms. In a similar study conducted by Pandya et al [10], within the age group of 9-15 years,

5.09% of children had habit of gutka chewing.

Instead of focusing more and more towards advancement of mechanical based clinical protocols, we should focus on developing dental awareness and educating population about importance of oral health. In order to identify and control this, we need to change the socio-economical norms that are prevalent among the population about oral health. Most of the subjects in our study were unaware of their own dental treatment need. Neither they notice non painful symptoms of oral diseases nor had they visited any dental services. When free dental check up camp is offered, patients recognize their oral health status. Still, a question remains is that how many of them would actually undertake dental treatment which they require.

CONCLUSION:

This study has shown that, unmet treatment need among young rural population is high. There was a huge mass of unrecognized oral diseases among which maximum number of patients required restorative procedures and scaling. Prevalence of tobacco consumption habit was high. Common trend present in rural areas is "Visit dentist only when unbearable pain persists". However, in most of the cases, once a dental disease starts, it slowly starts destroying and does not undergo remission on its own. Thus, both private and public sector should make a joint effort to raise awareness more towards preventive dentistry. Routine dental

check up is very important to identify dental disease at an early stage and control them in order to uplift oral health

and general health and thus, quality of life.

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FIGURES:

Figure 1:

