



CURB BEFORE IT BLOOMS: REVISING THE ROLE OF PERIODONTIST

Dental Science

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ABSTRACT

Periodontitis is a common dental disease affecting a vast majority of population presenting as major challenge to national economy. Traditionally its prevention is based on enforcing Oral hygiene measures. This short communication suggests various modern approaches along with the traditional methods in the prevention of periodontitis.

KEYWORDS

Periodontitis, Prevention, Oral Hygiene, Tooth Brushing

INTRODUCTION

Periodontitis is chronic inflammatory disease characterized by alveolar bone loss and attachment loss and is a leading cause of tooth loss. It is the sixth most common disease affecting 11.2% humans worldwide.¹ WHO Global Health Data Bank indicates its high prevalence rate and therefore represents a major public health problem.^{2,3}

It is estimated that it is the *fourth most expensive* condition to treat in industrialized countries. Based upon Community Periodontal Index of Treatment Needs (CPITN) estimates among children in Kenya, the costs *involved would exceed the total national health care budget for the country*.⁴ Kudva PB (2016) The incidence and prevalence of periodontal diseases in India is considerably high leaving a large portion of the population with a compromised quality of life.⁵ Petersen & Ogawa (2012) highlighted the global burden of periodontal disease and made a case for also integrating prevention of periodontal disease into chronic disease prevention and control. The data presented indicated that severe periodontal destruction affected between 10% and 15% of adult populations.⁶ Albandar and Rams(2002) in an overview concluded that subjects of Asian ethnicity had the third highest prevalence of periodontitis.⁷

Under the Government of India and World Health Organization collaborative program on oral health in the year 2004, conducted a survey in order to determine a baseline data of the burden of oral diseases and associated risk of the population for four index age groups, viz., 12, 15, 35-44 and 65-74 years. This survey was conducted in 7 different geographical locations in India, viz., Arunachal Pradesh, Delhi, Maharashtra, Puducherry, Rajasthan, Orissa and Uttar Pradesh surveying a total of 22,400 persons in rural and urban areas of the selected districts. In the 35-44 years and 65-74 years age groups, high prevalence (100%) of periodontal disease was reported from few of the states (Orissa, Rajasthan) in this study. The prevalence of loss of attachment (3 mm or more) was 78% in the 35-44 years group and 96% in 65-74 years group in Maharashtra. The prevalence of attachment loss of >3 mm in the 35-44 years group was highest in Maharashtra (78%), followed by Orissa (68%) and Delhi (46%). The rest of the centers had prevalence ranging between 15% and 33%. The prevalence of loss of attachment was significantly higher in the 65-74 years group as compared to the 35-44 years group. The highest prevalence in 65-74 years group was recorded in Maharashtra (96%), followed by Orissa (90%), Delhi (85.5%), Rajasthan (75%), Uttar Pradesh (68%) and Puducherry (55%). Arunachal Pradesh recorded the lowest prevalence, viz., 20%. The general trend observed for loss of attachment was that it was higher in the rural than in the urban population and was higher in males as compared to females.⁸

TRADITIONAL Vs MODERN APPROACH

Prevention of periodontal infection is a complex and integrated process. It includes obtaining individuals detailed medical and dental history, evaluation of habits, risk assessment, patients values and expectation. It is recognised that dental biofilm is the main local cause of gingivitis and periodontitis thus prevention of these conditions had focused mainly on traditional dental plaque control measures. Longitudinal studies show that dental and periodontal diseases can be

prevented with high standards of oral hygiene.⁹ A consensus statement from a European Workshop in 1998 on mechanical plaque control reads "...effective removal of dental plaque is essential to dental and periodontal health throughout life".¹⁰

In Practice prevention of periodontal disease stressed on the traditional methods of Dental plaque control consisting of instruction and demonstration of proper toothbrushing method, followed by recommendations on the frequency and time of brushing. But overtime we realised that the *IMPACT of traditional education was NOT OPTIMAL*.

However, there are certain shortcomings in the traditional approach:

- Has a limited effect on patient behaviour and adherence to preventive recommendations.
- The effects are, at best, transient and of short duration.
- The patient is encouraged to perform proper oral hygiene but at the same time is not provided with a clear, measurable objective.
- Does not integrate the socioeconomic and behavioural dimensions of the patient.

As a result, the approach fails to achieve sustainable improvements in oral health. Watt & Petersen (2012) made a case for the prevention and control of periodontal disease through oral health promotion. They reported that a sizable proportion of the global population is affected by periodontal disease, which is particularly prevalent amongst socially disadvantaged populations.⁴ Thus Professional treatment and a traditional chair-side preventive approach alone would never adequately address this problem.

PATIENT CENTERD APPROACH

The current trend in patient care is to move from the biomedical model of disease to modern principles of comprehensive care characterized by a patient-centered approach. The central point is the patient with his /her perceived needs, demands, expectations and values. (Fig. 1)

Psychological And Behavior Change Strategies: Today, preventive interventions are evolving to more complex educational programs involving *psychological and behavior change strategies*. Patients themselves become their "own principal care-givers". They should be empowered for Oral self care. The Periodontist becomes a counsellor who supports patients in making decisions about self-care measures and gaining the necessary therapeutic skills. The patient and the Periodontist share the responsibility for identifying and solving the problems. Thus, in the intervention on plaque control, attention should be given to delivering the amount of information and choice of appropriate language. For instance, instead of using term "Oral Hygiene" the understanding of term "Plaque removal" seems more appropriate.

Motivational interviewing: Motivational interviewing is a person-centered, goal- directed method of communication for eliciting and strengthening intrinsic motivation for positive change. As such, the motivational interviewing counsellor must be willing to hear, accept and respond to a patient's personal perspective rather than recite a predetermined set of prescribed instructions.

11th European workshop on Periodontology consensus conference¹¹ laid down the following steps in Public Health Approach.

1. A need to communicate to the public the critical importance of gingival bleeding as an early sign of disease.
2. The need for universal implementation of periodontal screening by the oral health care team.
3. The role of the oral health team in health promotion and primary and secondary prevention.
4. Understanding the limitations of self-medication with oral health care products without a diagnosis of the underlying condition.
5. Access to appropriate and effective professional preventive care.

CONCLUSION

The concepts presented here are not new, but we all have been reluctant to recognize them. The 21st century expects us to do better, and more. Let us now strive as a professional society and as individual clinicians and researchers to embrace the century's challenges and opportunities. Then, our efforts will have positive impacts on public health that extend far beyond our specialized field.

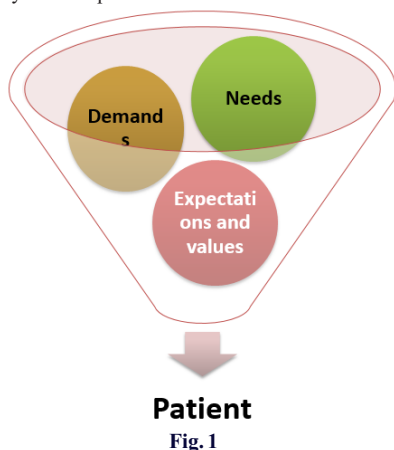


Fig. 1

REFERENCES

1. Manohar B, Humagain M. Periodontal disease-Is prevention possible? Kathmandu Univ Med J. 2018;64:275-276.
2. Global oral health data bank. Geneva: World Health Organization; 2004.
3. Petersen PE, Bourgeois D, Ogawa H, Estupinan-Day S, Ndiaye C. The global burden of oral diseases and risks to oral health. Bulletin of the World Health Organization 2005;83:661-669.
4. Watt RG, Petersen PE. Periodontal health through public health – the case for oral health promotion. Periodontology 2000. 2012;60:147–155.
5. Kudva PB. “The era of prevention:” Prevention is better than cure. J Indian Soc Periodontol. 2016;20:2.3.
6. Petersen PE, Ogawa H. The global burden of periodontal disease – towards integration with chronic disease prevention and control. Periodontol 2000. 2012 Oct;60(1):15–39.
7. Albandar JM, Rams TE. Global epidemiology of periodontal diseases: An overview. Periodontology 2000. 2002;29:7–10.
8. Shaju JP, Zade RM, Das M. Prevalence of periodontitis in the Indian population: A literature review. J Indian Soc Periodontol. 2011 Jan;15(1):29–34.
9. Axelsson P, Nystrom B, Lindhe J. The long-term effect of a plaque control program on tooth mortality, caries and periodontal disease in adults. Results after 30 years of maintenance. J Clin Periodontol. 2004 Sep;31(9):749–757.
10. Baehni PC. Translating science into action – prevention of periodontal disease at patient level. Periodontology 2000. 2012;60:162–172.
11. Tonetti MS, Chapple ILC, Jepsen S, Sanz M. Primary and secondary prevention of periodontal and peri-implant diseases-Introduction to, and objectives of the 11th European workshop on periodontology consensus conference. J Clin Periodontol. 2015;42(Suppl. 16):S1–S4.