

Knowledge, Behavior, and Attitude of Geriatric Population towards Periodontal Esthetic in and around Bareilly District, Western Uttar Pradesh, India

Ashish Agarwal¹ and Nitin Rastogi²

¹Department of Periodontics, Institute of Dental Sciences, Bareilly, Uttar Pradesh, India

²Department of Prosthodontics, Institute of Dental Sciences, Bareilly, Uttar Pradesh, India

Correspondence should be addressed to Ashish Agarwal, drashish.aag@gmail.com

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Abstract This study aims to identify the knowledge, behavior, and attitude towards periodontal esthetics in geriatric population. 4550 questionnaire were distributed to the geriatric patients (age 60-70 yrs) education level at least graduation, for assessing their views about periodontal esthetic in Institute of Dental Sciences, Bareilly. Patients were asked about impact of periodontal condition on overall smile esthetic, satisfaction for own periodontal esteem, knowledge about deteriorating factors, heard about treatment, requirement for therapy, and limiting factor for treatment. The study evaluated 4060 responses, total 92% (58% female, 42% male) respondent agree about correlation of periodontal esthetic to overall smile, 60% (67% female, 53% male) were dissatisfied with their periodontal esthetic, black triangles (43%) and gingival recession (39%) recognized as the main smile enhancer condition, 31% respondents heard about periodontal esthetic treatment, 75.5% patients showed interest to take treatment. Treatment not necessary (14.9%), cost (37.9%) and lower success rate (47%) were found to be the common barriers for periodontal esthetic treatment. Knowledge and awareness concerning periodontal disease is still poor in and around Bareilly district, therefore, more dental health education is needed to improve oral health.

Keywords *Geriatric Patients; Gerodontology; Periodontal Esthetic; Periodontal Esthetic Surgery*

1. Introduction

In commercialize 21st century every generation wants to improve their self-esteem due to social appearance. "Smile makeovers" are considered to be hallmark for maintain psychologic, physical, and mental well-being. Periodontal tissues remain critically significant for overall smile esthetic, due to this various periodontal treatment options are developed for improving the periodontal tissue esthetic [1]. Older adults present special problems for the dentist trying to establish or reestablish periodontal esthetics because attachment loss from periodontal diseases increases with age [2, 3]. Besides this

the profession has also begun to place more emphasis on systemic risk factors, and geriatric psychology and their role in modifying periodontal esthetic.

As far as esthetic enhancing procedures are considered as technique sensitive procedures, dentist have to concern with the emotional and psychological state of the patient, for it is an essential component of treatment and the success of the treatment often depends on the emotional state of the patient [4, 5]. It is thus important for the dentist to be aware of practical - problem - oriented approach that helps in patient management and in maintaining and improving dental health as part of total healthcare services available to the elderly [2, 3, 6].

Geriatric individuals do not supposed to enroll these kinds of case selective procedures, but this article demonstrated that older individuals are also in requirement for periodontal tissue enhancement protocol and due to this new technique should also develop which can give higher success rate even in moderate to severe attachment loss case as present in old age.

The purpose of this study was to make an assessment about the knowledge, behavior, and attitude of geriatric patient population towards periodontal esthetic treatment.

2. Materials and Methods

4550 geriatric patients (age 60-70 years) came for routine dental checkup were enrolled for this questionnaire based study in the department of periodontology, Institute of dental sciences, Bareilly. The study sample included 2340 males (51.4%) and 2210 (48.5%) females. Inclusion criteria was patients have complete set of well alignment maxillary and mandibular teeth, did not previously treated for periodontal reasons, and education level of respondent should be at least graduation. The questionnaire was prepared by mutual discussion among the experienced periodontal surgeons. Questions were regarding to patient knowledge, satisfaction, understanding the condition, self-assessment for etiology, motivation for treatment options, and barrier for treatment. Questionnaire has been attached as an appendix. For each question, independent percentage was calculated to determine the frequency of the responses.

The study was properly reviewed, and approved by the ethical committee of Institute of Dental Sciences. Every individual was explained about the purpose of this study and the procedures that would be followed during its conduct. All subjects were requested to complete a comprehensive questionnaire (Appendix) adopted from.

3. Results

Total 4060 (89.2%) individual gave response to the questionnaire. In this females were 2010 (91%), and males were 2050 (88%). 3737 (92%) patients were agreed about the correlation of periodontal esthetic to the overall smile. Females (67%) were more dis-satisfied to their periodontal esthetic than male respondent 53%. This shows more consciousness of female to the physical appearance. Black triangle (43%) considered as the main culprit followed by gingival recession (39%), hyperpigmentation (11%), and gummy smile (9%) for making smile less impressive. 31% individual had heard about periodontal esthetic therapy. 82% patients were interested for taking treatment for these kind of problems in which 75.6% were females and 69% were males. Lower success rate 47%, cost 37.9%, and treatment not necessary 14.9% assessed as limiting or deciding factor for periodontal esthetic surgery. Table 1 shows the demographic data, and Table 2 demonstrated the response towards questions.

Table 1: Demographical Details of Involved Population

Total Sample (n) 4550	Total Response 4060 (89.2%)
Male-2340(51.4%)	Male-2050 (87.5%)
Female-2210 (48.5%)	Female-2010 (91%)

Table 2: Responses towards Questions

Agree about correlation of periodontal esthetic to overall smile	3735 (92%) Male 1569 (42%) Female 2166 (58%)
Dissatisfied by their own periodontal esthetic	2432(60%) Male 1086 (53%) Female 1346 (67%)
Deteriorating factors	Black triangle 1746 (43%) Gingival recession 1584 (39%) Hyperpigmentation 415 (10.2%) Gummy smile 315 (7.7%)
Heard about periodontal treatment	1258 (31%)
Interested in taking treatment (having or will suffering in future with any kind of periodontal esthetic problem)	3063 (75.5%) Male 1415 (69%) Female 1648 (82%)
Limiting factors	Treatment not necessary 605 (14.9%) Cost 1539 (37.9%) Lower success rate (47%)

4. Discussion

The high number of collected questionnaires confirms the strong interest shown by seniors for dental esthetics, particularly from women. 1346 females respondents (67%), and 1086 male (53%) were dissatisfied with their own periodontal outlook for a perfect smile this shows females give more emphasis to attractive smile. Black triangle (43%), followed by gingival recession (39%), hyperpigmentation (10.2%), and gummy smile (7.7%) was considered as the major deteriorating factor for periodontal esthetic. 3063 (75.5%) respondent were interested in taking esthetic surgery. The main limiting factor for treatment was lower success rate (47%) followed by cost (37.9%), and treatment not necessary (14.9%).

The World Health Organization (WHO) documents that although the global population is growing at a rate of 17% annually, the aged population is budding at a rate of 30% which implies that people over 60 years of age are outrunning young children below 15 years of age [7]. These analyses propose that there is a boom in the geriatric population, and periodontal diseases are common in older adult through the world [8, 9, 10, 11, 12]. This improved life expectancy is as a result of greater health awareness, accessibility, affordability and acceptability of improved medical care. This in turn implies that the need and demand for dental care is expected to upsurge tremendously in the coming years [13, 14, 15]. A strong trend that will continue well into the 21st century is the esthetic practice. In higher affluence condition peoples not only give emphasis to their oral health, but also to attractive smile for their self-esteem and its social advantages [16, 17]. So the question is do we possess the required knowledge, skill, patience, empathy, sympathy and time to treat this special group of patients?

Generally periodontal esthetic surgery is not considered as a suitable goal in case of moderate to advance clinical attachment loss as present in geriatric patients. So older patients are not suitable cases for these kinds of case sensitive surgeries, but with the light of this study we can say that with

increasing demand of gerodontology, periodontist also have to develop new and advanced techniques for same kind of surgeries for fulfillment the demand of this special kind of population. With this survey we tried to make an assessment about the mental status of geriatric population for this kind of delicate surgical procedure, so that we can develop new options that have more versatility about case selection criteria, cost effectiveness, and higher success rate.

Generally the people think that the importance of appearance decreases with age, and it becomes a second priority, with attention more focused on general health. But this study set the new criteria about the senior's increasing interest in physical well-being. This study demonstrated that older individual also wants to improve their dental esthetic; black triangle and gingival recession consider as the main deteriorating conditions as far as smile is concern. As the present time available surgical therapy for interdental papilla reconstruction, and root coverage procedures are more successful in mild destruction of periodontal tissue due to this older patient remain devoid from the advantages of treatment. With increasing the demand in older individual, clinician has to discover new techniques that will more suitable according to the geriatric periodontal condition. As we see patients have concern about lower success rate (47%), and treatment cost (37.5%) as a hindering factor for esthetic surgery. Only 17% people consider it as a not necessary treatment. This shows high willingness in such treatment. Relatively few respondents (31%) have heard about periodontal esthetic surgeries yet majority of individual (75.5%) were interested in taking treatment. This shows positive attitude of patients towards these kinds of surgeries but there is unawareness about periodontal esthetic procedures.

5. Conclusion

This article briefly summarizes changes in the dental patient population for periodontal esthetic surgical procedure, and how these changes will require dentists to stay current with new technologies and scientific advances. Successful dental practices in the 21st century will need skills to treat an older and more culturally diverse patient population. In addition, the treatment choices should offer patients the opportunity to improve their self-esteem.

None study have been made in the literature dealing with same kind of question with geriatric population. This study set the new goal about the future perspective of periodontal esthetic surgeries with the expectation that in upcoming years most of the older patients will take advantages from new versatile esthetic surgical therapy.

References

- [1] Douglass, C.W., and Sheets, C.G. *Patients' Expectations for Oral Health Care in the 21st Century*. Journal of American Dental Association. 2000. 131; 3-7.
- [2] Joshi, A., Douglass, C.W., Jette, A., and Feldman, H. *The Distribution of Root Caries in Community-Dwelling Elders in New England*. Journal of Public Health Dentistry. 1994. 54; 15-23.
- [3] Thomson, W.M., Slade, G.D., Beck, J.D., Elter, J.R., Spencer, A.J., and Chalmers, J.M. *Incidence of Periodontal Attachment Loss Over 5 Years among Older South Australians*. Journal of Clinical Periodontology. 2004. 31; 119-125.
- [4] Patil, M.S., and Patil, S.B. *Psychological and Emotional Considerations during Dental Treatment*. Gerodontology. 2009. 26; 72-7.
- [5] Douglas, D., Berkley, D., Robert, G., and Lettinger, B. *The Old Dental Patient- The Challenge of Clinical Decision Making*. Journal of American Dental Association. 1996. 20; 321-32.

- [6] Boehm, T.K., and Scannapieco, F.A. *The Epidemiology, Consequences and Management of Periodontal Disease in Older Adults*. Journal of American Dental Association. 2007. 138; 126-33.
- [7] Nadig, R.R., Usha, G., Kumar, V., Rao, R., and Bugalia, A. *Geriatric Restorative Care - The Need, the Demand and the Challenges*. Journal Conservative Dentistry. 2011. 14; 208-214.
- [8] Levy, S.M., Warren, J.J., Chowdhury, J., et al. *The Prevalence of Periodontal Disease Measures in Elderly Adults, Aged 79 and Older*. Special Care in Dentistry. 2003. 23; 50-7.
- [9] Mack, F., Mojon, P., Budtz-Jorgensen, E., et al. *Caries and Periodontal Disease of the Elderly in Pomerania, Germany: Results of the Study of Health in Pomerania*. Gerodontology. 2004. 21; 27-36.
- [10] Hirotsomi, T., Yoshihara, A., Yano, M., Ando, Y., and Miyazaki, H. *Longitudinal Study on Periodontal Conditions in Healthy Elderly People in Japan*. Community Dentistry and Oral Epidemiology. 2002. 30; 409-17.
- [11] Chalmers, J.M., Hodge, C., Fuss, J.M., Spencer, A.J., and Carter, K.D. *The Prevalence and Experience of Oral Diseases in Adelaide Nursing Home Residents*. Australian Dental Journal. 2002. 47; 123-30.
- [12] Kiyak, H.A., Grayston, M.N., and Crinean, C.L. *Oral Health Problems and Needs of Nursing Home Residents*. Community Dentistry and Oral Epidemiology. 1993. 21; 49-52.
- [13] Naseem Shah. *Teaching, Learning, and Assessment in Geriatric Dentistry: Researching Models of Practice*. Journal of Dental Education. 2010. 74; 20-8.
- [14] Hebling, E., Mugayar, L., and Dias, P.V. *Geriatric Dentistry: A New Specialty in Brazil*. Gerodontology. 2007. 24; 177-80.
- [15] Naseem Shah. *Oral Health Care System for Elderly in India*. Geriatrics & Gerontology International. 2004. 4; 162-164.
- [16] Wulfman, C., Tezenas, M.S., Jonas, P., Fattouh, J., and Rignon-Bret, C. *Aesthetic Demand of French Seniors: A Large-Scale Study*. Gerodontology. 2010. 27; 266-71.
- [17] Locker, D., Slade, G.D., and Murray, H. *Epidemiology of Periodontal Disease among Older Adults: A Review*. Periodontology. 1998. 16; 16-33.

Appendix

Questionnaire

1. Do you agree about the correlation of periodontal esthetic to overall smile esthetic?
 - Yes/No
2. Are you satisfied to your periodontal esthetic?
 - Yes/No
3. Which of the following may be the main deteriorating factor for periodontal esthetic-
 - Black triangle
 - Gingival recession

- Hyperpigmentation
- Gummy smile

4. Have you heard about periodontal esthetic surgical procedure?
 - Yes/No
5. Are/will you interested in taking the treatment for improving the periodontal esthetic.
 - Yes/No
6. Which of the following may be the limiting factor for periodontal esthetic surgical procedure?
 - Treatment not necessary
 - Cost
 - Lower success rate