

An Assessment of Priorities and Treatment Needs of Partially Edentulous Patients Seeking Prosthodontic Treatment

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ABSTRACT

Background: To assess patient's priority while seeking prosthodontic treatment in partially edentulous situations. The null hypothesis states that there is no significant difference between the treatment needs and preferences of partially edentulous patients seeking Prosthodontic treatment based on age and gender.

Materials and methods: In this study, 100 partially edentulous patients, including both males and females, were randomly selected. The details were first explained to each patient and written informed consent was obtained in a language which the patient can read and understand. The patients were then administered with a comprehensive questionnaire which focused on assessing their main priority for the respective treatment. The data was collected, compiled in tabulated form and analyzed on the basis of age and gender distribution.

Results: The patients below forty years of age, primarily females were more concerned about their aesthetics and preferred natural-looking teeth in comparison to patients above forty years of age who preferred better mastication and were also concerned with the expenditure of the prosthesis.

Conclusion: Determining the patient's priority and treatment needs is of great importance for a successful prosthodontic treatment outcome.

Keywords: Partial Denture, edentulous, prosthodontics.

INTRODUCTION

Teeth play a significant part in the maintenance of a healthy personality and a positive self-image. Patients may suffer real or perceived detrimental effects following the loss of one or more teeth which substantially reduces the quality of life affecting the patient emotionally, socially, physically and psychologically.¹

Prosthodontic treatment involves the replacement of few missing teeth, the functional replacement of nearly all teeth in a badly damaged dentition, or restoring function by means of the removable or

fixed prosthesis, implants, complete dentures, or over-dentures.² With the advancements and increasing knowledge in dentistry along with the improvement in maintaining oral health, globally, a higher number of people tend to retain all or most of their natural teeth through life.³

Besides technical excellence, today's prosthodontic protocols address multidimensional aspects of health care, such as improvement in the quality of life, the effectiveness of an intervention and cost-effective goals. The patients' subjective perceptions

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are important indicators of treatment needs and may complement clinical conventional measures.⁴ The patients have varied needs which are not limited to the functional aspect of the problem. Therefore, deciding the priorities while planning a treatment strategy based on the treatment needs is very important for patient cooperation and a successful treatment endeavour.⁵

With increasing knowledge and awareness, the patients' priority and need have changed. Hence, a study was conducted to assess the priorities of the patient be it better aesthetics, mastication or phonetics as priorities depend on various factors such as age, gender, socioeconomic status and patients behaviour and psychology.

The purpose of this study was to assess the patient's priority while seeking prosthodontic treatment in partially edentulous situations. The null hypothesis states that there is no significant difference between the treatment needs and priorities of partially edentulous patients seeking Prosthodontic treatment based on age and gender.

MATERIALS AND METHOD

This was a cross-sectional questionnaire-based study carried out in the Department of Prosthodontics and Crown & Bridge-work and Oral Implantology, Faculty of Dental Science, Dharmsinh Desai University, Nadiad. 100 partially edentulous patients including both males and females, were randomly selected. Patients with unrealistic patient expectations, congenital defects, neurologic or psychiatric disorders were excluded. The details involved in the procedure were first explained to each patient and written informed consent was obtained in a language which the patient can read and understand. The patients were then administered with a comprehensive questionnaire which focused on assessing their main priority for the respective treatment. The questionnaire included their main problem; their treatment needs to be followed by the priority of the treatment and requirement of the type of replaced teeth. The data was collected and segregated on the basis of age and gender distribution. The patient pool was divided into two main groups. Firstly on the basis of age, with group 1 comprising of patients above the age of 40 years and group 2 comprised of patients below the age of 40 years. Each group was then

divided into two sub-groups, based on gender. Here sub-group "a" comprised of male patients and sub-group "b" comprised of female patients.

The data was collected, compiled in tabular form and statistical analysis (t-test) was carried out.

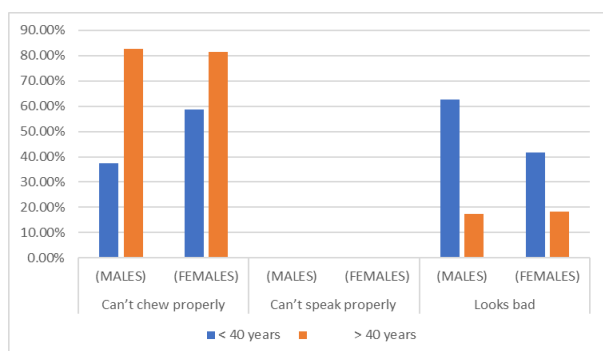
RESULTS

Illustration I shows the distribution according to the main complain or problem faced by the patients, based on gender and age. The calculated percentage of male patients who can't chew properly and be below 40 years of age was 37.5% and that of females below the age of 40 years with the same complaint was 58.82% whereas for patients above the age of 40 it was 82.76% and 81.58% for males and females respectively. None of the patients surveyed had speech as their main complaint (0%). The calculated percentage of patients who complained about aesthetics who were below 40 years of age was 62.5% males and 41.76% females and above 40 years of age, 17.24% males and 18.42% females complained about aesthetics. There was an statistical significant difference seen in patients based on the gender and age distribution.

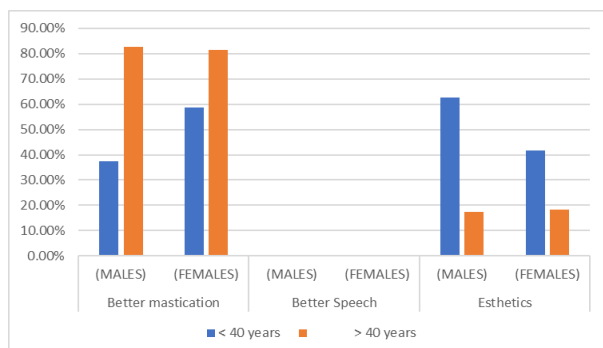
Illustration II shows the distribution according to the priority of the patients based on gender and age. The calculated percentage of male patients who preferred better mastication and were below 40 years of age was 37.5% and that of females below the age of 40 years with the same priority was 58.82% whereas for patients above the age of 40 it was 82.76% and 81.58% for males and females respectively. None of the patients surveyed had speech as their priority (0%). The calculated percentage of patients who preferred aesthetics and were below 40 years of age were 62.5% males and 41.76% females and above 40 years of age 17.24% males and 18.42% females preferred aesthetics. There was an statistical significant difference seen in patients based on the gender and age distribution.

Illustration III shows the distribution according to the patients requirement of the type of replaced teeth based on gender and age. The calculated percentage of male patients who preferred whitest possible teeth and were below 40 years of age was 6.25% and that of females below the age of 40 years with the same priority was 0% whereas for patients

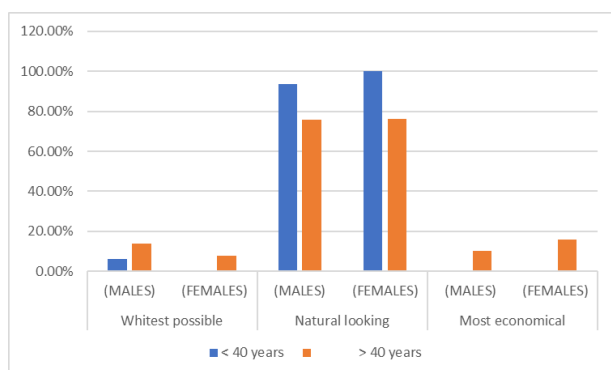
above the age of 40 it was 13.79% and 7.89% for males and females respectively. The calculated percentage of patients who preferred natural-looking teeth and were below 40 years of age was 93.75% males and all (100%) females and above 40 years of age 75.86% males, and 76.31% females preferred natural-looking teeth. None of the patients below the age of 40 preferred the most economical category of teeth whereas in patients above 40 years of age 10.35% males and 15.8% of females preferred most economical teeth. There was a statistically significant difference seen in patients based on gender and age distribution.



Graph 1: Main problems faced by the patients.



Graph 2: Patient's priority.



Graph 3: Patient's requirements of the type of replaced teeth.

DISCUSSION

Prosthetic rehabilitation of partially or completely edentulous patients is essential in clinical practice since the definitive treatment can improve oral function, aesthetics and quality of life of most patients.⁶ Traditionally, determination of prosthetic treatment options and selection of therapy have been considered part of the practitioner's professional responsibility. In contemporary clinical practice, patients are increasingly assuming an active role in determining their actual treatment needs by stating their priorities and expectations.⁷

In this study, a comprehensive questionnaire was administered to 100 partially edentulous patients after taking written consent from them. The questionnaire included the chief complaint, or need of the patient, priority of treatment and requirement of type replaced teeth. The results show that the patients ≤ 40 years of age prioritized better aesthetics, whereas patients >40 years preferred better mastication. Patients ≤ 40 years especially females, demanded a natural-looking appearance of the teeth as compared to the patients >40 years. None of the patients ≤ 40 years opted for most economical teeth whereas a very less number of patients opted for whitest possible and most economical teeth and they were the patients >40 years. It showed that there was a significant difference in the priorities and treatment needs of patients surveyed based on gender and age.

In contrast with the findings of this study, the results of Vigild's study on the institutionalized elderly showed that professionally assessed dental treatment did not tally with true need.⁸ Vigild thought that this might be because such individuals were not in a condition to demand or benefit from such treatment. The author further recommended that realistic or feasible need would be more appropriate than professionally determined or patient-perceived need for such individuals, taking into account their physical and mental condition.

This study is corresponding with some of the previous studies, including one by Al-Fawaz AA and Zakrzewsska JM who conducted a study regarding the needs and demands for dental treatment among

Saudi population, and reported that about 18% of Saudi female patients demand replacement of missing teeth compared with approximately 9% of male patients.⁹ This reflects the effect of gender on the awareness to prosthetic needs.¹⁰ Similar findings have been reported in various studies. According to Singh SK et al. there was a significant disparity found between professional prosthodontic advice and patient desired management, possibly due to lack of understanding or communication also esthetic and health concerns as reasons for requiring prostheses were secondary to masticatory difficulty.¹¹ On the other hand, Kakudate N et al. in his study found that patients assessed "Age-specific care to maintain oral health" as having the most significant priority among a broad range of research agenda items.¹² This study also revealed what kind of questions dental patients have according to age group and gender. The previous studies have described the importance of the priorities and demands of patients but have not clinically implemented and assessed patients subjective perception.

CONCLUSION

This study concluded that there was a significant difference in the preferences and needs of patients as regards prosthodontic treatment, based on gender and age. The Patients below forty years of age, primarily females were more concerned about their aesthetics and preferred natural-looking teeth in comparison to patients above forty years of age who preferred better mastication and were also concerned with the expenditure of the prosthesis. Therefore, we can conclude that determining the patient's priority and treatment needs is of great importance for a successful prosthodontic treatment outcome.

CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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