

PATIENT SATISFACTION WITH IMPLANT RETAINED PROSTHESIS PROVIDED BY RESIDENTS AT KING ABDULAZIZ UNIVERSITY- FACULTY OF DENTISTRY (KAUFD) AND KING FAHD ARMED FORCES HOSPITAL (KFAFH)

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ABSTRACT

Aim: To evaluate patients' satisfaction following treatment with implant supported prosthesis.

Methods: 70 patients were requested to complete a standardized survey over the phone to rate their satisfaction following treatment with dental implants at King Abdulaziz University- Faculty of Dentistry (KAUFD) and King Fahd Armed Forces Hospital (KFAFH) that was provided by residents post graduates in the implant fellowship program. The questionnaire included patients general information, the location of the implant placed as well as the type of prosthesis provided and patients opinion with regards to cost, treatment duration and choice of treatment.

Results: 30% of the patients received treatment at KFAFH, while 70% were treated at KAUFD 65.7% of the patients were employed with 39% of those working in the military sector. The treatment duration was reported to be less than one year in 57.1% of the cases. As for the location of the implant, most were placed in the posterior region (84.3%) and 52.9% were placed in the mandibular arch with 87% were restored using fixed prosthesis.

Conclusion: A high percentage of patients were completely satisfied with implant therapy and would recommend it to others. The only complained was due to the lengthy appointments needed for treatment.

KEY WORDS: Patient Satisfaction, Dental Implants, Implant Supported Prosthesis, Survey.

INTRODUCTION

Implant supported prosthesis are in high demand as a result of their superior functional, psychological and aesthetical properties compared to conventional fixed or removable prosthesis. The

popularity of implant supported prosthesis -whether fixed or removable- is due to its high success rate in the treatment of completely and partially edentulous subjects, good prognosis and the expected longevity of such treatment [1-3]. Rehabilitation with dental

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implants offers many advantages including the preservation of the alveolar bone from resorption that occurs following tooth loss, improvement of facial esthetics and enhancement of the removable prosthesis stability and retention^[4, 5]. In cases of single tooth replacement, implants are considered the treatment of choice as it does not require the preparation of the adjacent teeth as abutments which is needed in fixed partial dentures. Additionally implant placement results in the preservation of the height and width of the alveolar bone.^[6] The process of dental implant osseointegration as well as the successful and vital role of dental implants in oral rehabilitation has long been established through years of follow up and research.^[1, 7, 8] However, long-term reports regarding patient satisfaction employing subjective evaluation of the treatment outcome by the patient are insufficient. Most reports focus on treatment outcome and implant success in terms of the surgical site healing and / or prosthetic component longevity in addition to vertical bone loss around the implant. This overlooks the patients' subjective evaluation and satisfaction with the implant supported prosthesis or the course of treatment^[1, 3, 9, 10]. Furthermore, most of the studies that do report on patients satisfaction mostly compare patients satisfaction with implant supported over denture as opposed to conventional complete dentures^[11-16]

The acceptance of implant treatment, and patients opinion regarding treatment cost and satisfaction are scarce^[17, 18]. Despite the general belief that patients are more satisfied with implant supported fixed prostheses, reports on patients' satisfaction and the impact of implant supported fixed prosthesis treatment on patients oral health status compared to implant supported removable prostheses indicated no difference between the two groups^[19] however the cost of treatment was significantly higher in the group receiving fixed prostheses. Furthermore, patient treated with implant supported prostheses reported greater difficulty with maintaining oral hygiene^[20].

The aim of this study was to conduct a survey reporting on patients' satisfaction following prosthetic rehabilitation using dental implants at King Abdulaziz University- Faculty of Dentistry (KAUFD) and King Fahd Armed Forces Hospital (KFAFH) through documenting patients' approval of treatment outcome following implant placement and rehabilitation as well as understanding the significance of gender and other patient related factors on the results. The location and type of restoration was also considered along with the overall duration of treatment.

The aim of the current research was to document the patients' satisfaction and perception of treatment outcome following implant placement and rehabilitation.

MATERIALS AND METHOD

The dental records of all patients undergoing implant treatment at KAUFD and KFAFH were reviewed and patients were contacted by phone. Patients who were still under treatment were excluded and patients who have completed their treatment within no less than 3 months were included. The study was conducted over three months with a total of 70 patients (35 males and 35 females) who agreed to complete the standardized survey (over the phone) to rate their personal opinion on their implant treatment. Patient's age ranged from 20 – 59 years of age all of whom received dental implants at KFAFH and KAUFD provided by residents and post graduates in the implant fellowship program. The questionnaire was completed with the patients over the phone and included:

1. Patient's demographics.
2. Patients satisfaction with the overall treatment received in terms of esthetics and function using a 10 point scale with 10 being the highest score.
3. The types of prosthesis provided (fixed, removable or combined).
4. Arch restored (maxillary arch, mandibular arch or both).

5. Location of implant (anterior, posterior or both).

All data collected was interpreted with the Statistical Package for Social Science (SPSS) version 20 (IBM Corp., Armonk, NY).

RESULTS

Patients’ age and gender are displayed in figure 1 while figure 2 represents the educational level of the patients. In total, 30% of the patients received treatment at KFAFH, while 70% were treated at KAUFH. The treatment duration ranged from 3 – 24 month with most cases requiring 3-12 months (57.1% reported treatment duration of less than one year).

65.7% of the patients were employed compared to 31.4% unemployed and only 2.9% were students. 39% of those were employed in the military sector.

The reasons given for seeking implant treatment at the KAUFH and KFAFH are displayed in figure 3.

Most implants were placed in the posterior region (84.3%) compared to the anterior (10%) or both anteriorly and posteriorly (5.7%). Of these implants 52.9% were placed in the mandibular arch compared to 34.3% in the maxillary arch and only 12.9% in both arches.

The majority received fixed prosthesis 87% compared to only 13% combined fixed/removable.

Figure 4 represents patient’s opinion regarding certain functional and clinical aspects of the treatment including their ability to chew and speak as well as their perception of the aesthetical outcome of the implant supported prosthesis, its costs and the overall satisfaction. 90% of the patients stated that they would undergo the treatment again if needed and / or recommend it to others while more than 80% scored their satisfaction with the treatment at 9 or above.

86% had no bleeding and the cost of treatment was found to be irrelevant to patient’s satisfaction.

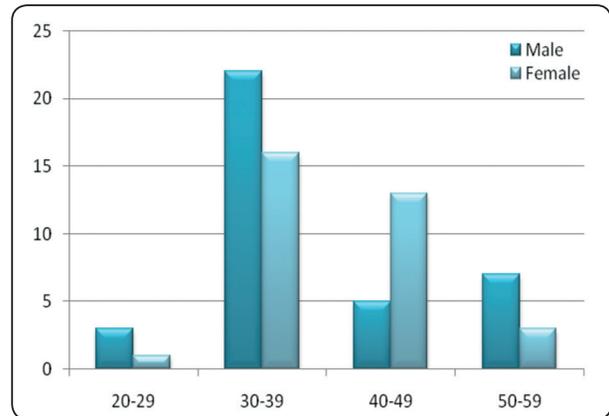


Fig. (1) Patients’ demographics in terms of age and gender

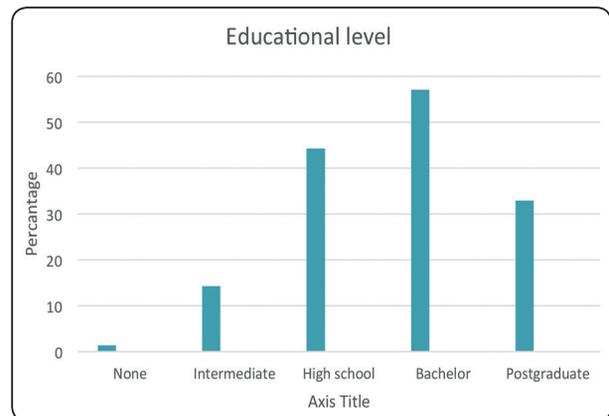


Fig. (2) Educational level of participants.

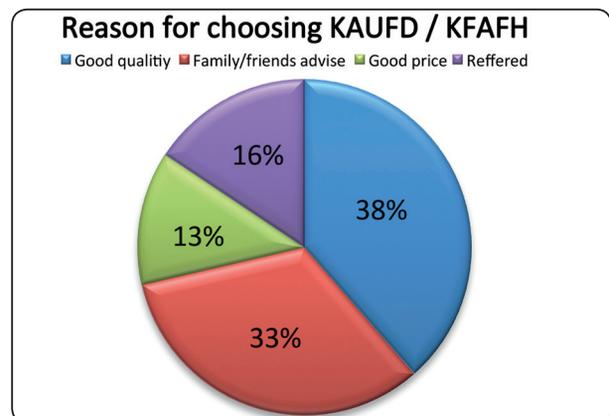


Fig. (3) Patients' reason for seeking implant treatment at KAUFH and KFAFH.

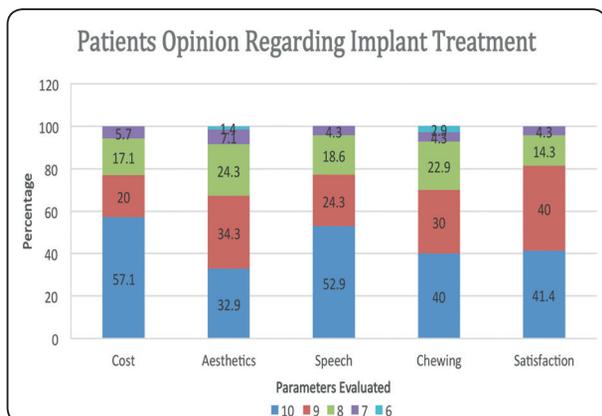


Fig. (4) Patients evaluation of the implant supported prosthesis with regards to function, aesthetics, cost and their overall satisfaction with the treatment on a scale of 0 - 10.

DISCUSSION

The current survey was conducted to evaluate patient's satisfaction treatment with implant supported prosthesis at KAUFD and KFAFH. The survey was conducted over the phone which assures the patients full comprehension and increases the overall reply compared to other methods of survey distribution. Telephone interviews are simpler to arrange, takes much less time than face-to-face interview and are an effective method for gathering data [21,22]. Patient's demographics were insignificant in terms of gender but a higher percentage were highly educated with bachelor or postgraduate degree. These are similar to other published data where 53.8% of patients participating in a questionnaire relating to satisfaction with dental implants were found to be employed and holding a high school or university degree [23]. Furthermore, 25.7% were military personnel which is expected since 30% of the participants received treatment at the armed forces hospital known as KFAFH. This hospital provides free medical and dental treatment including dental implants for members of the armed forces. Hence the majority of the patients were not concerned with treatment cost which is in direct contrast to many reports where rehabilitation with

dental implants was reported to be costly [17]. The most reported reason for choosing these two venues for treatment was the quality of service followed by family and friends recommendation. Despite cost, KAUFD offers affordable dental implants to its patients as it is an educational nonprofit institution. 33% of patients stated that friends and / or family advice was the reason for their choice of treatment while a smaller percentage (16%) were referred to treatment by their general dentist. Moghadam et al have reported high patient satisfaction of up to 91% with dental implant therapy carried out in teaching environment [24] which is comparable to the current finding of more than 80% satisfaction scores of 9 or above. In a recent report, 23.1% of participants identified that their choice of treatment location was based on friends and family recommendation [23] which is comparable to the current work. Only a small percent of patients reported that they were referred by their general dentist (16%) in the current survey which is in total contrast to the higher reported referral from the general dentist (55.8%). This may be due to fact that KFAFH provided treatment exclusively to members of the armed forces and their immediate dependents. More than half of the implants placed were located in posterior region and more so in the mandibular arch. This may be due to the fact that molar tooth loss is more common than anterior tooth loss especially within the age group surveyed. It has been reported that the mandibular first molar is the most prone to caries and early loss, probably as a result of its early exposure to the oral environment [25, 26]. The majority of the patients were highly satisfied with treatment outcome (functionally and esthetically) and stated that they would recommend it to others. These results reflect higher patients satisfaction compared to study conducted at KSU where 59% of the subjects were satisfied with the overall treatment [21]. However, 22% of the participants in the current study indicated that they were neither satisfied with the treatment period nor with the

cost. These patients named the number and length of appointments required for treatment as the main cause for dissatisfaction which is significantly less than other reports of 44.2% dissatisfaction with length of treatment^[23]. Numerous reports on patient's satisfaction with oral function, speech, oral hygiene and chewing as well as aesthetics following implant supported rehabilitation state that most patients were satisfied with implant supported prosthesis except for the hygiene procedure required. Yet the majority of participants confirmed that they would recommend the treatment to others and are willing to undergo it again if needed^[20, 27]. This is similar to the current report where 90% of patients stated that they would undergo the treatment again if needed and recommend it to others. It has been reported that implant supported prosthesis offer higher comfort and superior aesthetics than conventional prosthesis with cost being the major drawback^[28]. Other investigators reported 90% patients satisfaction 5 – 15 years after treatment with implants where the cost was considered to be justified^[29]. Such findings are in agreement with the present study. Despite the considerably higher the cost of implant supported prosthesis compared to conventional dentures, complaints with that regards were found to be statistically insignificant^[30]. A ten year evaluation was conducted to measure patient satisfaction following treatment with implant overdentures in relation to the patient's demographics (age, gender), treatment duration and the location of the implant (maxilla, mandible or both). A visual analogue scale (VAS) from 0 to 10 was employed to indicate satisfaction including function, esthetics, stability of the prosthesis and self-esteem. Men were found to be more satisfied than women with mastication and stability, but the overall satisfaction, was found to be independent of all other variables^[31]. Women have reported that oral health had a significant impact in their lives and confidence^[32]. It was found that elder female patients were less satisfied than their male counterparts when treated

with conventional dentures, but equally satisfied with implant overdentures^[33]. A self-administered mailed questionnaire reported that no demographic or treatment-related variable were statistically significant with regards to patients satisfaction with dental implants^[34]. This is consistent with the current findings. It must be stressed however that due to differences in study designs and other treatment related factors, direct comparison between studies may not be applicable due to lack of standardization in the outcome assessment of treatment^[11, 35].

CONCLUSION

In conclusion, the findings of the current survey indicate that the majority of patients were satisfied with implant treatment received at KAUF and KFAFH, from a functional and aesthetic point of view. 90% of the patients stated that they would recommend it to others and would undergo the treatment again if needed. The high standard of care as well as recommendations from family and friends were the highest reasons given for the seeking treatment at KAUF and KFAFH. The most common reason for dissatisfaction were the length and number of appointments required for treatment. Future multicenter studies with a larger sample size are recommended to investigate the relation if any of patients demographic and their satisfaction scores.

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