

Knowledge, attitude, and awareness of edentulous patients in Kuala Lumpur, Malaysia and Chennai, South India

Sivesh Sangar^{1*}, R. Subhashree²

ABSTRACT

Aim: This study is done to evaluate the awareness and attitude; each patient has toward dental prosthesis for implant rehabilitation of missing teeth. **Objective:** The objective of this study was to assess the knowledge, attitude, and awareness of edentulous patients in Kuala Lumpur, Malaysia and Chennai, India. **Background/Reason:** There is a widespread presence of edentulousness in patient reporting to Saveetha Dental College and Hospitals. These patients being poorly informed about the treatment plans available for rehabilitation of missing teeth lead toward this study and their chief complaint does not require replacements. Knowing their awareness helps us in planning and formulating short dental awareness module to the patient. The evaluation is done by compiling a questionnaire which was distributed to patients reporting to Saveetha Dental College and Hospitals.

KEY WORDS: Attitude, Awareness, Missing teeth, Rehabilitation

INTRODUCTION

The face is widely regarded as a symbol of “self” and a smile as a window into one’s personality.^[1] In these teeth play a significant role in maintenance of a healthy personality and self-image.^[2] Tooth loss is psychologically upsetting experience and is considered to be a serious event in the life of a person, requiring significant psychological readjustment.^[3] Nowadays, modern dentistry aims to restore the patient’s normal function, esthetics, speech, and health. Dental implantology has developed in recent decades into a prospering component of dentistry in Europe and the USA.^[4] Implant-supported prosthesis has proven advantages such as increased masticatory efficiency, maintenance of the bone, improved function, phonetics, and esthetics. The interest in esthetically flawless teeth and also in a nearly natural substitute such as an implant-supported overdenture, for example, has grown lately.^[5]

Dental implants were originally used for the treatment of edentulous patients and are associated

with improved denture retention, stability, functional efficiency, and quality of life. At present, dental implants are widely accepted as a prosthetic treatment of completely or partially edentulous patients.^[6] This led to widespread acceptance and popularity of dental implants within the dental professional community. Although the replacement of lost teeth with dental implants is considered as a positive experience by patients, patient’s awareness of evidence-based treatments is dispersed and data that are given by media do not reflect evidence-based information.^[7]

Patients may suffer real or perceived detrimental effects following the loss of one or more teeth which substantially reduce the quality of life affecting them emotionally, socially, physically, and psychologically.^[8] The non-acceptance of edentulousness and the individual’s feelings about dentures, which have been the traditional way of replacing missing teeth, is important for the acceptance of new dentures.^[9] Conventionally, missing teeth are replaced by removable partial dentures, fixed partial dentures, and complete dentures.^[10] Requirements such as esthetics and functional comfort are considered more important and more easily achieved with dental implants.^[7] Patient’s perception

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plays a major role in decision for the replacement of posterior teeth and cosmetic dental treatment.^[11]

MATERIALS AND METHODS

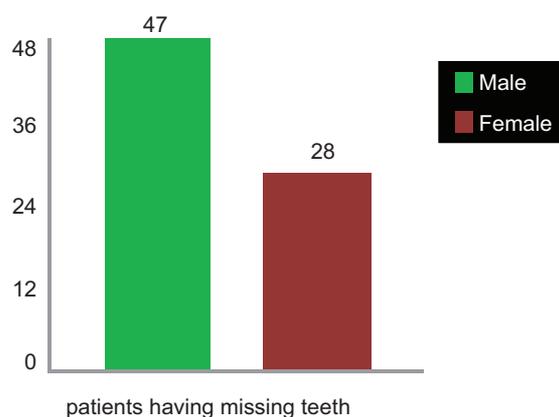
A descriptive cross-sectional study was done patients attending Saveetha Dental College regarding their knowledge and awareness of the replacement of missing teeth. The survey consisted of a self-administered questionnaire given to patients aged 20 years or older. The questionnaire comprised 14 questions. Questions were regarding missing teeth and replacement techniques.

RESULTS

A patient population of 200 participated in the study, of which 100 were from Malaysia and the remaining 100 were from South India. From the participants in the survey, there were 34 males and 66 females from Malaysia, whereas in India, there were 60 males and 40 females which correspond to 47% of the study population as males and 53% as females. The mean age of the study group was 38.3 years with 23 years and 60 years of age being the youngest and oldest patients.

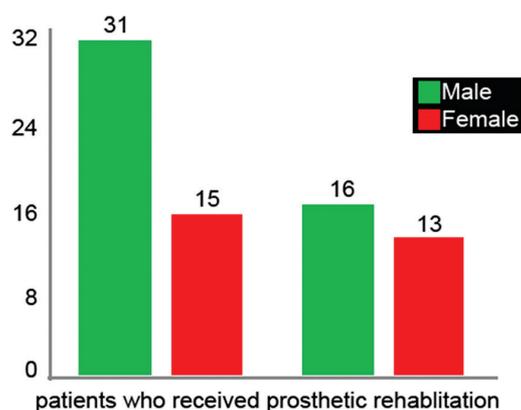
Patients Having Missing Teeth

In this survey of 100 people, 75 people had missing teeth, of which 28 were female and 47 males. About 75% of the examined population had missing teeth with 28% being females and 47% of males. This survey found that females had higher occurrence rate of missing teeth. Most people had missing teeth for a time period of 1 year–8 years.



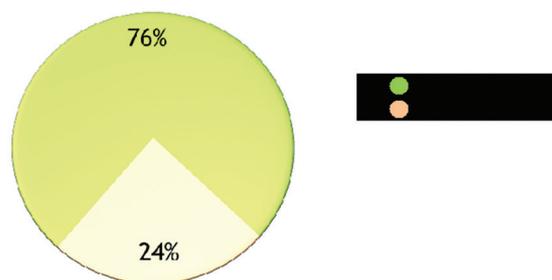
Patients who Received Prosthetic Rehabilitation

Of 75 people having missing teeth, 29 of them have not got a replacement done which counts for 29% among people having missing teeth. Remaining 46 of the 75 people with missing teeth got their teeth replaced which counted for 61.3% of the population with missing teeth. Of the 29 people who have not got replaced, 13 were female and 16 males and of 46 people who got missing teeth replaced, 15 were female and 31 males.



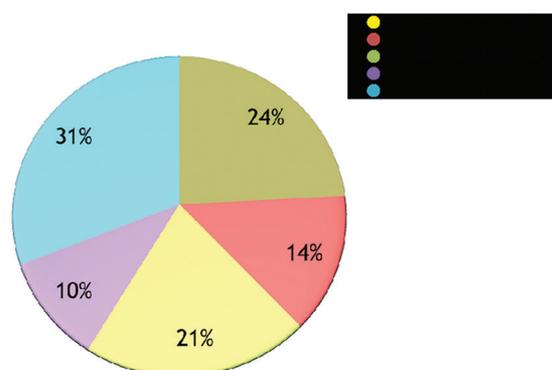
Patient's Satisfaction with Existing Dental Prosthesis

As per the study, 46 people of 100 people with missing teeth had got a prosthesis done which was 46% of the missing teeth population. Among the 46 people who had prosthesis, 35 were satisfied and the remaining 11 had complaints on their prosthesis.



Reasons for not Seeking a Prosthetic Rehabilitation

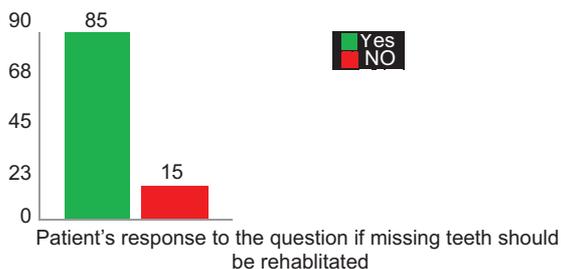
Of 29 people with missing teeth not having replaced, 24% of this population did not get replacement done due to their fear toward dental procedures which accounted for 7 people among the 29. About 14% that is 4 among the 29 had financial issues. About 20% which is 6 of 29 had no sufficient time for dental procedures. About 10% which is 3 of 29 were not aware of any such procedures and 31% felt there was no necessity to replace their missing teeth.



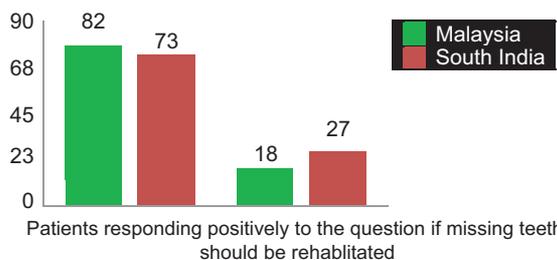
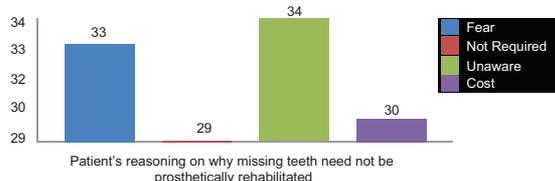
Patient's Response to the Question if Missing Teeth should be Rehabilitated

Among a survey of 100 people, 85 people which are 85% of population said that missing teeth must be

replaced. Among this group, 52 were male and 33 were female corresponding to 52% and 33% of males and females, respectively, who said that missing teeth must be replaced, whereas eight males and seven females found no need of replacing the tooth.

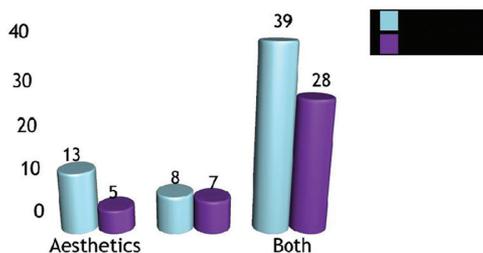
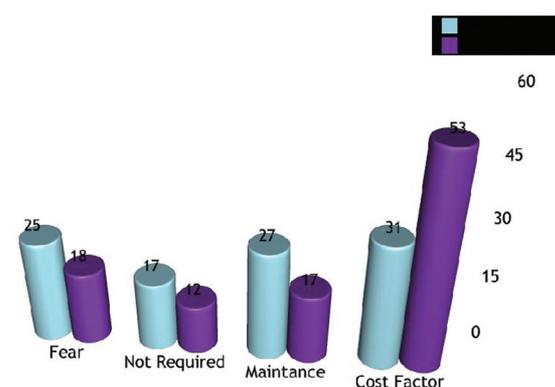
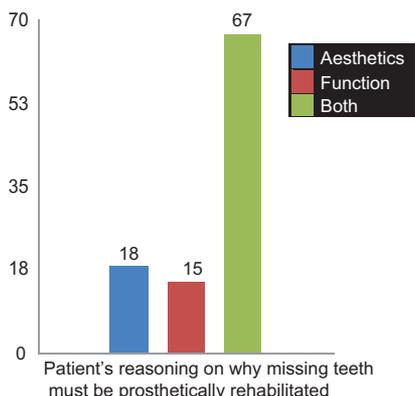


unawareness and 29.1% think that it is not required. When participants were asked 33% felt that it is a serious and scary procedure that will be done under general anesthesia. On the other hand, 41.9% of the participants did not know who are opt for dental implant and 34.1% felt that implant is expensive and only for rich people.



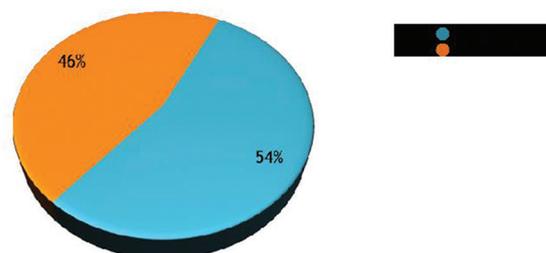
Patient's Reasoning on why Missing Teeth must be Prosthetically Rehabilitated

Among the total survey population, 18% said that replacement must be done to restore esthetics. About 15% of the population wanted replacement to restore function. About 67% of the entire population said that teeth must be replaced both for esthetics and function.



Dental Implant and its Awareness among Patients

About 54% of the entire population was aware of dental implant as a rehabilitation technique for missing teeth. Fifty-four people among 100 were aware with 29 males and 25 females in them who make 54% and 46%, respectively, of this population.



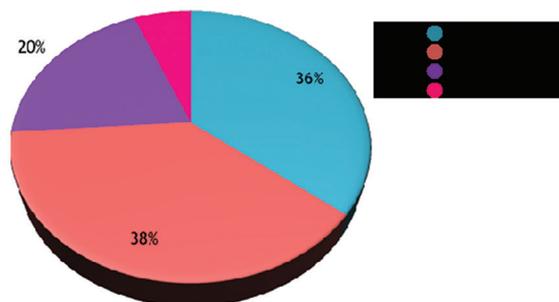
Patient's Reasoning on why Missing Teeth need not be Prosthetically Rehabilitated

The majority of the patients (97.37%) will not choose dental implant for teeth replacement due to lack of

Various Source of Awareness of Prosthetic Rehabilitation

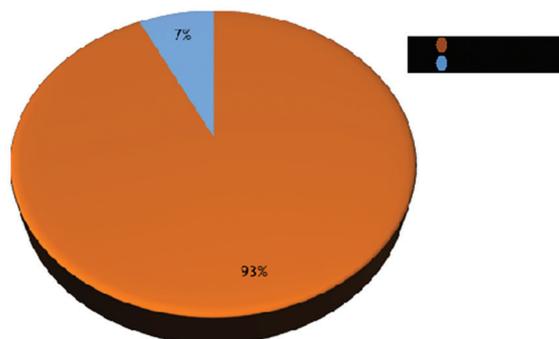
When assessing the level of knowledge in using different approaches in replacing missing teeth, 83.3% were aware of removable dentures and fixed partial dentures and 68.5% were aware of dental implants. Only 34.6% of the respondents know the difference between the implants and other conventional treatments and 33.1% think that implant is more successful than other treatment modalities. The main source of information about implants was relatives and friends (38.2%) followed by dentist (35.7%), from the mass media (20%) and

other sources such as seminars and talks made up the remaining (6.1%).



Patient's Preference of Fixed Prosthesis over Removable

In this survey, when people were asked about their preference of replacement technique, most of them preferred a fixed prosthesis rather than a removable one. About 93% of population which is 93 of 100 wanted a fixed prosthesis, whereas very few that is seven people who make 7% of the total population preferred removable over fixed.



DISCUSSION

In interpreting the findings of the present study, it is important to outline the possible limitations. First, this study was conducted among the patients attending Hospital Universiti Kebangsaan Malaysia (HUKM) and Saveetha Institute of Medical and Technical Sciences (SIMATS) outpatient clinic regarding knowledge, awareness, and acceptance about dental implants as a treatment modality for replacing missing teeth. This specific group was selected for ease of access and to increase the response rate as they are dental patients, who were approached during their dental visits, but it is governmental hospital and most of the patients attending are from low socioeconomic status, which seems not linked to educational level as a determinant, the result revealed that almost half of the surveyed patients were university graduates and postgraduates. Second, due to the self-reported aspect of the data and patients interviewed, it is difficult to determine whether the response is affected by vulnerability, although the patients have their right

to refuse participation, some interviewed illiterate patient thought that participation may be privilege in getting more care. Third, only few studies regionally or locally reported among patients attending dental outpatient's clinics for complaints other than replacing missing teeth that make it difficult for comparing the results of the present study.

The level of awareness of implant as an option for the replacement of missing teeth recorded by Kumar *et al.* was 4.83%. This might be because the study conducted by Kumar *et al.* was on people who belonged to low socioeconomic status and quality of education.^[8] The study conducted by Al-Johany *et al.*,^[9] Tepper *et al.*,^[10] and Best,^[12] Zimmer *et al.*,^[13] and Berge^[14] recorded the level of awareness in their different studies to be from 66.4% to as high as 77%.

Elias and Sheiham conducted a review of literature and found that, in general, patients were more likely to seek replacement of a missing anterior tooth than a posterior tooth and rated esthetics above function in their priority for tooth replacement.^[15] The Adult Dental Health Survey of 1998 in the UK also noted that patients with a reduced dentition were more likely to seek replacement of an anterior tooth, but a significant proportion felt that they would also prefer to have missing posterior teeth replaced.^[16] Osterberg *et al.* reported that an individual's subjective need for the replacement of missing teeth was based mainly on esthetic rather than functional factors.^[11]

As displayed in the result, only 68.5% had heard about the dental implants. This result is close to the previous study done in Saudi Arabia (66.4%),^[4] while it differs significantly from that one done in India (4.83%) and this may be attributed to the lower socioeconomic status and educational levels in that region where Indian study conducted.^[5] As half of the participants did not know the place where implant is inserted or the need for special care and hygiene, this may reflect the poor knowledge of the function and properties of the dental implant.

In this study, 35.7% of patients were informed first by their dentist about the implants compared to 38.2% who received it from family and friends. Studies from other countries show different results: In the Netherlands, 52% received information first from friends, compared with 36% who received it first from the family dentist, and^[15] in Japan, only 20% obtained information about dental implants from the family dentist.^[16] While in a survey done in the USA, only 17% obtained information about dental implants first from dentist, with media and friends playing much more important roles (77%).^[9]

A recent study shows that in public media such as journals and television, some negative reports were given about dental implant;^[13] additionally, media play a major role in spreading the idea of a forever

lasting implant, this leads to unrealistic patient's expectations.^[14] In this study, the main source of information was relatives and friends; this explains the confusion and misunderstanding regarding dental implants. Majority of the participants (93.2%) were interested to know about dental implant which is high when compared to others as in India (85.65%)^[7] and in Saudi Arabia (82%).^[6] This indicates the real need for dental education about dental implants.

CONCLUSION

Implant is an increasingly popular treatment modality for teeth replacement with a high success rate. In developed countries, with the help of health programs, implant is becoming the focus of the patients' and dentists' interest. In the present study, the majority thought that dental implant is expensive and only available for rich people. Dentists were the second source of information coming after relatives and friends, thus dentists should be actively involved in informing and counseling potential implant patients to afford the correct scientific information. Awareness among patients regarding the dental implants can help in eliminating any incorrect or negative images of the procedure that may have been caused due to lack of adequate information.

Among the entire population in the survey, 54.6% of South Indian population had missing teeth while about 64.2% of the Malaysian population had missing teeth. Among them, 60.9% of Indian population and 49% of the Malaysian population did not get their missing teeth replaced. Mostly females in both the countries were concerned about esthetics, but majority of population wanted both esthetics and function be restored. Among the ones who have not gotten a replacement, most of them were bothered about the cost and few had fear toward dental procedures. On enquiring regarding implants, 45% of the entire population was aware. Most of them were informed through dentist and few through friends. When asked about their preference in prosthesis, most of them preferred fixed and very few wanted removable as it is a more permanent solution.

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