

ORIGINAL ARTICLE

Oral Hygiene Awareness in Implant Patients

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Abstract

Background: The level of awareness about implant and oral hygiene is low among the patients in Indian community and the source of information plays a key role in improving the level of awareness about dental implants and maintenance of same. **Objectives:** To assess the level of knowledge, attitude, acceptance and maintenance of dental implant in patients. **Materials and methods:** A hospital based questionnaire survey was conducted among 151 patients attending outpatient department of A.B. Shetty Memorial Institute of Dental Sciences (Mangalore). Eligible participants with implants were selected. Questionnaire was used to assess their knowledge, attitude, level of comfort and maintenance of Dental implant. **Result:** Out of 151 patients 62.9% are made aware about dental implant through their dentists and most of them were of 34 to 45 years of age group. 45.7% of patients expected the life expectancy of implants to be less than 10 years. 46% expected the need for more maintenance after implants. **Conclusion:** The results of this survey showed an acceptable level of awareness about dental implants and oral hygiene maintenance among a selected sample of dental patients. It also emphasizes the need for the educating patients about dental implant maintenance.

Keywords: Awareness, Oral hygiene, Implant, Level of Comfort

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Introduction

Implant is an ideal treatment option for missing teeth in patients with good general oral health as it enhances the quality of life of the patient. Level of awareness regarding implant and its maintenance and level of comfort for the same is very poor in developing countries like India. Taking good care of dental implants is vital for long term success of it. So good oral hygiene must take place before, during and after placement of implant. Poor oral hygiene maintenance will lead to peri-implantitis and other complications, which further leads to failure of an implant.

When a patient fails to maintain good oral hygiene care after the placement of an implant, the earliest sign of a problem begins with the observation of bleeding. This is known as Mucositis and if this is noticed in an early stage further complications can be prevented.

Unfortunately if it progresses to bone loss, also known as peri-implantitis, the bone loss is not reversible and leads to removal of implant.

The daily care of dental implants is very similar to the care of natural teeth. Restored dental implants should be kept clean and plaque free twice a day using a brush and floss. Cleaning is especially important after meals. This is accomplished by gently brushing, giving special attention to all sides of the implant.

According to the American Academy of Periodontology position paper on periodontal maintenance (published in 2003)⁽¹⁾, "patients should be evaluated at regular intervals to monitor their peri-implant status, the condition of the implant supported prostheses, and plaque control." Plaque control is as critically important for the maintenance of dental implants as it is for natural teeth^(2,3). Therefore, it is of vital importance that patients understand their role and responsibility in maintaining their implants.

Ideally, a home care assessment should have been performed before placement of the implant fixture⁽⁴⁾, but whether or not an initial assessment was performed, review and reinforcement at subsequent maintenance appointments are essential.

A regimen for thorough oral hygiene, customized according to the condition of the tissue and the extent of plaque and calculus around the implants, should be implemented by the patients. A very few studies were conducted regarding oral hygiene awareness, acceptance and maintenance of implant(s). Hence present survey was conducted to evaluate the same.

Materials & Methods

This questionnaire based survey was conducted during the month of August 2016 to October 2016 for a period of 3 months. Patients reporting to the outpatient department of A.B. Shetty Memorial Institute of Dental Sciences (Mangalore) for a regular dental visit after placement of an implant(s) were included. A verbal consent was taken from all the individuals who were willing to participate.

Data Source

A total of 151 participants during study period were surveyed. They were selected by stratified random sampling technique.

Inclusion and Exclusion Criteria:

All the subjects attending the dental college for a regular follow up after implant placement were included.

Questionnaire:

The data was collected in the form of a questionnaire which were similar to the one used by previous researchers with few additional questions. Patients were asked about their oral hygiene practice such as method of brushing, frequency, change of toothbrush, use of interdental aids and mouthwashes. Patients were also asked questions like source of information about implants, perceptions of oral hygiene care, life expectancy and change in the level of comfort for maintenance of oral hygiene after placement of implant(s).

Data Analysis:

The data was analyzed in Microsoft excel using average and percentage.

Results

A total of 151 participants were included in the survey. Out of which, males were slightly predominant than females that is 66 were female and 85 were male. About 40% of participants were in the age group of 35 years to 44 years.

Table 1 shows the oral hygiene practice among the studied group. It clearly indicates that all of them use tooth brush and paste. The survey showed that majority used vertical method of brushing and brushed once daily with slight marginal differences with twice daily. It also shows that 56.3% of them use soft bristle brush when compared with medium or hard.

When asked about use of any interdental aids

Table 1: Tooth brushing pattern of the studied group

Variables	Number	percentage
Type of brush		
Neem stick	-	-
Charcol	-	-
Tooth brush/paste	151	100.0
Finger and tooth powder	-	-
Method of brushing		
Horizontal	29	19.2
Circular	34	22.5
Vertical	47	31.1
Combined	41	27.2
Frequency of brushing		
Occasionally	-	-
Once daily	77	51.0
Twice daily	74	49.0
More than twice	-	-
Consistency of the brush		
Hard	4	2.6
Soft	85	56.3
Medium	62	41.1

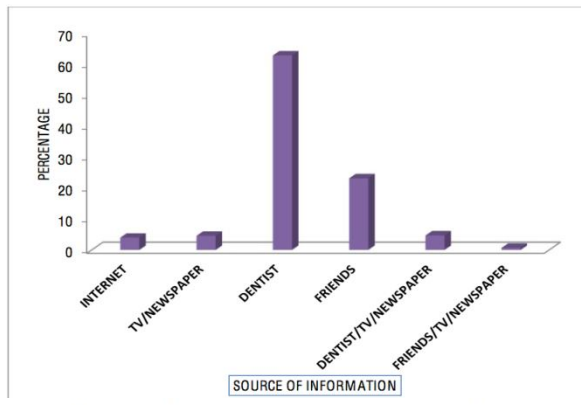
51.7% said they do use interdental aids and majority of about 44% said they use floss on regular basis.

When assessing the level of knowledge regarding implant and its maintenance, the main source of information about implants were dentist (62.9%) followed by friends (23.2%) and the percentage of other sources were displayed in (fig 1).

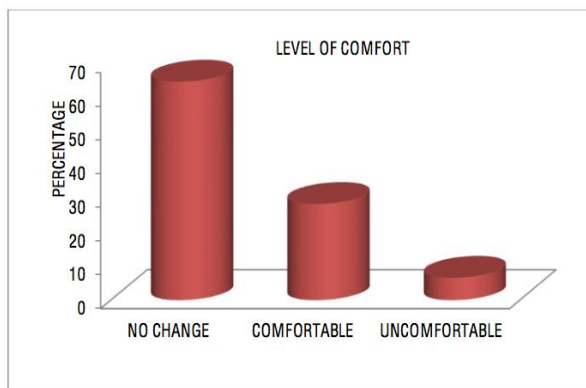
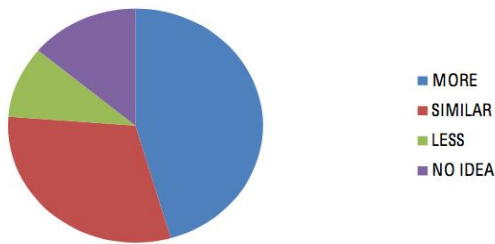
Around 45.7% of the surveyed patient had a perception that implant required more oral hygiene care when compared to natural teeth. This was closely followed by 30.5% who said it is same as natural teeth and percentage of other sources are displayed in (fig 2).

Concerning with regard to the durability of implants, 45% think it lasts for less than 10 years and 35.8% think it lasts for about 20 years. Whereas 14.6% think the implant lasts for 25 years and only 4.6% think it will last for more than 25 years.

When asked about if there was change in the oral hygiene practice, 57% said there is change in the oral hygiene practice and 43% said there was no change. Considering the level of comfort for maintenance of oral hygiene 64.9% said there was no change in the level of comfort, 28.5% said more comfortable than before and only 6.6% said uncomfortable. (Fig.3)



PERCEPTIONS OF THE ORAL HYGIENE IN IMPLANTS



Discussion

Among 151 surveyed patients only 39.1% had heard about the dental implants before their visit to the dentist. This result is different to the previous study done in Saudi Arabia (66.4%)⁽⁵⁾, 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⁽⁶⁾. In this study, 62.9% of patients were informed first by their dentist about the implants compared to 23.2% who received it from family and friends. In Japan only 20% obtained information about dental implants from the family dentist⁽⁷⁾. While in a survey done in USA only 17% obtained information about dental implants first from dentist, with media and friends playing much more important roles (77%)⁽⁸⁾. Dentists were the first source of information followed by friends, thus dentists play an active role in spreading awareness regarding oral hygiene practice.

As dental implant-retained restorations become more popular, the prevalence of implant complications will also increase. To obtain long term success, maintenance of peri implant tissue is of utmost importance. Dental hygiene and care including soft tooth brushes, interproximal brushes and mouth rinses help to prevent peri-implant disease⁽⁹⁾. Pommer et al.⁽¹⁰⁾ reported that 39% of the population thought that implants require more care and half of them would clean their implants similar to natural teeth. In the current study, almost half of the patients, considered that implants need more care than natural teeth. Almost 30.5% of them would clean their teeth similar to natural dentition. These findings were in consistent with the results of Al-Johany⁽¹²⁾. Dentists should explain their patients the importance of dental hygiene and care before implant therapy, educate and motivate them to provide sufficient dental care for the maintenance of implants.

There is increased use of soft bristle brushes, interdental aids and mouthwash which suggests that there is improved oral hygiene practice after placement of an implant. Patients have a positive approach towards the maintenance of the same. The present survey shows that majority had same level of comfort for maintenance of oral hygiene as before and 23%

had increase in level of comfort. Increase in level of comfort also states that there is better maintenance of oral hygiene in general. All these suggest that dentist play a major role in educating and spreading awareness about oral hygiene maintenance and bring about positive attitude in patients regarding dental care.

In interpreting the findings of the present study, it's important to outline the possible limitations. First this study was conducted among the patients attending A.B. Shetty Memorial Institute of Dental Sciences outpatient department and majority were from low socioeconomic status. 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. Secondly, because of the self-reported aspect of the data and patients interviewed, it is difficult to determine whether the response is affected by vulnerability.

Conclusion

The results of this study among the selected sample of patients attending A. B. Shetty Memorial Institute of Dental Sciences, (Mangalore) outpatients clinic, showed that only few patients knew about the dental implants prior to their visit to the dental clinic. Dentists were the main sources of information about dental implant. So dentists plays major role in educating patients about the aftercare needed for maintenance of dental implant. It also shows there is improvement in oral hygiene care but there is still need for educating patients regarding the proper oral hygiene practice. As this survey was conducted in a limited group of people, further studies are needed to be conducted amongst a larger group of people.

Conflict of Interest: None declared

Source of Support: Nil

Ethical Permission: Obtained

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