

Original article:

Knowledge and Attitude of the patients towards dental implant treatment for the missing teeth replacement in the Banaskantha Population

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Abstract:

Background: North side of Gujarat includes Banaskantha district, in which population is having lack of knowledge regarding the dental implant treatment for the missing teeth replacement.

Aim: To evaluate the knowledge and attitude of the patients towards the dental implant treatment for the missing teeth replacement as well as to evaluate the information source of their knowledge in the Banaskantha population.

Material and Methods: Patients visited to the one of the Dental College and Hospital as well as dental department of one of the Medical College and Research Institute of North Gujarat were asked to fill the self-explanatory questionnaire forms. From them, 150 patients who were from the Banaskantha were selected for the present study.

Results: Present study showed only 14.7% of the participants having knowledge about dental implant treatment. Thirty five per cent participants showed positive attitude towards dental implant treatment

Conclusions: It is concluded that lack of knowledge is present about the dental implant treatment in the Banaskantha population. Therefore, we tried to provide them an education related to the dental implant treatment.

Key-words: Dental Implant, Self-explanatory, Banaskantha

Introduction:

The principal purpose of Prosthodontics is rehabilitation of teeth and oral function.^[1] As a Prosthodontist, we restore the oral function and esthetics by replacement of missing teeth with removable partial dentures, fixed partial dentures, and dental implants.

Dental Implant is a prosthetic device made of alloplastic material(s) implanted into the oral tissues beneath the mucosal or/and periosteal layer, and on/or within the bone to provide retention and support for a fixed or removable dental prosthesis. An implant prosthesis may return the oral function to the near-normal limit than the other treatment options.^[2]

Currently, dental implants are widely accepted for the treatment of completely and partially edentulous patients, which led to widespread acceptance and popularity.^[3] Despite the high success rate, choice of dental implants as a treatment option is limited in suburban and rural areas.^[4]

Banaskantha is situated in North side of Gujarat. Here, the population is having lack of education regarding the dental treatment especially dental implant treatment for replacement of missing teeth. So we carried out the

present study to analyze the level of knowledge and their attitude towards dental implant treatment and also tried to give them an education regarding the same.

Subjects and Methods:

For this cross-sectional study, we selected the patients who visited the department of Prosthodontics of one of the dental colleges and dental department of one of the medical colleges of North Gujarat. Among 436 patients, 150 patients who were from the Banaskantha included while patients who were from other districts were excluded from the present study. The age at and above 18 years, willingness to fill the questionnaire form, and at least a single missing tooth were the inclusion criteria for this study. The age below 18 years and unwillingness to fill the questionnaire forms were exclusion criteria for the present study. Psychologically retarded patients, immuno-compromised patients, seriously ill patients were also excluded from this study. Gujarati written consent forms were also obtained from the patients. Ethical approval from the institutional ethics committee was also obtained.

We prepared the questionnaire forms in Gujarati language with questions related to personal information, related to knowledge, their source of knowledge and attitude of the patients. The participants were grouped according to the sex, various age groups and different occupational groups. Group A for male and group B for female while Age group A was 18- 40 years, B defined as 41-60 years and C age group was above 61 years. They were also grouped in Graduate/Postgraduate, B up to Standard 12, up to Standard 10, and Uneducated by education whereas employed/Professional, Businessman, Farmers and Unemployed/Housewife by occupation.

The participants were asked to fill the questionnaire forms. The data was collected from the responses of participants to various related questions from the filled questionnaire forms by using MS Excel Program. The statistical analysis was carried out by Pearson Chi-square test.

Results:

Results of present study showed only 14.7% of the participants having knowledge while 85.3% participants did not have knowledge for the dental implant treatment (Table-1). Age group B (41 to 60 years) showed more number of participants having knowledge as given in Table-2. About 54.5% participants knew about dental implant treatment were from education group C (Table-3). Occupations group A marked 40.3% participants having knowledge for the same as given in Table-4. Approximately Thirty five per cent participants showed positive attitude towards dental implant treatment (Table-5). Age group A and B showed more positive attitude and occupations group D showed more positive attitude followed by group A. There was 95.3% participants got satisfactory education regarding the dental implant treatment.

Table 1: Showing knowledge for dental implant treatment in male and female

Gender	Participants who are having knowledge of dental implant treatment		Participants who are not having knowledge about dental implant treatment		Total	
	n	%	n	%	n	%
Male	n=14	16.9%	n=69	83.1%	n=83	100%
Female	n=08	11.9%	n=59	88.1%	n=67	100%
Total	n=22	14.7%	n=128	85.3%	n=150	100%

(P-Value: 0.380)

Table 2: Showing knowledge for dental implant treatment in various age groups

Various Age group	Participants who are having knowledge of dental implant treatment		Participants who are not having knowledge of dental implant treatment		Total	
	n	%	n	%	n	%
A - From 18 to 40 years	n=01	2.9%	n=33	97.1%	n=34	100%
B - From 41 to 60 years	n=18	24.0%	n=57	76.0%	n=75	100%
C - 61 years and above	n=03	7.3%	n=38	92.7%	n=41	100%
Total	n=22	14.7%	n=128	85.3%	n=150	100%

P-Value: 0.005

Table 3: Showing knowledge for dental implant treatment in various education groups

Various Education groups	Participants who are having knowledge of dental implant treatment		Participants who are not having knowledge of dental implant treatment		Total	
	n	%	n	%	n	%
A - Graduate/ Postgraduate	n= 03	11.1%	n=24	88.9%	n=27	100%
B – Up to std. 12	n=04	22.2%	n=14	77.8%	n=18	100%
C – Up to std. 10	n=12	14.0%	n=07	86.0%	n=86	100%
D - Uneducated	n=03	15.8%	n=16	84.2%	n=19	100%
Total	n=22	14.7%	n=128	85.3%	n=150	100%

P- Value: 0.766

Table 4: Showing knowledge for dental implant treatment in various occupation groups

Various Occupation groups	Participants who are having knowledge of dental implant treatment		Participants who are not having knowledge of dental implant treatment		Total	
	n	%	n	%	n	%
A – Employed / Professional	n= 09	20.9%	n=34	79.1%	n=43	100%
B - Businessman	n=04	30.8%	n=09	69.2%	n=13	100%
C – Farmer	n=04	15.4%	n=22	84.6%	n=26	100%
D - Unemployed/Housewife	n=05	7.4%	n=63	92.6%	n=68	100%
Total	n=22	23.1%	n=128	76.9%	n=150	100%

P- Value: 0.136

Table 5: Showing attitude towards dental implant treatment

Participants Showing positive attitude	Participants showing negative attitude	Total	P-Value
n=53 35.3%	n=97 64.7%	n=150 100%	0.067

Discussion:

In developing countries such as India, awareness among the population is limited in terms of replacement of missing teeth, its benefits and ill effects of abstaining from replacement.^[5]

Banaskantha is situated in North Gujarat. Here, population is having farming as their major occupation. Patients are having lack of education even regarding the replacement of teeth. Therefore, it is necessary to give the education to the population regarding dental implant treatment to help the patients in the choice of the most appropriate option for the missing teeth replacement.

One hundred and fifty patients were chosen from the district of Banaskantha of North Gujarat for the present study. The results showed only 14.7% patients were having knowledge for the dental implant treatment. This was similar with the results of study done by Satpathy A et al.^[6] Previous studies done by Chaudhary et al, Bhat AM et al, Suprakash B et al, Gharpure AS et al, Kaurani P et al, Devraj CG et al and Shah RJ et al in the different regions marked higher awareness.^{[7], [8],[9],[10],[11],[12],[13]} The studies done in various regions of the nation could show different results.

Kelala-Kazadi E et al marked similar findings with the present study.^[14] Baqar et al cited lower per cent of awareness and knowledge in Karachi patients whereas Gbadebo OS et al cited higher awareness and knowledge in Nigerians.^{[15],[16]} However, the findings of our study are very much lesser than the previous

studies done by Berge TI in Norwegians, Pommer et al, Tepper et al in Austrian population, Zimmer et al. in Americans, and Aboung et al in Saudi Arabian people. The awareness reported by them is, 70, 72, 77, 79, and 60.44 percent respectively.^{[17],[18],[19],[20],[21]} Our India is a developing country and people is having still a low level of education as compared to the outer countries.

Our study marked more knowledge in the age group B that is 41 to 60 years which is in contrast to those studies reported by Divya et al, Devraj CG et al, Shah RJ et al.^{[5],[12],[13]}

In our study, higher per cent of knowledge showed in occupations group D, Unemployed/Housewife.

In present study, 76.2% percent participants cited the dentist as their source of knowledge followed by friends. Most of the previous studies also showed the similar results.^{[10],[13],[16],[18],[19],[21]}

Some previous studies which are done by Al-Johani et al, Baqar A et al and Alajlan A et al. cited friends and relatives as the main source of their knowledge for dental implants.^{[3],[15],[22]} Berge et al reported News media as a major source of information for their knowledge.^[17]

Our study showed only 35.3% participants having positive attitude towards the dental implant treatment especially in age group A and B and occupations group D and A. Satpathy et al, Bhat AM et al, Gharpure et al and Kumar S et al cited quite higher percent of positive attitude.^{[6],[8],[10],[23],[24]}

The results of the present study can be varied because this study carried out in limited population in short period. Further research may be carried out by involvement of larger number of population and in expanded area.

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