

Awareness and perception of patients towards treatment modalities as re-RCT or dental implants- A hospital based survey

Kunal Kumar¹, Shivendra Choudhary^{2*}, Revati Singh³, Sumit Kumar Yadav⁴, Neal Bharat Kedia⁵,
Abhinav Kumar Singh⁶

^{1,3}Senior Resident, ²Associate Professor, ^{4,6}Reader, ⁵Professor, ¹⁻³Dept. of Dentistry, ⁴⁻⁶Dept. of Orthodontics & Dentofacial Orthopedics, ¹⁻³Patna Medical College and Hospital, Patna, Bihar, ⁴DJ College of Dental Sciences & Research, Modinagar, Uttar Pradesh, ^{5,6}Buddha Institute of Dental Sciences and Hospital, Patna, Bihar, India

***Corresponding Author: Shivendra Choudhary**

Email: sky20083@gmail.com

Abstract

Teeth that are compromised secondary to endodontic failure may be salvaged with endodontic re-treatment having doubtful long term survival or a definitive treatment by placing dental implant. Evolution of implant dentistry has occur in innumerable manner since last few decades and also gained vast demand in the field of dental reclamation. Despite that, there is still a lack of patient awareness about the implants as an advanced treatment modality in cases where re-endodontic treatment success doubtful, it results in a lack of their active participation in acceptance of this modality as the option in treatment planning. The aim of this survey was to assess patient awareness and perception towards treatment modalities as re-RCT or dental implants with the help of a questionnaire. A questionnaire consisting of 11 multiple choice questions was used to assess the knowledge and awareness related to dental implants as a treatment option for the patients wanted to replace the severely damaged tooth. A total of 100 participants were selected for the survey to appoint them in the formative study. Percentage was calculated to study the awareness about implants or re-RCT as treatment option for poor prognosis teeth. Majority of patients opt for implant placement due to previous failure of treatment on compromised tooth. Among the selected participants only 21% were aware about dental implants as a treatment choice for rehabilitation of oral cavity. The chief source of information regarding prosthetic options was through closed acquaintance or relatives (74%), and dentists contribute only 26% in this behalf. Present survey conducted on patients visiting outpatient department of dentistry for oral rehabilitation exhibited that patient's awareness regarding dental implants was minimal and the patient's knowledge regarding prosthetic options was depthless. As this was the pilot survey, further study should be conducted with consideration of more variables and with increase in sample size.

Keywords: Dental Implant, Questionnaire, re-RCT.

Introduction

The loss of natural teeth is always considered as a general health issue for the reason being it affects the person's functional, esthetic, and other behavioural status. Restoration of oral cavity using various available treatment options for the rehabilitation of functional and esthetic adaptability is a part of operative dentistry. Teeth that are compromised secondary to endodontic failure may be salvaged with endodontic re-treatment but with doubtful success. However, dental implants, providing definitive treatment option, have become popular, accepted and widely used treatment option for oral rehabilitation in the field of dentistry. India being a developing country still needs an up gradation of treatment modalities

approach to improve treatment outcome as awareness and knowledge about dental implants as is deficient especially in rural areas.¹⁻³

Several studies have been done regarding the awareness of dental implants not only in various parts of India but similarly in other developed/ developing countries too which confined their results suggesting that patients belonging to urban areas are more aware of dental implants as treatment option for the rehabilitation of severely damaged teeth.⁴⁻⁹ This means that there is still a lack of patient awareness about the implant procedure, which results in a lack of their active participation in acceptance of this modality as the treatment plan. Thus, the need of the hour is to assess the level of awareness, knowledge and

acceptance of dental implants as a treatment option for severely damaged and beyond repair teeth in all socio-economic groups. A questionnaire was prepared and the pilot survey was done to assess the awareness and perception towards treatment modalities as re-RCT or dental implants among the patient visiting Department of Dentistry, Patna Medical College and Hospital. Simultaneously, dental education to these patients regarding implants as treatment option was also provided, for developing positive attitude among the population.

Materials and Methods

The present pilot survey was conducted on the patients visiting the OPD of Department of Dentistry, Patna Medical College and Hospital, Patna. A questionnaire was prepared and the concerned data was collected from selected total of 100 participants (50 males and 50 females) who were ready to participate in the study with full consent. All the selected participants were having severely compromised tooth/ teeth within the age range of 20–60 years.

Self-explanatory close-ended sets of questions were prepared to assess the patient's knowledge and awareness regarding treatment option as re-RCT or dental implants by revalidating the previous questionnaire adopted by Tepper et al., 2003. Thorough examination was done by 3 faculty members and necessary modifications were done accordingly. The survey questionnaire comprised of analytic variables and 2 sets of 11 multiple-choice questions [Table 1]. The first set includes questions related to dental status, replacement for compromised teeth, and the general perception towards the need for prosthodontic evaluation. Whereas the other set includes questions to assess the awareness and knowledge about dental implants as a treatment option. Percentage was calculated to study the awareness about implants as treatment option for replacing severely damaged teeth.

Results

The survey sample comprised of 100 patients among which 50(50%) were males and 50 (50%) were

females. The age of selected participants was in the range of 20–60 years, among which 60% falls in the age of 40–60 years and remaining 40% were from age range of 20–40 years. The level of education of 30 participants (30%) was graduation and above. Majority of patients opted for implant and reason for choosing implant as treatment option was equally distributed as failure of previous RCT, considering implants as permanent option and better outcome. 50% participants felt the need of prosthesis because of esthetic concern, 30% need it for functional purposes like for proper chewing of food etc. while only 20% felt the definitive need for prosthetic rehabilitation as general health issue. The awareness level with reference to prosthetic options varied, as 100% of the participants insightful about re-RCT or extraction with bridge and only 21% of the participants were aware of dental implants. Among these 21 participants only 7 were having proper knowledge and outputs of dental implants while other 14 were just having some superficial idea regarding the same. The chief source of information regarding prosthetic options was through closed acquaintance or relatives (74%), and dentists contribute only 26% in this behalf. Surprisingly, none of the participants had information from electronic media such as television, radio or internet. 64 participants (64%) were in delusion that post treatment care of dental implants is more tedious as it require more time and instrumentation while 36% of them felt that implants require similar care as the natural teeth. Regarding the lifespan of an implant, only 5 patients were aware of average lifespan of an implant, while remaining (95%) felt it lasted for a lifetime. After thorough education regarding all the benefits and limitations of dental implant surprisingly all (100%) were willing for implants as a preferred choice in spite of a surgical process but due to high cost involved only 10% finalized as an option. After this educational output, all the 100 participants felt that their fixed nature is the biggest advantage. In the present survey males (70%) were more aware especially those whom education level was graduation and above (90%).

Table 1: Questionnaire to assess the awareness and perception of patients towards dental implants

1. Gender: Male/ Female
2. Age: 20-40yrs/ 41-60yrs
3. Education: illiterate/ less than middle school/ upto high school/ upto graduation./ above graduation
4. Number of missing teeth: 1-5/6-10/ completely edentulous
5. Is it necessary to replace missing teeth? (Perception) Yes, definitely / Yes, if it affects the looks / Yes, because of chewing purpose
6. Options for replacing missing teeth (Awareness) Bridge /Removable/ Complete Denture/ Implants
7. Source of information about prosthetic options TV/radio/Internet/ Dentist / Closed acquaintance or Relatives
8. How much knowledge about implants Well informed/ Superficial idea/ Poorly informed
9. How long do you think an implant lasts? Up to 10 years / 10-20 years / For a lifetime
10. Knowledge about post treatment care of dental implants? Similar to natural teeth / Need more care than natural teeth
11. Biggest disadvantage of dental implants High cost/ Need of surgery/ Long treatment time

Discussion

Dental implants have been originated as an ideal treatment option worldwide for replacing severely compromised tooth/teeth or partial or completely edentulous arches as the results are promising and distinctive. However, in developing countries like India, there is lack of awareness which further limits the number of patients approaching dental implants as treatment option. Numerous factors including cost, availability and knowledge play role which affect the choice of patients to choose dental implant as treatment modality in these countries.³ Worldwide there is positive evaluation and acceptance of dental implants by patients as there is better education is available regarding the same and other inhibitory factors are minimal.⁵ Looking at the paucity of studies or patient's feedback in India with definitive data we have taken this pilot survey to assess the participants knowledge and their need for more information related to dental implants as an option to replacing compromised teeth in a sample of dental patients visiting Medical College, Patna.

In the present survey, 50% participants felt the need of prosthesis because of esthetic concern, 30% need it for functional purposes like for proper chewing of food

etc. while only 20% felt the definitive need for

prosthetic rehabilitation as general health issue. These 20% comprised of mainly males with education level was graduation or above. Similarly in Sweden population 79% participants were not in favour of replacing missing teeth.⁶ Now it's our turn as a dentist to make more effort to educate patients regarding the consequences of ignoring such dental treatment which not only affects the masticatory function but also the general well being.

The awareness level with reference to prosthetic options varied, as 100% of the participants insightful about re- RCT or extraction followed by bridge and only 21% of the participants were aware of dental implants. Among these 21 participants only 7 were having proper knowledge and outputs of dental implants while other 14 were just having some superficial idea regarding the same. This is in contrast with the results reported by Tepper et al and Berge et al in Austrian and Norway population.^{7,8} This survey is in congruence with studies conducted by Gharpure et al, Satpathy et al and Padhye et al in Indian population which also showed below optimum levels of awareness.⁹⁻¹¹ The lesser subjective awareness in

Indian studies can be attributed to the lower socioeconomic status and education levels of these region.

The chief source of information regarding prosthetic options was through closed acquaintance or relatives (74%), and dentists contribute only 26% in this behalf. Surprisingly, none of the participants had information from electronic media such as television, radio or internet. This finding is quite different from those published before which can also contribute to the fact that diversity in Indian population and different regions. Our results were in accordance with similar study done on Saudi Arabia population where the main source of information was from friends and relatives.¹² Contrastingly, Zimmer et al. in his study showed that the media was the main source of information in gaining knowledge of dental implants.¹³ Therefore, we can postulate the fact that relatives and closed ones play a significant role in motivation of oral rehabilitation.

64 participants (64%) were in delusion that post treatment care of dental implants is more tedious as it require more time and instrumentation while 36% of them felt that implants require similar care as the natural teeth. Regarding the lifespan of an implant, only 5 patients were aware of average lifespan of an implant, while remaining (95%) felt it lasted for a lifetime. After thorough education regarding all the benefits and limitations of dental implant surprisingly all (100%) were willing for implants as a preferred choice in spite of a surgical process but due to high cost involved only 10% finalized as an option. After this educational output, all the 100 participants felt that their fixed nature is the biggest advantage. In the present survey males (70%) were more aware especially those whom education level was graduation and above (90%).

Concluding with the fact that, patients consider various disadvantages about dental implants, among which high cost was the major contributing factor followed by apprehension regarding post treatment care. Other disadvantages mentioned by the participants were treatment time and surgical approach. Kohli et al¹⁴ and Zimmer et al¹³ also concluded that majority of study group considered the high cost as a hindrance factor for dental implants.¹⁴

Providing dental education regarding implants is the necessity of an hour for developing positive attitude among the Indian population.

Conclusion

Re- RCT was not preferable for majority of patients as treatment option for severely compromised teeth. The present conducted survey revealed that patient's awareness regarding dental implants was not at par and the patients had only superficial knowledge regarding definitive treatment options especially implants. As this was the pilot survey, further study should be conducted with consideration of more variables and with increase in sample size. Further note should be added on educational programmes regarding the same which will be a definitive marker in the up gradation of implant dentistry.

Source of Funding

None.

Conflict of Interest

None.

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