Public Awareness of Dental Implants in Randomly Selected Sample in Kashmir

**ABSTRACT**

**Aim:** The aim of this survey was to assess the public awareness of dental implants in patients attending the Department of Prosthodontics in Government Dental College & Hospital, Srinagar, Kashmir.

**Methodology:** This Questionnaire based study was conducted during Feb-Apr 2017, for a period of 3 months. All patients attending the outpatient Department of Prosthodontics in Government Dental College & Hospital, Srinagar, and Kashmir were included in the study.

**Results:** Mean age of the study population was 44.99 ± 16.273, male outnumbered by 1.6 and most of the study population was less educated and unemployed and unskilled workers. Primary reason for outdoor consultation was for replacement of lost tooth/teeth (81.7%). Only 35% of the people in Srinagar were aware about dental implants as a treatment modality. High cost of the implants is one of the major limiting factors working against willingness of patients to undergo this treatment. Majority of the studied patients were not aware of details of dental implants, procedure, advantages and disadvantages.

**Conclusion:** Majority of study population was unaware of dental implant. There was significant association of education and occupation and knowledge about dental implant procedure, advantages, disadvantages, willingness for implant and knowledge about cost of dental implant.

**Keywords:** Solar Cells, Arduino, AC Power, DC Motor.

1. **INTRODUCTION**

Dental implant is increasingly becoming a widely accepted treatment approach in dentistry for the replacement of missing teeth. The success and good prognosis of this treatment has made it very popular among the dentists, offering implant-supported rehabilitation to patients having lost teeth, or those with severely compromised bone structure. Lack of adequate awareness exists in people about dental implant as a treatment modality. Awareness amongst patients regarding the procedure can help in eliminating negative image of the procedure that may have been caused due to lack of adequate communication. In India dentist is the main source of information about implants. The right kind of information, if channelized to the patients correctly, will further help in promoting this superior treatment as a treatment option amongst the patients. To the authors’ knowledge, there are no data available in the literature which evaluates the dental patients’ awareness and knowledge toward dental implants in Srinagar. Hence, the aim of this survey was to assess the level, sources, and need for information about dental implants along with willingness of dental implants among the randomly selected sample of dental patients attending dental OPD’s in Srinagar city.
2. METHODOLOGY
This Questionnaire based study was conducted during Feb-Apr 2017, for a period of 3 months. All patients attending the outpatient Department of Prosthodontics in Government Dental College & Hospital, Srinagar, and Kashmir were included in the study. The sample size for this survey was taken as 100. The participants were informed about the study after which a verbal consent was obtained for their participation. Those who were not willing to participate were excluded. A self explanatory questionnaire was designed to assess the patient’s knowledge and awareness about dental implants.

3. RESULTS
A total of 112 respondents were interviewed, out of which 12 had to be excluded on account of incomplete questionnaire. Age range of population was from 18 years to 80 years with mean age of 44.99 (+/- 16.273) and male to female ratio of 1.6:1. Most of our study population (58%) was below secondary educated while 42% were above graduate. Also most (71%) were unemployed or unskilled workers and 29% were professionals or businessmen. (Table No. 1)

Table No. 1. Descriptive Statistics of the Study Population

<table>
<thead>
<tr>
<th>Gender</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>Female</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uneducated</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Primary</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Secondary</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Graduate</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Unemployed/Housewife</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Unskilled</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Professional</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Business</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Primary reason for outdoor consultation was for replacement of lost tooth/teeth (81.7% ) while 4.9% have come for prosthesis placement, 2.6% for pain and rest with other complaints (table no 2.) A majority of our study population favored (95, 95%) replacement of missing teeth. There was no significant association between the two genders, level of education and occupation and knowledge about replacement of missing teeth.

Only few (15%) patients knew about implant supported reconstruction as compared to other options as shown in table 2. A significantly higher proportion did not know about implant as compared to other options (p<0.001). There was no significance of gender and question of alternatives for replacement of teeth. There was significant association of education and level of occupation as p value was <0.0001 as more of the educated and well occupied persons were known to implant supported reconstructions

Table no.2 Distribution of study population on the basis of question 2 of Alternatives for replacing teeth do you know

<table>
<thead>
<tr>
<th>Replacement Options</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed partial dentures</td>
<td>46</td>
<td>54</td>
<td>100</td>
</tr>
<tr>
<td>Removable partial dentures</td>
<td>19</td>
<td>81</td>
<td>100</td>
</tr>
<tr>
<td>Removable complete dentures</td>
<td>22</td>
<td>78</td>
<td>100</td>
</tr>
<tr>
<td>Implant supported reconstructions</td>
<td>15</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

Knowledge about Dental Implant as a Tooth Replacement Option
Sixty seven (67%) participants had not heard of dental implant while only thirty three (33%) have heard about it as an option for replacing missing teeth. Of these 69 (69%) were not at all aware about details of dental implants and 87 (87%) denied about implant placement procedure. But 97 (97%) patients consented to know more about implants. There was no significant association between either genders. While 16 (16%) participants would not like to have implant-retained prosthesis as an option for replacement of missing teeth, 13(13%) said they are not sure, while majority, 71 (71%) were willing to have implant when explained of the 16 participants who gave reasons why they would not like to have their missing teeth/tooth replaced with dental implant, majority(78%) claimed that they needed more care than natural teeth, while 13 (13%) thought it cleaned like natural teeth and 8 (8%) thought they needed less care than natural teeth.
As per the patients, advantages of dental implant supported dentures/bridges 21(21%) found replacement as better choice, 4 (4%) thought implant looks better, 28 (28%) thought it to be good in function and 47 (47%) thinks implant avoids grinding of natural teeth. A statistically significant relationship was found when education and occupation on implant and if participant would consider implant is well explained. (p<0.001).

Knowledge about Cost of Implant
Among the participants who have heard about implant, only 45% have knowledge about cost implication, rest have wrong information on the cost. The study also showed a statistically significant relationship between those who have heard about implant retained prosthesis and their knowledge of cost implication (p<0.001)

4. DISCUSSION
Dental implants appear to be an increasingly successful substitute for the replacement of missing teeth, as reported in several studies worldwide. However, the extent of awareness concerning this procedure in Srinagar has remained undetermined, with no previous studies addressing this aspect from this part of the world. To study implant awareness in different counties, various studies have reported different levels of awareness on dental implants, with maximum being from Austria (79%) and US study (77%), followed by Norway (70%).

The present study showed a high rate of awareness of replacement of missing teeth with 95% of the participants being aware that missing teeth can be replaced. Furthermore, the option of fixed partial denture for tooth replacement was the most recognized by the participants. Although removable partial denture has been most widely available and traditional way of replacement in this place; it is relatively cheap and affordable for most socioeconomic classes in resource poor settings but it has to be removed frequently so patient preferred FPD.

While 32(32%) of the participants have heard about dental implant, only 12% of them aware that it is an option of replacement of missing teeth. There was a significant relationship (p < 0.001) when those who were aware of possible replacement of missing teeth, with a higher proportion of those who have knowledge of replacement of missing teeth showing low knowledge about dental implant as an option of tooth replacement.

The level of awareness of implant as an option for replacement of missing teeth recorded in this study is similar to other Indian studies as 23.24% by Chowdhry R², 38% by Pragati K¹⁴ and others ⁶. Most of our study population (58%) was below secondary educated and most (71%) were uneducated or unskilled workers. Our study also showed significant association of education and level of occupation as p value was <0.0001 as more of the educated and well occupied persons were known to implant supported reconstructions.

Dentists were the major source of information (73%) to those who have heard about dental implants followed by friends, media and general practitioners. This is similar to the study by Pragati K¹⁴, Satpathy A¹⁰ and Ravi CK¹¹ which recorded dentists being main source of information. However this result is contrary to some other studies ¹⁵,¹⁶,¹⁷ that have media and internet as the major source of information on dental implant.

Majority of our participants (71%) were willing to have implant prosthesis when explained about benefits, some were also not willing while some were not sure about implant and reason explained by them was, implant needed more care. While 68% of our participants were not satisfied with removable replacement denture and 61% opted implants are good for everyone but only 44% claimed to consider implant retained prosthesis as an option for tooth replacement.

There was also misconception and low knowledge about the cost implication of dental implants who have heard about it, with just 45% were rightly informed. This low awareness and misconception about cost is similar to that reported by Tepper¹⁸ and Rustermeyer.¹⁹

5. SUMMARY & CONCLUSION
Within the limitations of this study, it can be concluded that only 35% of the people in Srinagar were aware about dental implants as a treatment modality. Dentists were the main source of information regarding dental implants amongst the people. This clearly indicates the lack of efforts by dentists and the governing bodies regarding taking necessary steps for creating awareness amongst the people. The high cost of the implants is one of the major limiting factors working against willingness of patients to undergo this treatment.

6. REFERENCES