Survey-Based Research on Knowledge, Awareness, Attitude and Behaviour About Prosthodontic Treatment for Missing Teeth Among Patients in South India

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ABSTRACT

Purpose: The purpose of this study was to evaluate the level of awareness, knowledge, attitude and behaviour of the population aged 16-84 years toward the presence of missing teeth and prosthodontic treatment options available for replacing those missing teeth.

Study Selection: A pre-structured multiple-choice questionnaire consisting of socio-demographic questions were given to random 300 patients after obtaining their informed consent. The questions included in the survey helped to assess the level of knowledge and awareness of patients towards prosthodontic treatment as a whole.

Results: All the age group population were aware of missing teeth in their mouth and they are aware of the replacement of those missing teeth also. Among subjects with degree education, 18% choice was removable, 38.5% choice was fixed partial denture and other 38.5 % choice was implant option. For 61.6% of the elder group, 47.6% of the middle age group and 32.7% of the younger adults, friends and relatives were the sources of information.

Conclusion: Within the limitations of this study it can be concluded that an improvement of knowledge and awareness of patients about the prosthodontic treatment has been observed. Concerning the choice of prosthodontics treatment options, the elderly age group choice for the treatment options was a removable denture. Individuals with higher education selected the fixed denture and the implant as a treatment option.

Key Words: Knowledge, Prostheses, Awareness, Education, Dental health

INTRODUCTION

Prosthodontics involves the replacement of partial or complete loss of teeth and its associated oral function due to tooth or tissue harm.\textsuperscript{1} Prosthetic treatment comprises the replacement of single or more missing teeth, the functional replacement of nearly all teeth in a severely damaged dentition, or restoring its function using removable or fixed partial dentures, complete dentures, overdentures or implants.\textsuperscript{2}

For a specific clinical condition, several prosthetic treatment alternatives might be available, like removable, fixed or implant-supported prostheses. Commonly, the inception of prosthodontics treatment choices and preference of treatment has been perceived as an aspect of the specialist’s responsibility. In contemporary clinical practice, patients are consecutively speculating a key role in choosing their actual treatment requirements by revealing their predictions and constraints.\textsuperscript{3} The three major areas like patient comfort, function, and aesthetics will influence the adequacy of treatment. Patient comfort and function are determined by mechanical and biological components. However, acceptance of the aesthetic feature of prosthodontics treatment is decided by a variety of social, cultural impacts, attitudes and faith.\textsuperscript{4} Patients’ attitudes concerning treatment, sustained using a questionnaire before the patients receive the treatment, could be a prospective tool to affect satisfaction with the
definite treatment. For an individual to have dental prosthetic treatment it is expected to have a close correlation with socio-demographic factors such as age, gender, education, financial status, individual interest and their health assurance, and surrounding environment. Knowledge of patients concerning prosthodontics treatment may have a key role in their prostheses acceptance.

Nowadays, from the point of view of occlusion support, adjacent teeth preservation, and avoidance of a removable partial denture the implant-supported prostheses can be reviewed as the treatment of choice (RPD). The studies have reported that patients highly accepted dental implants for prosthodontic treatment. In many developing countries the usage of dental implants is increasing. However, between individuals and countries, the thoughts and knowledge of patients about dental implants varies. Only 23.24% of the non-rural population heard about dental implants in an Indian study. In another Indian study, it was shown that only 33% of the participants had heard of dental implants. Patients awareness and knowledge of implant should be evaluated to allow the patient to decide the most appropriate option.

In India, we have fewer studies on the evaluation of the attitude of patients toward the replacement of teeth. Additionally, such studies results cannot be generalized as the population sample varies according to geographical location. Therefore, the purpose of this study was to evaluate the level of awareness, knowledge, attitude and behaviour of the population aged 16-84 years toward the presence of missing teeth and prosthodontic treatment options available for replacing those missing teeth and the factors which prevented them from taking treatment before among the patients who reported to our institute, which is located in the southernmost region of the state of Karnataka in the south region of India.

**MATERIALS AND METHODS**

**Ethics**

A cross-sectional epidemiological survey was conducted at JSS Dental College and Hospital a constituent college of JSS Academy of higher education and research Mysore. The patients’ details were collected. The survey was conducted on the patients coming to the outpatient department of the Prosthodontics in the college and Hospital, Mysore, Karnataka, South India, after obtaining ethical clearance( No-JSS/DCH/Ethical/06/2016-17(2)) from the Institutional Ethics Committee confidential throughout the study process.

**Study design**

A pre-structured multiple-choice questionnaire consisting of socio-demographic questions were given to random 300 patients after obtaining their informed consent. The questions included in the survey helped to assess the level of knowledge and awareness of patients towards prosthodontic treatment as a whole. Few questions assessed the patients past dental experience, their expectations, knowledge on different prostheses available and their preferred choice for the treatment available, source of information for the prosthesis and the maintenance requirement of the available prosthesis.

**Inclusion criteria**

All patients above the age of 18 years visiting the outpatient department of Prosthodontics, JSS Dental College, either for the first time or otherwise will be included in the study.

**Exclusion criteria**

1. Mentally compromised patients
2. Patients not fitting in the desired age group.
3. Patients suffering from any acute illness and cognitive impairment at the time of study

**RESULTS**

The software that was used for statistical analysis was Statistical Package for Social Sciences (SPSS version 21.0).

The majority of the population who participated in the study had good past dental experience. Past dental experience is shown in table 1.

**Awareness of the missing teeth replacement**

All the age group population were aware of missing teeth in their mouth and they are aware of the replacement of those missing teeth also. 12% of the total patient were unaware of the replacement of the missing teeth. Awareness of missing teeth is shown in table 2 and figure 2.

**Awareness of the different available prostheses**

66.3% of the total population were aware of the complete denture, 49.3% were aware of removable partial denture, 54.3% were aware of the fixed partial denture and 26.3% were aware of the Implants.

23% of middle-aged and 17.6% of elderly were aware of the complete denture, removable partial denture and fixed partial denture together. 20.4% of younger adults were aware of fixed dentures and implants together. Whereas 10.2% of younger and middle-aged populations were aware of all the available prosthodontics treatment options. (table 3)

Among the Illiterate subjects majority of them were aware of the complete denture, the remaining 15% illiterate subjects were aware of both complete denture and removable partial
denture, together, other 15% illiterate were aware of all complete dentures, removable partial denture and fixed dentures together. 20.9% of Subjects of primary and 21.8% subjects of High school education background were aware of both removable and fixed dentures.

Among subjects with degree education, 14.6% of subjects were aware of both removable and fixed dentures together, 12.5% were aware of all removable, fixed and implant together and the remaining 13.5% were aware of all the treatment options available 20.3% male and 11.7% female group were aware of only complete dentures, and 21.1% female and 16.3% male group were aware of both removable and fixed dentures. Whereas 10.2% female and 5.8% male group were aware of all the prosthetics treatment options available. (table 4)

All the participants are aware of the JSS dental college and Hospital where replacement of teeth will be done

Patient choice of prosthesis
Among the elder age group, 64.8% of subjects choice was removable denture and 20.8% choice was fixed denture, 1.6% choice was implanted. 30.6% of the younger adults choice was fixed denture, 57.1% of the younger adults choice was implanted. And even most of the middle-aged population choice was fixed denture and implant. (table 5)

Among illiterate subjects, 69.7% choice was removable denture, 18.2% choice was fixed denture. Among subjects with primary education 63.7% choice was removable denture, 23.6% choice was fixed partial denture. Among subjects with high school education 36.3% choice was removable denture, 29.7% choice was fixed partial denture, Among subjects with pre-university education 32% choice was removable 32% choice was fixed partial denture and 28% choice was an implant. Among subjects with degree education, 18% choice was removable, 38.5% choice was fixed partial denture and other 38.5% choice was implant option. (table 6)

Compare to the male group female group opted for fixed partial denture and implant options for the replacement. (table 7)

Regular visit for a checkup
Interestingly 81% of the total population believe in regular visits for dental checks up.14.7% of individuals want to visit on the requirement.

In the gender category, there was a common opinion on the regular visit for a checkup

Maintenance of the prostheses
Most of the population believe in the maintenance of prostheses. Both female and male groups believe in the maintenance of the prostheses.

Source of Information
For 61.6% of the elder group, 47.6% of the middle age group and 32.7% of the younger adults, friends and relatives were the sources of information. For 49.0% elder group, 29.4% middle age group and 24.0% younger adults, Dentists were the source of information. For 75.8% illiterate subjects and 61.8% subjects with primary education, 53.8% subjects with high school education, 48% with pre-university education friends and relatives were the source of information. For 45.8% of subjects with degrees, dentists are the source of information. For 53.1% female and 49.4% male group, friends and relatives are the sources of information. (table 8 and table 9)

Reason for not replacing the teeth
Out of the total population, 23.3% gave the reason of financial constraint, 13.3% reason was inadequate knowledge and 12.7% were not motivated. 30.3% of the Illiterate subjects were not motivated, 30.2% of subjects with a degree education gave the reason of financial constraint. 24.2% female and 22.7% male group gave the reason of financial constraint. (table 10)

DISCUSSION
In a developing country like India, statistical analysis on patients’ knowledge, awareness, attitude towards tooth replacement are minimal. So an attempt was made to find out the level of knowledge, awareness and attitude towards the replacement of teeth among patients reporting to the JSS Dental College and Hospital, Mysore.

Since the patients in our study had reported on their own to the hospital for replacement of teeth, it was expected to find that all the subjects expressed their missing teeth had to be replaced, but 12% of the population was unaware of replacement of teeth because they had no missing teeth so the higher level of awareness in these populations is required during routine dental consultations and educative counselling during these consultations. (table 2)

While the removable prosthetics options were known to most of the patients(66.3%), their awareness of fixed partial denture(54.3%), tooth and implant-supported prostheses (26.3%) were also at a higher level. (Figure 2) Younger and middle-aged populations ((10.2%) were aware of all the prosthetics treatment options available. Similar findings were observed in a study conducted by Suprakash et al (2013), age also showed differences in treatment wise as younger people being more enthusiastic and educated were knowing this treatment in large numbers.12

Education is a key factor in prosthesis consultation.14 In their study, Shah et al. reported that the prevalence of wearing
dentures increased with the increase in the level of literacy.\textsuperscript{15} It may be that individuals with higher educational achievements have greater health concerns and thus seek prosthodontics care more often than those with lower levels of education. A high level of education may be one of the main reasons that the majority of the population with the education of degree were aware of all the prosthodontics treatment options available.

Both female and male groups had the awareness of the missing teeth. In case of knowledge on prosthodontics treatment options available, females knew all the treatment options available compared to the male group. The female group were aware of both removable and fixed denture available. Similarly, females having more knowledge as compared to males, these findings are similar to this study.\textsuperscript{16} In another study while 26 females and 17 males were preferred FPD as treatment modalities.\textsuperscript{17}

Interestingly all the participants were familiar with the college and hospital where the treatment can be taken. Most of the patients opted to get treated from the dental college than private clinics; this may be to reduce the financial burden following a prosthetic replacement.

In the current study majority of the elderly age group choice for the treatment options were removable dentures as they were more aware of it, some of the individuals who have already been rehabilitated, the denture is most frequently used and they were comfortable and familiar with the removable denture as it is inexpensive and seems more accessible to them depending on their socio-economical level.\textsuperscript{18} Although 20.8% elder individuals choice was fixed denture and similar to another study the implant choice was less in this age group so education and motivation are required for this group regarding implant.\textsuperscript{14} Whereas younger age group majority of them opted implant and remaining participants fixed prostheses this may be due to the increase in technology and media. In addition, young people are more concerned about their appearance and teeth.\textsuperscript{(table 5)}

Even though data are scarce regarding patient’s preferences in the field of fixed prosthodontics, this study shows an increase in demand for fixed partial dentures by the individual with knowledge of the same.\textsuperscript{(Figure 3)}

The income and educational status of individuals are often correlated. The majority of Illiterate individuals opted for the removable dentures, they may be familiar with the existing dentures or maybe the financial constraint to opt for the fixed denture. Individuals with degree education selected the fixed denture and the implant as a treatment option, it may be that individuals with higher educational attainments have greater health concerns and thus seek prosthodontics care more often than those with lower levels of education.\textsuperscript{14}(\textsuperscript{table 6 and figure 1})

We consider the fact that more than 95% of the participants were aware that regular dental visits are required to maintain the optimum oral and dental health of an individual to be a positive factor. The participants’ awareness of regular dental visits was also assessed according to variables such as gender, age and educational level and the results revealed that it is statistically significant when gender, ethnicity and educational levels were considered.

\textbf{More than 95% of the individuals believe in the maintenance of the prostheses}

For the majority of individuals, friends and relatives are the sources of information. This claim is supported by the fact that most of the patients (about 34\%) highlighted that their source of information on prosthodontics options was friends or relatives.\textsuperscript{19} Whereas for subjects with degree education, dentists are the source of information because they may be visiting the dentists regularly, so here it is very important for the dentists to educate and motivate the patient during the clinical examination itself regarding the awareness, need for prosthodontics treatment, different treatment options available, maintenance of oral hygiene as well as prostheses. However, a study by Mukatash et al.\textsuperscript{2} carried out in Jordan found that the major source of information for patients is dentists. Similarly, another study highlights the significant role that the dentists play a vital role in the spread of awareness about prosthodontics treatment and they prove a good source of information which facilitates further spread of information to patient’s friends and relatives. Like another study,\textsuperscript{19} our study reveal that mass media does not play a significant role in the education on prosthodontics aspects of dental health. Hence media can play a role in educating the public about dental treatment options for missing teeth.\textsuperscript{(figure 4)}

In agreement with the findings of other studies\textsuperscript{20,21} the current study shows the majority of them gave the reason of financial constraint for not replacing the teeth even though they knew (\textsuperscript{table 10}). Illiterate individuals were not motivated for replacing teeth, so here dental health check-up camps play a vital role, as well as the mass media and dentists, are very important to motivate them. Health insurances should provide benefits to prosthodontics rehabilitation and other dental treatment as well.

Similar to a study,\textsuperscript{22} very few patients expressed a lack of knowledge regarding the replacement of teeth.

In India, overall coverage of dental health insurance is low; approximately 10 per cent of the population is assessed to approach health insurance coverage. Generally, the health care demands of the rural poor individuals and informal workers have been to a great extent neglected. Despite this, several initiatives have been tried. Data Bhagya yojana an oral health initiative by Karnataka State Government provide free dentures to senior citizens with complete tooth loss(aged 60
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or above) belonging to the below poverty line families. The scheme was launched in 2014 December and is aimed at providing free dentures to at least 30,000 senior citizens. The State Government has involved 45 government and private dental colleges in the State to implement the Danta Bhagya scheme. Our Institution is one among them to rehabilitate the individuals under Danta Bhagya Yojana. The scheme provided free dentures to patients above 60 years of age and residing in Karnataka with BPL cardholders. The modification was done regarding the age group and reduced to 45 years to provide free dentures to a larger population and partial denture was also included in the scheme for loss of more than 3 teeth. This oral health policy will have a positive impact on the state of dental health in the State.

So systemic community-based oral health promotion should be strengthened, which stress upon the possibilities and limitations of any prosthetic replacement a patient may prefer utilizing different available media.

Future studies should determine how the dental profession and society might address the increased demand for services among people who have limited financial resources. These studies would provide important insights into the various types of assistance and insurance programs that might be designed and implemented to benefit each individual.

Limitations

The limitation in this study is that it was conducted only on patients visiting JSS Dental College and Hospital and was not representative of the general population and hence the results cannot be generalized to the whole population.

CONCLUSION

Within the limitations of this study, it can be concluded that,

• An improvement of knowledge and awareness of patients about prosthodontic treatment has been observed.
• Knowledge, awareness of patients and choice of patients regarding prosthodontics treatment are different among the age groups, gender, education of populations.
• Concerning the knowledge and awareness of patients about the prosthodontics treatment, the removable prosthodontics options were known to most of the patients, their awareness of a fixed partial denture, and implant-supported prostheses were also at a higher level.
• Concerning the choice of prosthodontics treatment options, the elderly age group choice for the treatment options was removable denture as they were more aware of it, as it is inexpensive and seems more accessible to them depending on their socio-economical level but the implant choice was less in this age group so education and motivation is required for this group regarding implant.
• Individuals with higher education selected the fixed denture and the implant as treatment options, it may be that individuals with higher educational attainments have greater health concerns and thus seek prosthodontics care more often than those with lower levels of education.
• Friends and relatives are the most common source of information for the patients in terms of education about different treatment options available to replace the missing teeth.
• The financial burden for the patients who have not taken treatment.
• The majority of the participants are aware that regular dental visits are required to maintain the optimum oral and dental health of an individual to be a positive factor and they believe in the maintenance of the protheses as well.

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17. Table 1: Past dental experience of the participants

| Past Dental Experience | Count | Percentage % |
|-------------------------|-------|--------------|
| Bad                     | 3     | 1.0%         |
| Good                    | 182   | 60.7%        |
| Nil                     | 27    | 9.0%         |
| Satisfactory           | 45    | 15.0%        |
| Very Good               | 43    | 14.3%        |

18. Table 2: Awareness of missing teeth

| Are you aware that missing teeth have to be replaced | Count | Percentage % |
|-----------------------------------------------------|-------|--------------|
| Yes                                                  | 264   | 88.0%        |
| No                                                   | 36    | 12.0%        |

19. Table 3: Awareness of different age group populations on available prostheses (a. Complete Denture, b. Removable Partial Denture, c. Fixed Partial Denture, d. Implant  e. Not aware)

| Age | Young adult(18-35) | Middle Aged (36-59) | Elderly (Above 60) |
|-----|--------------------|---------------------|--------------------|
| N   | %                  | N                  | %                  | N      | %      |
| a   | 1  2.0%            | 15                 | 11.9%              | 34     | 27.4%  |
| b   | 1  2.0%            | 4                  | 3.2%               | 1      | 0.8%   |
| c   | 2  4.1%            | 4                  | 3.2%               | 3      | 2.4%   |
| d   | 3  6.1%            | 0                  | 0.0%               | 2      | 1.6%   |
| e   | 4  8.2%            | 18                 | 14.3%              | 16     | 12.8%  |
| a,b | 0  0.0%            | 11                 | 8.7%               | 23     | 19.2%  |
Table 3: (Continued)

| Age        | Young adult (18-35) | Middle Aged (36-59) | Elderly (Above 60) |
|------------|---------------------|---------------------|-------------------|
|            | N   | %    | N   | %    | N   | %    |
| a,c        | 3   | 6.0% | 3   | 2.4% | 8   | 6.4% |
| a,d        | 0   | 0.0% | 1   | 0.8% | 0   | 0.0% |
| b,c        | 3   | 6.0% | 6   | 4.8% | 5   | 4.0% |
| c,d        | 10  | 20.4%| 5   | 4.0% | 1   | 0.8% |
| a,b,c      | 3   | 6.0% | 29  | 23.0%| 22  | 17.6%|
| a,b,d      | 0   | 0.0% | 1   | 0.8% | 1   | 0.8% |
| a,b,c      | 0   | 0.0% | 0   | 0.0% | 1   | 0.8% |
| a,c,d      | 7   | 14.3%| 10  | 7.9% | 2   | 1.6% |
| b,c,d      | 7   | 14.3%| 6   | 4.8% | 0   | 0.0% |
| a,b,c,d    | 5   | 10.2%| 13  | 10.3%| 5   | 4.0% |

Table 4: Individuals of different education background Awareness on available prostheses (a. Complete Denture, b. Removable Partial Denture, c. Fixed Partial Denture, d. Implants e. Not aware)

| Degree                   | High School | Illiterate | Pre University | Primary |
|--------------------------|-------------|------------|----------------|---------|
| N | % | N | % | N | % | N | % |
|--------------------------|-------------|------------|----------------|---------|
| A | 9 | 9.4% | 13 | 14.3% | 14 | 42.4% | 4 | 16.0% | 10 | 18.2% |
| B | 0 | 0.0% | 1 | 1.1% | 2 | 6.1% | 1 | 4.0% | 2 | 3.6% |
| C | 5 | 5.2% | 3 | 3.3% | 0 | 0.0% | 0 | 0.0% | 1 | 1.8% |
| D | 2 | 2.1% | 0 | 0.0% | 1 | 3.0% | 1 | 4.0% | 1 | 1.8% |
| E | 2 | 2.1% | 24 | 26.4% | 3 | 9.1% | 2 | 8.0% | 7 | 12.7% |
| a,b | 2 | 2.1% | 12 | 13.2% | 5 | 15.2% | 3 | 12.0% | 13 | 23.6% |
| a,c | 4 | 4.1% | 4 | 4.4% | 0 | 0.0% | 2 | 8.0% | 4 | 7.3% |
| a,d | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| b,c | 8 | 8.2% | 2 | 2.2% | 0 | 0.0% | 2 | 8.0% | 2 | 3.6% |
| c,d | 14 | 14.5% | 0 | 0.0% | 1 | 3.0% | 1 | 4.0% | 0 | 0.0% |
| a,b,c | 14 | 14.6% | 19 | 20.9% | 5 | 15.2% | 4 | 16.0% | 12 | 21.8% |
| a,b,d | 2 | 2.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| a,c,d | 12 | 12.5% | 4 | 4.4% | 1 | 3.0% | 1 | 4.0% | 1 | 1.8% |
| b,c,d | 9 | 9.4% | 2 | 2.2% | 0 | 0.0% | 2 | 8.0% | 0 | 0.0% |
| a,b,c | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| a,b,c,d | 13 | 13.5% | 5 | 5.5% | 1 | 3.0% | 2 | 8.0% | 2 | 3.6% |
Table 5: Individuals of different age groups choice of prostheses. (a. Complete Denture, b. Removable Partial Denture, c. Fixed Partial Denture, d. Implants e. No need for replacement)

| Age                  | N   | %  | N   | %  | N   | %  |
|----------------------|-----|----|-----|----|-----|----|
| Young adult(18-35)   |  a  | 0  | 15  | 11.9% | 73  | 58.4% |
|                      |  b  | 1  | 20  | 15.9% | 8   | 6.4%  |
| Middle Aged (36-59)  |  c  | 15 | 50  | 39.7% | 26  | 20.8% |
|                      |  d  | 28 | 26  | 20.6% | 2   | 1.6%  |
| Elderly (Above 60)   |  e  | 4  | 15  | 11.9% | 16  | 12.8% |
|                      |  c,d| 1  | 0   | 0.0%  | 0   | 0.0%  |

Chi Square = 73.2  p= 0.0001

Table 6: Individuals with different education background choice of prostheses. (a. Complete Denture, b. Removable Partial Denture, c. Fixed Partial Denture, d. Implants e. No need for replacement)

| Education       | Illiterate | Primary | High School | Pre University | Degree |
|-----------------|------------|---------|-------------|----------------|--------|
|                 | N   | %  | N   | %  | N   | %  | N   | %  | N   | %  |
| A               | 17  | 51.5% | 26  | 47.3% | 27  | 29.7% | 4   | 16.0% | 14  | 14.6% |
| B               | 6   | 18.2% | 9   | 16.4% | 6   | 6.6%  | 4   | 16.0% | 4   | 4.2%  |
| C               | 6   | 18.2% | 13  | 23.6% | 27  | 29.7% | 8   | 32.0% | 37  | 38.5% |
| D               | 2   | 6.1%  | 1   | 1.8%  | 9   | 9.9%  | 7   | 28.0% | 37  | 38.5% |
| E               | 2   | 6.1%  | 6   | 10.9% | 21  | 23.1% | 2   | 8.0%  | 4   | 4.2%  |
| c,d             | 0   | 0.0%  | 0   | 0.0%  | 1   | 1.1%  | 0   | 0.0%  | 0   | 0.0%  |

Chi Square = 85.6  p= 0.001

Table 7: Choice of prostheses about Gender( a. Complete Denture, b. Removable Partial Denture, c. Fixed Partial Denture, d. Implants e. No need for replacement)

| Gender | female | Percentage | Count | Percentage |
|--------|--------|------------|-------|------------|
| A      | 26     | 20.3%      | 62    | 36.0%      |
| B      | 14     | 10.9%      | 15    | 8.7%       |
| c      | 43     | 33.6%      | 48    | 27.9%      |
| d      | 30     | 23.4%      | 26    | 15.1%      |
| e      | 14     | 10.9%      | 21    | 12.2%      |
| c,d    | 1      | 0.8%       | 0     | 0.0%       |

Chi Square = 10.1  p= 0.039
Table 8: Source of information for the available prosthetic options concerning age (a. Magazines, b. newspapers, c. T.V. and radio, d. Dentist, e. Friends and relatives, f. Other sources)

| Source of information | Young adult (18-35) | Middle Aged (36-59) | Elderly (Above 60) |
|-----------------------|---------------------|---------------------|--------------------|
|                       | N       | %      | N       | %      | N       | %      |
| a                     | 0       | 0.0%   | 6       | 4.8%   | 5       | 4.0%   |
| b                     | 4       | 8.2%   | 8       | 6.3%   | 4       | 3.2%   |
| c                     | 3       | 6.1%   | 10      | 7.9%   | 3       | 2.4%   |
| d                     | 24      | 49.0%  | 37      | 29.4%  | 30      | 24.0%  |
| e                     | 16      | 32.7%  | 60      | 47.6%  | 77      | 61.6%  |
| f                     | 0       | 0.0%   | 0       | 0.0%   | 2       | 1.6%   |
| f-doctor              | 0       | 0.0%   | 2       | 1.6%   | 0       | 0.0%   |
| f-govt hosp           | 1       | 2.0%   | 0       | 0.0%   | 0       | 0.0%   |
| f-internet            | 0       | 0.0%   | 2       | 1.6%   | 1       | 0.8%   |
| f-taken treatment for caries | 0       | 0.0%   | 0       | 0.0%   | 1       | 0.8%   |
| b,c                   | 1       | 2.0%   | 0       | 0.0%   | 0       | 0.0%   |
| d,e                   | 0       | 0.0%   | 1       | 0.8%   | 1       | 0.8%   |
| d,e                   | 0       | 0.0%   | 0       | 0.0%   | 1       | 0.8%   |
| a,e                   | 0       | 0.0%   | 0       | 0.0%   | 1       | 0.8%   |

Chi Square = 21.7  p= 0.017

Table 9: Individuals with different education group - source of information for the available prostheses. a. Magazines, b. newspapers, c. T.V. and radio, d. Dentist, e. Friends and relatives, f. Other sources)

| Source of information | Degree | High School | Illiterate | Pre University | Primary |
|-----------------------|--------|-------------|------------|----------------|---------|
|                       | N   | %    | N   | %    | N   | %    | N   | %    | N   | %    |
| a                     | 6   | 6.2% | 2   | 2.2% | 1   | 3.0% | 0   | 0.0% | 2   | 3.6% |
| b                     | 4   | 4.2% | 4   | 4.4% | 2   | 6.1% | 2   | 8.0% | 4   | 7.3% |
| c                     | 4   | 4.2% | 8   | 8.8% | 0   | 0.0% | 2   | 8.0% | 2   | 3.6% |
| d                     | 44  | 45.8%| 24  | 26.4%| 5   | 15.2%| 9   | 36.0%| 9   | 16.4% |
| e                     | 33  | 34.4%| 49  | 53.8%| 25  | 75.8%| 12  | 48.0%| 34  | 61.8% |
| f                     | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 1   | 1.8% |
| f-doctor              | 1   | 1.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |
| f-govt hosp           | 0   | 0.0% | 1   | 1.1% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |
| f-govt hosp           | 0   | 0.0% | 1   | 1.1% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |
| f-internet            | 1   | 1.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |
| f-taken treatment for caries | 1   | 1.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 2   | 3.6% |
| b,c                   | 0   | 0.0% | 1   | 1.1% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |
| d,e                   | 1   | 1.0% | 1   | 1.1% | 0   | 0.0% | 0   | 0.0% | 1   | 1.8% |
| a&e                   | 1   | 1.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% | 0   | 0.0% |

Chi Square = 37.8  p= 0.009
Table 10: Reasons for not replacing the missing teeth among total participants

| Reason                        | Count | Percentage % |
|-------------------------------|-------|--------------|
| Financial Constraints         | 70    | 23.3%        |
| Inadequate Knowledge          | 40    | 13.3%        |
| Not motivated                 | 38    | 12.7%        |
| Other                         | 25    | 8.2%         |
| Taking Treatment              | 127   | 42.3%        |

Figure 1: Individuals of different education group of choice of prosthesis.

Figure 2: Various types of replacement awareness.

Figure 3: Most preferable method for teeth replacement.

Figure 4: Source of information about prosthetic option.