

# Evaluating Knowledge of North Indian Populace With Respect to the Use of Dental Implants: A Survey Based Research

Navneet Kour<sup>1</sup>, Nadia Irshad<sup>2</sup>, Kousain Sehar<sup>1</sup>, Adeel Ahmed Bajjad<sup>3</sup>,  
Manju Tagra<sup>2</sup>, Hilal Ahmad Hela<sup>4</sup>, Burhan Atlaf Misgar<sup>5</sup>

<sup>1</sup>MDS, Department Of Periodontology and Implantology BRS Dental College and Hospital. Sultanpur Panchkula.

<sup>2</sup>MDS, Dept of Paedodontics and Preventive Dentistry, BRS Dental College and Hospital Sultanpur Panchkula.

<sup>3</sup>MDS, Dept of Orthodontics, Kothiwal Dental College and Research Center Moradabad, Uttar Pardesh.

<sup>4</sup>MDS Student, Dept of Prosthodontic, Crown and Bridge and Implantology, GDC, Srinagar.

<sup>5</sup>MDS, Dept of Paedodontics and Preventive Dentistry Guru Nanak Dev Dental College and Research Institute, Sunam.

Corresponding Author: Kousain Sehar

## ABSTRACT

Dental implantology is quickly turning a claim into fame in the field of dentistry. Inside the most recent five decades, dentistry seems to have recorded its most noteworthy progression in the field of dental implantology. With dental implants, missing teeth are now able to be supplanted with steady, agreeable and regular looking substitutions. In spite of this length of time related with the advancement, the mindfulness and practice of dental implantology wide utilization of dental implants has not just helped the dental calling to rearrange a large number of the troublesome treatment arranging forms yet additionally diminished the inconvenience that is so frequently hard to defeat with customary prostheses. Regardless, with its extended use, clinicians have progressively startling events.

**Objective:** the reason for this examination was to evaluate the degree of information and wellspring of data in regards to the utilization of dental implants as treatment choice contrasted with other ordinary treatment modalities.

**Material and Methodology:** A well-structured online multiple choice-based questionnaire was formulated. The sample size was chosen by simple randomized sampling as 2500 from the general population of North India. The results were tabulated, and descriptive statistics were presented for the scores of questionnaire with a significant value of  $<0.05$ . The  $\chi^2$  test was used

to determine whether there were differences in knowledge and information sources between the groups.

**Results:** Statistically significant differences were found between age, gender and socio-economic status of the population of north India with  $p < 0.05$ .

**Conclusion:** There is as yet a requirement for preceded with training of the overall population in regards to dental implants in a developing nation like India.

**Keywords:** Awareness, Dental Implants, Knowledge, Mini-Implants, Missing Teeth.

## INTRODUCTION

Dental implants have developed as a truly unsurprising treatment for missing teeth. Be that as it may, in creating nations, constrained quantities of individuals choose dental implants. A few components influence the decision of dental implants as a treatment methodology in any nations.<sup>1</sup> Mini dental implants are an option in contrast to customary dental implant yet are commonly utilized in circumstances where the measure of room is less and little size implant can be set both in adults and children.<sup>2</sup> Since the presentation of dental implants haul long clinical examinations, they have affirmed the utilization just as viability of implant treatment of choice in

substitution of missing teeth. Implant treatment is a progressively mainstream treatment of choice with a high achievement rate. As of late, it has become the focal point of the patient's advantage, it is crucial to survey their degree of information concerning dental implants and whether their impression does truly reflect reality of foundation and information to settle on an educated choice between dental implants and removable prosthesis.<sup>3</sup>

Present-day perspectives are unique. The dental clinics have been effective in advancing preventive dentistry and numerous individuals envision retaining their normal teeth for their lifetime. The more established age group speaks to a bigger extent of the populace, and loss of teeth is presently seen as a progressively huge impairment. Albeit most patients can figure out how to acknowledge removable prostheses for tooth substitution, significant numbers, for psychologic or practical reasons, can't adjust such prostheses. In the previous two decades the utilization of osseointegrated inserts has offered elective treatment conceivable outcomes to a portion of these patients. Much work has been done on the clinical parts of tooth substitution utilizing distinctive implant frameworks, however there have been not many considers tending to the mentalities of patients to this other option treatment.<sup>4</sup> A few investigations have been directed on paper based review in various parts of world with respect to awareness of dental implants as a treatment choice. Pommer et al reported 79% of Austrian population expressed desire for implant treatment.<sup>5</sup> A survey from Sweden by Narby et al, reported a histrionic rise in interest of implant treatment to 95% over a period of 10 years.<sup>6</sup> Zimmer et al in 1992 demonstrated a high awareness rate as well as general positive attitude towards oral implant therapy.<sup>7</sup> Consequently, it is basic to direct a study to decide patient's apparent degree of awareness, wellsprings of data, and their acknowledgment on dental implant treatment by breaking down criticism.

## MATERIAL AND METHOD

An electronic questionnaire was directed through online survey (prepared in <http://surveyheart.com/form> surveys) making out of inquiries and evaluated utilizing rate with expectation of assessing dental implant knowledge among 2500 members of the society. The questionnaire was send to the said population through mail-id taken through person to person contact and individual telephone numbers. Survey was set up in English to encourage culmination and to show signs of improvement comprehension of the inquiries by the respondents. Being an online poll no ethical endorsement was required for the investigation. The responses were gathered from 5 April 2020 to 15 June 2020. Poll was pretested and approved among 50 subjects; these subjects were excluded from the investigating study samples. In view of the reaction rate with margin of error at 2%, test size (sample size) was determined to be 2401, but to increase the strength of the study the sample size was increased to 2500. Sample size was calculated based on  $Z^2pq/e^2$ .

$Z=1.95$  for 95% of the confidence interval

$p$  = proportion of the population who had knowledge about dental implants was 50% (0.5)

$q = 1 - p = 0.5$

$e$  = margin of error was at 2% =0.02.

$A=1-0.95$ , required sample size was 2401.

An online poll helped in simplicity of information assortment, recording, and up keep of information for measurable examination. The information got from an online structure was accessible right away and could be effortlessly moved into particular factual programming or spread sheets for additional investigation.

Consideration standards were matured subjects above 20 years of age and much educated about the survey with exclusion subjects being those who didn't have any information and ability of understanding the web questionnaire. The final data was collected and distribution of responses was analyzed as frequencies and percentages.

Chi square test was done to study the association between the demographic and variables and knowledge and awareness about the dental implants.

**DATA ANALYSIS:** The information was investigated utilizing SPSS version 20 Inc., Chicago, IL, USA). The p value was considered as significant when <0.05 (confidence interval of 95%). Elucidating measurements was done to figure reactions for each question. Further examination was performed by utilizing chi square test with two tailed P value.

## RESULTS

Of the 2500 patients who reestablished the completed review 1050 were women and 1434 were men. The

typical mean age of the said masses was 1.88 (SD ±1.31). The greatest number fell in the decade some place in the range of 20 and 31 years of age (62.4%). As showed by Kuppuswamy Scale 2018 (Mohd Saleem)<sup>8</sup> the most outrageous masses of north India was seen as in upper middle class people 56.28% (60.64% professionals, 53% graduate and 44% with 47,266-63,178 income) (Table 1). India being a developing country, near 27.08% of the majority brushed twice and 43.28% use no oral cleanliness aids. In supreme terms, India has 48.04% female populace contrast with 51.96% male population<sup>9</sup> because of which a flat out information among the guys 49.32% had higher information contrasted with females 28.64% (Table 3).

TABLE 1 DEMOGRAPHIC RESPONDENTS		N/%	MEAN±SD
AGE	20-30 YEARS	1560 (62.4)	1.88±1.31
	31-40 YEARS	296 (11.84)	
	41-50 YEARS	191 (7.64)	
	51-60 YEARS	292 (11.68)	
	>60 YEARS	161 (6.44)	
GENDER	FEMALE	1050 (42)	1.58±0.51
	MALE	1434 (57.36)	
	PREFER NOT TO SAY	16 (0.64)	
SOCIO-ECONOMIC STATUS	UPPER	379 (15.16)	2.30±0.92
	UPPER MIDDLE	1407 (56.28)	
	LOWER MIDDLE	306 (12.24)	
	UPPER LOWER	394 (15.76)	
	LOWER	14 (0.56)	

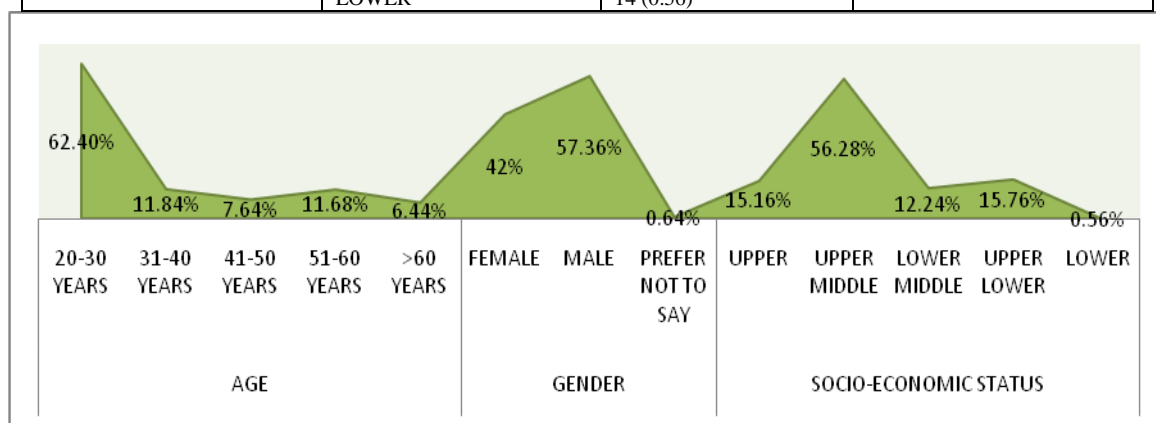


TABLE 2: ORAL HYGIENE HABITS		N (%)	MEAN±SD
FREQUENCY OF BRUSHING	NEVER	71 (2.84)	3.18±0.62
	ALTERNATIVELY	80 (3.24)	
	ONCE A DAY	1671 (66.84)	
	TWICE OR MORE	677 (27.08)	
USE OF ORAL HYGIENE AIDS	WARM SALINE RINSE	299 (11.96)	2.90±1.09
	MOUTH WASH	714 (28.56)	
	MOUTH WASH+FLOSS	405 (16.20)	
	NONE	1082 (43.28)	

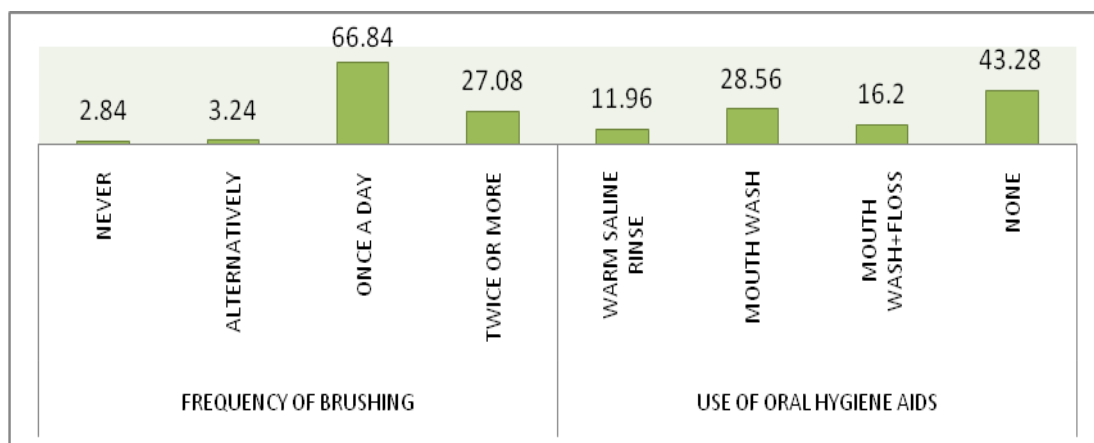


TABLE 3: RESPONDENTS KNOWLEDGE ABOUT DENTAL IMPLANTS

	FEMALE, N (%)	MALE, N (%)	PREFER NOT TO SAY, N (%)	TOTAL, N (%)	SIGNIFICANCE
YES	716 (28.64)	1233 (49.32)	9 (0.36)	1958 (78.32)	X <sup>2</sup> =125.22 P<0.000*
NO	233 (9.32)	117 (4.68)	4 (0.16)	354 (14.16)	
DON'T KNOW	101 (4.04)	84 (3.36)	3 (0.12)	188 (7.52)	

I. *Information as per sexual orientation:* about 44.6% of males knew about the kind of reclamations used to occupy the missing space and 27.36% discovered fixed apparatus increasingly dependable over removable. 42.64% of the males knew about the material of which implant was made and just 26 % of the females knew about the equivalent. Besides just 24% of females knew about the position of inserts in the jaw bone while 44.64% guys were knowledgeable about its situation. As to oral cleanliness for the consideration of the implants contrasted and common teeth, 20.24% (506) of the respondents don't have any thought (don't know) (8.64% were female and 11.36% were female and 0.24% who didn't prefer to disclose their identity), while 71.52% (1788) felt that the implants need more consideration contrasted and characteristic teeth, the huge distinction among the three gatherings were (P< 0.000) as statistically significant. As to strength of implants, 45.64% (1141) of the respondents anticipated that them should last lifelong while 36.96% (923) had no clue about the equivalent with huge distinction of p<0.000 and significant results. 12.36% (309) of the respondents accepted that dental implants have no impacts on the systemic health and a 3.44% of females and 8.72% of males accepted that dental inserts have no

consequences for the systemic wellbeing with the noteworthy distinction among males and females (P <0.000) (Table4). Among 2500 respondents, 48.56% (1214) found dental specialist the wellspring of data about dental implants with most extreme information among males 28% (700). Dental implants were viewed as a significant expense substance by around 48% males and 31.36% female and along these lines didn't thought of it as appropriate for all the patients who look for substitution of their missing teeth. Just 8.2% males and 14.72% females concurred with the equivalent and rest around 41.6% had no information about the same. A portion of the considered populace around 44% males and 26.64% females saw long surgeries as frightful and 49.08% didn't concur with its position in kids. All had a statistically significant differences between male and females with p value of <0.05 (Table 4).

II. *Knowledge according to age and socio-economic status:* : in regards to both age and financial status of the north Indian populace there was factually noteworthy distinction with measurably critical aftereffects of p<0.000 taking all things together. (Table: 5)

**TABLE 4: SUBJECT QUESTIONNAIRE TO EVALUATE THE KNOWLEDGE REGARDING DENTAL IMPLANTS**

	FEMALE, N (%)	MALE, N (%)	PREFER NOT TO SAY, N (%)	TOTAL, N (%)	SIGNIFICANCE
<b>DO YOU HAVE KNOWLEDGE ABOUT THE TYPE OF RESTORATIONS USED TO FILL THE MISSING SPACE?</b>					
YES	650 (26)	1117 (44.68)	10 (0.4)	1777 (71.08)	X <sup>2</sup> = 83.93 P<0.000*
NO	250 (10)	183 (7.32)	1 (0.04)	434 (17.36)	
DON'T KNOW	150 (6)	134 (5.36)	5 (0.2)	289 (11.56)	
<b>ARE NON-REMOVABLE APPLIANCES MORE RELIABLE OVER REMOVABLE REPLACEMENT?</b>					
YES	416 (16.64)	684 (27.36)	11 (0.44)	1111	X <sup>2</sup> =27.68 P<0.000*
NO	384 (15.36)	400 (16)	2 (0.08)	786	
DON'T KNOW	250 (10)	350 (14)	3 (0.12)	603	
<b>WAS YOUR DENTIST THE SOURCE OF INFORMATION ABOUT IMPLANTS?</b>					
YES	500 (20)	700 (28)	14 (0.56)	1214 (48.56)	X <sup>2</sup> =89.91 P<0.000*
NO	416 (16.64)	684 (27.32)	1 (0.04)	1101 (44.04)	
DON'T KNOW	134 (5.4)	50 (2)	1 (0.04)	185 (7.4)	
<b>ARE DENTAL IMPLANT MADE UP OF METAL?</b>					
YES	600 (24)	1066 (42.64)	12 (0.48)	1678 (67.12)	X <sup>2</sup> =102.67 P<0.000*
NO	84 (3.36)	118 (4.72)	2 (0.08)	204 (8.16)	
DON'T KNOW	366 (14.64)	250 (10)	2 (0.08)	618 (24.72)	
<b>ARE DENTAL IMPLANTS PLACED IN JAW BONE?</b>					
YES	600 (24)	1116 (44.64)	13 (0.52)	1729 (69.16)	X <sup>2</sup> =129.87 P<0.000*
NO	84 (3.36)	85 (3.4)	1 (0.04)	170 (6.8)	
DON'T KNOW	366 (14.64)	233 (9.32)	2 (0.08)	601 (24.04)	
<b>DO YOU KNOW THINK DENTAL IMPLANTS LAST LIFE LONG?</b>					
YES	450 (18)	684 (27.36)	7 (0.28)	1141 (45.64)	X <sup>2</sup> =54.97 P<0.000*
NO	133 (5.32)	300 (12)	3 (0.12)	436 (17.44)	
DON'T KNOW	467 (18.68)	450 (18)	6 (0.24)	923 (36.92)	
<b>CAN DENTAL IMPLANT BE PLACED IN CHILDREN IN CASE OF MISSING TEETH?</b>					
YES	200 (8)	334 (13.36)	2 (0.08)	536 (21.44)	X <sup>2</sup> =43.90 P<0.000*
NO	467 (18.68)	750 (30)	10 (0.4)	1227 (49.08)	
DON'T KNOW	383 (15.32)	350 (14)	4 (0.16)	737 (29.40)	
<b>SHOULD DENTAL IMPLANTS BE PLACED AFTER THE ERUPTION OF ALL PERMANENT TEETH IN CHILDREN?</b>					
YES	416 (16.64)	750 (30)	5 (0.2)	1171 (46.84)	X <sup>2</sup> =49.79 <0.000*
NO	218 (8.72)	184 (7.36)	4 (0.16)	406 (16.24)	
DON'T KNOW	416 (16.64)	500 (20)	7 (0.28)	923 (36.92)	
<b>IF YES, WILL IT HAMPER THE GROWTH OF JAWS AND PATH OF ERUPTING TOOTH?</b>					
YES	500 (20)	833 (33.32)	2 (0.08)	1335 (53.4)	X <sup>2</sup> =107.11 P<0.000*
NO	116 (4.64)	35 (1.4)	5 (0.2)	156 (6.24)	
DON'T KNOW	434 (17.36)	566 (22.64)	9 (0.36)	1009 (40.36)	
<b>IS THERE ANY EFFECT OF SYSTEMIC DISEASE ON DENTAL IMPLANTS?</b>					
YES	715 (28.6)	550 (22)	5 (0.2)	1270 (50.8)	X <sup>2</sup> =220.52 P<0.000*
NO	86 (3.44)	218 (8.72)	5 (0.2)	309 (12.36)	
DON'T KNOW	249 (9.96)	666 (26.64)	6 (0.24)	921 (36.84)	
<b>ARE DENTAL IMPLANTS SUITABLE FOR EVERY PATIENT?</b>					
YES	368 (14.72)	205 (8.2)	2 (0.08)	575 (23)	X <sup>2</sup> =30.55 P<0.000*
NO	450 (18)	425 (17)	10 (0.4)	885 (35.4)	
DON'T KNOW	616 (24.64)	420 (16.8)	4 (0.16)	1040 (41.6)	
<b>IS HIGH COST OF TREATMENT THE BIGGEST REASONS OF LOW PREFERENCE OF DENTAL IMPLANT?</b>					
YES	784 (31.36)	1200 (48)	14 (0.56)	1998 (79.92)	X <sup>2</sup> =32.97 P<0.000*
NO	100 (4)	101 (4.04)	1 (0.04)	202 (8.08)	
DON'T KNOW	166 (6.64)	133 (5.32)	1 (0.04)	300 (12)	
<b>DOES THE FEAR OF LONG SURGICAL PROCEDURE IN PLACEMENT LESSEN THE PATIENT CHOICE OF IMPLANTS?</b>					
YES	666 (26.64)	1100 (44)	13 (0.52)	1779 (71.16)	X <sup>2</sup> =54.12 P<0.000*
NO	101 (4.04)	100 (4)	1 (0.04)	202 (8.08)	
DON'T KNOW	283 (11.32)	234 (9.36)	2 (0.08)	519 (20.76)	
<b>DO IMPLANTS REQUIRE SPECIAL CARE AND HYGIENE COMPARED TO NATURAL TEETH?</b>					
YES	700 (28)	1083 (43.32)	5 (0.2)	1788 (71.52)	X <sup>2</sup> =71.33 P<0.000*
NO	134 (5.36)	67 (2.68)	5 (0.2)	206 (8.24)	
DON'T KNOW	216 (8.64)	284 (11.36)	6 (0.24)	506 (20.24)	
<b>DENTAL IMPLANT FAILURE CAN BE DUE TO NEGLIGENCE OF PATIENTS?</b>					
YES	516 (20.64)	984 (39.36)	1 (0.04)	1501 (60.04)	X <sup>2</sup> =125.98 P<0.000*
NO	168 (6.72)	150 (6)	1 (0.04)	319 (12.76)	
DON'T KNOW	366 (14.64)	300 (12)	14 (0.56)	680 (27.2)	
<b>IS A SPECIALIST NEEDED FOR THE PLACEMENT OF IMPLANT?</b>					
YES	766 (30.64)	1233 (49.32)	2 (0.08)	2001 (80.04)	X <sup>2</sup> =142.11 P<0.000*
NO	100 (4)	35 (1.4)	1 (0.04)	136 (5.44)	
DON'T KNOW	184 (7.36)	166 (6.64)	13 (0.52)	363 (14.52)	
<b>DO YOU THINK DENTAL IMPLANTS ARE THE BEST TREATMENT MODALITY FOR ANY MISSING TEETH?</b>					
YES	566 (22.64)	1068 (42.72)	4 (0.16)	1638 (65.52)	X <sup>2</sup> =139.77 P<0.000*
NO	118 (4.72)	133 (5.32)	4 (0.16)	255(10.2)	
DON'T KNOW	366 (14.64)	233 (9.32)	8 (0.32)	607 (24.28)	

**TABLE 5: KNOWLEDGE OF THE STUDY SUBJECTS ACCORDING TO AGE AND SOCIO-ECONOMIC (SE) STATUS**

QUESTION	CHI SQUARE/ P-VALUE (AGE)	CHI SQUARE /P-VALUE (SE)
DO YOU HAVE KNOWLEDGE ABOUT THE TYPE OF RESTORATIONS USED TO FILL THE MISSING SPACE?	X <sup>2</sup> =242.98 P<0.000*	X <sup>2</sup> =257.3 P<0.000*
ARE NON-REMOVABLE APPLIANCES MORE RELIABLE OVER REMOVABLE REPLACEMENT?	X <sup>2</sup> =337.90 P<0.000*	X <sup>2</sup> =228.41 P<0.000*
DO YOU HAVE ANY KNOWLEDGE ABOUT THE DENTAL IMPLANTS AS THE TREATMENT MODE FOR MISSING TEETH?	X <sup>2</sup> =1269.26 P<0.000*	X <sup>2</sup> =259.76 P<0.000*
WAS YOUR DENTIST THE SOURCE OF INFORMATION ABOUT IMPLANTS?	X <sup>2</sup> =140.16 P<0.000*	X <sup>2</sup> =159.32 P<0.000*
ARE DENTAL IMPLANT MADE UP OF METAL?	X <sup>2</sup> =308.39 P<0.000*	X <sup>2</sup> =97.13 P<0.000*
ARE DENTAL IMPLANTS PLACED IN JAW BONE?	X <sup>2</sup> =191.62 P<0.000*	X <sup>2</sup> =247.16 P<0.000*
DO YOU KNOW THINK DENTAL IMPLANTS LAST LIFE LONG?	X <sup>2</sup> =368.75 P<0.000*	X <sup>2</sup> =294.83 P<0.000*
CAN DENTAL IMPLANT BE PLACED IN CHILDREN IN CASE OF MISSING TEETH?	X <sup>2</sup> =181.49 P<0.000*	X <sup>2</sup> =219.04 P<0.000*
SHOULD DENTAL IMPLANTS BE PLACED AFTER THE ERUPTION OF ALL PERMANENT TEETH IN CHILDREN?	X <sup>2</sup> =221.85 P<0.000*	X <sup>2</sup> =146.83 P<0.000*
IF YES, WILL IT HAMPER THE GROWTH OF JAWS AND PATH OF ERUPTING TOOTH?	X <sup>2</sup> =76.76 P<0.000*	X <sup>2</sup> =237.30 P<0.000*
IS THERE ANY EFFECT OF SYSTEMIC DISEASE ON DENTAL IMPLANTS?	X <sup>2</sup> =846.10 P<0.000*	X <sup>2</sup> =305.58 P<0.000*
ARE DENTAL IMPLANTS SUITABLE FOR EVERY PATIENT?	X <sup>2</sup> =228.35 P<0.000*	X <sup>2</sup> =400.19 P<0.000*
IS HIGH COST OF TREATMENT THE BIGGEST REASONS OF LOW PREFERENCE OF DENTAL IMPLANT?	X <sup>2</sup> =160.79 P<0.000*	X <sup>2</sup> =145.96 P<0.000*
DOES THE FEAR OF LONG SURGICAL PROCEDURE IN PLACEMENT LESSEN THE PATIENT CHOICE OF IMPLANTS?	X <sup>2</sup> =304.64 P<0.000*	X <sup>2</sup> =100.73 P<0.000*
DO IMPLANTS REQUIRE SPECIAL CARE AND HYGIENE COMPARED TO NATURAL TEETH?	X <sup>2</sup> =160.54 P<0.000*	X <sup>2</sup> =178.82 P<0.000*
DENTAL IMPLANT FAILURE CAN BE DUE TO NEGLIGENCE OF PATIENTS?	X <sup>2</sup> =227.20 P<0.000*	X <sup>2</sup> =232.35 P<0.000*
IS A SPECIALIST NEEDED FOR THE PLACEMENT OF IMPLANT?	X <sup>2</sup> =373.98 P<0.000*	X <sup>2</sup> =164.47 P<0.000*
DO YOU THINK DENTAL IMPLANTS ARE THE BEST TREATMENT MODALITY FOR ANY MISSING TEETH?	X <sup>2</sup> =192.74 P<0.000*	X <sup>2</sup> =119.73 P<0.000*

\*statistically significant value (p<0.05)

## DISCUSSION

The positive results of dental implant have been affirmed by different examinations directed since the time dental implant was presented. In this way, it is critical to know the information and consciousness of patients at the utilization of dental implants as a decision for treatment of extracted teeth. Dental implants have been in the spotlight in the field of dentistry longer than 10 years and a half at this point. With improving long haul anticipation of implants supported prosthesis greater part of patients are requesting dental implants as the preminent decision for restoration of missing teeth.

Dental specialists are the primary source of data on dental inserts 48.56%. This is in concurrence with Pommer et al, expressed dental specialists as the principle wellspring of data.<sup>5</sup> This finding is in opposition to that revealed by an

investigation done in the USA, expressing media as the principle source.<sup>8</sup>

The current investigation gives some data about dental patients' mindfulness, desires, and information level about dental implants and signals the populace's necessity for progressively right data as an alternative in supplanting missing teeth with dental implants in north India. This little, randomized study population expanded their insight about dental inserts with their review.

In spite of the fact that Zimmer et al<sup>7</sup>, Berge<sup>10</sup>, revealed the degree of awareness as 77.0%, 70.1%, separately, in the current investigation the awareness rate was as high as 78.32% so just 21.68% (no, don't know) of the respondents had never found out about dental implants. These outcomes were higher than in different investigations. This finding may be because of consistent overall steady development of

dental implant deals or their capacity to get data more effectively than in past decades or due the respondent population to be higher in the age group of 20-31 years (62.4%).

Tapper et al.<sup>11</sup>, Faramarzi et al.<sup>12</sup>, and Alanazi et al.<sup>13</sup> detailed that a large portion of patients accepted that utilizing of implants needs more consideration (46%, 33%, and 66%, separately), while the current investigation demonstrated that 20.34% of the respondents don't have any thought, while 71.52% had idea that the inserts need more consideration contrasted and normal teeth. As to mean of sturdiness of dental implants, Tapper et al.<sup>11</sup> demonstrated 54% of patient accepted expected mean toughness of implants is 10–20 years. Esfahani and Moosaali<sup>14</sup> and Faramarzi et al.<sup>12</sup> announced that 37.7% and 70.7%, individually, of the subjects had no clue about the strength of dental implants treatment, and furthermore in the current examination, 36.91% of the respondents had no clue about durability of dental implants. This implies patients had inadequate data about dental implants.

The inserts appeared to impede development of the alveolar process and changed the emission way of tooth germs found distal to the embedded inserts. The outcomes illustrated that implant set in the jaws of developing pigs didn't act like ordinarily ejecting teeth since the installations neglected to move along with the contiguous teeth and carried on progressively like ankylosed teeth.<sup>15</sup> This was in agreement to our investigation 49.08% accepted that dental implants ought not be set in children and moreover, 53.4% knew about inserts hampering the way of ejection and influencing the development of jaws.

Practically 79.92% members picked significant expense as the single greatest hindrance of implant treatment followed 71.16% by intrusive nature of the medical procedure and an extensive stretch for treatment consummation. These discoveries are like Tepper et al past examinations.<sup>11</sup> The cost of most rumored implants is high

and this cost must be borne by the patients. More patients will choose implants based treatment alternatives once their medical coverage arrangements incorporate inclusion for such medicines. Thus, the government should execute plans to give less expensive dental implants based treatment alternatives to patients with lower financial status in a developing country like India.

A portion of the investigations identified with implants awareness in India had been directed which are as per the following:

Shivani Kohil (2015) led to evaluate quiet mindfulness and demeanor towards dental implants among Malaysian populace utilizing clear as crystal overview and it was inferred that 56% of Malaysian populace knew about dental embed as an option for supplanting missing teeth.<sup>16</sup> Pramita (2016) did the investigation to decide the status of information, disposition and mindfulness about dental inserts in a tertiary consideration medical clinic utilizing a standard survey among 192 patients. This examination inferred that there are constrained information and mindfulness about dental inserts in eastern Nepal.<sup>17</sup> Al-Musawi A (2017) directed an examination to evaluate open mindfulness and impression of dental embeds in haphazardly chose test in Kuwait. An organized poll was utilized in 527 grown-up members in cross – sectional overviews. This investigation uncovered a significant level of mindfulness among open yet absence of information on procedural perspective.<sup>18</sup>

The discoveries of this examination plainly call attention to an elevated level of mindfulness among public. Be that as it may, countless members were keen on acquiring extra data on implants based treatment choices from their dental specialist. Significant expense long treatment period and requirement for medical procedure were the fundamental hindrances of implants treatment as indicated by patients. As significant expenses were the principle reasons not to

pick dental implant treatment, it is essential to feature the patients that personal satisfaction dominates significant expense of inserts.

## CONCLUSION

This examination unmistakably showed that high number of subjects among the populace knows about dental inserts as an alternative to supplant missing teeth. Those mindful of implants were insufficiently educated about the area of implants situation, their support, and their strength. Members with a superior financial status, for example, high education and family pay were bound to know about implants when contrasted with their partners with a lower financial status. Albeit a larger part of members got data on inserts from their dental specialists, they despite everything needed extra data. Accordingly, it is significant for dental experts to instruct their patients on the benefits of implant based treatment choices furthermore, improve their comprehension of embed treatment at the hour of the discussion.

## DECELERATION

**Abbreviations:** MDS: master in dental surgery

Dept: department

### Ethics declarations

Ethics approval and consent to participate

This article contains data obtained from an online survey distributed through mails, telephonic contacts and social media during the lockdown phase in India due to corona pandemic. Hence, no ethical approval was required. As a web based study no consent was required before the participation.

### Consent for publication

Informed consent was obtained from all individual participants included in the study.

Availability of supporting data: is given within the article.

### Competing interests

All the authors declare that they have no competing interests.

Funding: nil

## ACKNOWLEDGEMENTS

The authors would like to thank the study participants for their kind participation in the study and the authors would like to thank each other for the help and mutual cooperation for the study.

## REFERENCES

1. Mgbeokwere U, Okoye L, and Ekwueme O. A survey of the knowledge of dental implants as a choice in treatment of edentulous jaws among health workers in Government Dental Clinics in Enugu. *Annals of medical and health sciences research*. 2011; 1(1):91-6.
2. Dixit S, Srivastava B, Gupta N, Gambhir N, and Singh R. Mini-Implants in Pediatric Dentistry.
3. Harem F, Yadalam U, Narayan Sj, Apoorva M, and Sheetal. Awareness and knowledge among the general population about dental implants as an option in replacing missing tooth—a questionnaire survey (in Bangalore). *Int j sci.res*.2018; VII (I).
4. Grogono AL, Lancaster DM, and Finger IM. Dental implants: a survey of patients' attitudes. *Journal of Prosthetic Dentistry*. 1989 Nov 1; 62(5):573-6.
5. Pommer B, Zechner W, Watzak G, Ulm C, Watzek G, Tepper G. Progress and trends in patients' mindset on dental implants. I: Level of information, sources of information and need for patient information. *Clin Oral Implants Res* 2011; 22:223-9.
6. Narby B, Kronstrom M, Soderfelt B, Palmqvist S. Changes in attitudes toward desire for implant treatment: A longitudinal study of a middle-aged and older Sweden population. *Int J Prosthodont*. 2008;21:481–5
7. Zimmer CM, Zimmer WM, Williams J, Liesener J. Public awareness and acceptance of dental implants. *Int J Oral Maxillofac Implants*. 1992;7:228–32.
8. Saleem SM. Modified kuppuswamy scale updated for 2018. *PIJR* 2018; 7(3); 217:18.
9. Ministry of statistics and programme implementation. 18 march 2020.
10. Berge TI. Public awareness, information source and evaluation of oral implant treatment in Norway. *Clin Oral Implants Res*. 2000;1:401–7.
11. Tapper G, Haas R, and Mailath G, “Representative marketing oriented study on implants in the Austrian population. Level



- of information, source of information and need for patient information,” *Clinical Oral Implants Research*, vol. 14, no. 5, pp. 621–633, 2003.
12. M. Faramarzi, A. Shirmohammadi, M. T. Chisazi, A. Kashefimehr, E. Farhoodi, and A. Omrani, “Patient’s knowledge regarding dental implants in Tabriz, Iran,” *DJH*, vol. 4, no. 1, pp. 43–48, 2012.
  13. S. A. Alanazi, K. T. A. Alduaiji, A. S. Al-Enazi, M. Y. Assiri, K. S. Almagnam, and A. K. Alnwaihel, “Knowledge, attitude, and awareness regarding dental implants among young patients visiting Al-Farabi Hospital,” *Oral Health and Dental Management*, vol. 16, p. 5, 2017.
  14. O. F. Esfahani and F. Moosaali, “Awareness and knowledge of patients toward dental implants as an option in replacing missing teeth: a survey in Kerman, Iran,” *Journal of Advanced Periodontology and Implant Dentistry*, vol. 8, no. 2, pp. 43–48, 2016.
  15. Brahim JS. Dental implants in children. *Oral and Maxillofacial Surgery Clinics*. 2005 Nov 1;17(4):375-81.
  16. Shivani Kohil, Shekhar Bhatia, Arvinder Kaur- Patient awareness and attitude towards dental implants. *Indian journal of dentistry* 2015 Oct-Dec;6(4):167-171
  17. Pramita Suwal, Bishal babu, Bidhan, Prakash kumar Raj kumar singh - Knowledge, attitude and awareness regarding dental implants among patients visiting a university hospital and its teaching districts. *Journal of dental implants* 2016; 6(2):57-61
  18. Al-musawi, Sharma P, Dasti M- Public awareness and perception of dental implants in randomly selected sample in Kuwait. *Journal of medical implants and surgery* 2017 :2(2):1000116

How to cite this article: Kour N, Irshad N, Sehar K et.al. Evaluating knowledge of north Indian populace with respect to the use of dental implants: a survey based research. *International Journal of Science & Healthcare Research*. 2020; 5(3): 242-250.

\*\*\*\*\*