

EFFECT OF SOCIOECONOMIC STATUS ON EXPECTATIONS AND FELT NEEDS AMONG COMPLETELY EDENTULOUS PATIENTS REGARDING CONVENTIONAL COMPLETE DENTURES

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ABSTRACT:

Background: In past studies have been conducted related to variables affecting success of the treatment of edentulous Patients. Effect of socioeconomic status had been also associated with the variables. The purpose of this study was to determine the effect of socioeconomic status of completely edentulous patients on their expectation from the treatment and their felt need through a Questionnaire based survey.

Material and Method: The Present study was conducted in region of Delhi. 1500 completely edentulous patients with age group of 63-74 yrs who report to Dental OPD first time are taken for the study from the period of January 2015 till January 2016. The sample questionnaire to determine felt needs, and expectation of patient from conventional complete denture therapy was formulated. Results were statistically evaluated.

Results: Out of 1500 patients, percentage of Upper, Upper middle, Lower middle and Upper Lower and Lower class who had higher expectations from treatment was greatest. Percentage of Patients with No expectation from treatment were highest in Upper Lower and Lower classes. Total percentage of all patients who wanted Replacement of teeth was highest for Combined reasons followed by Appearance, Speech, Function and Comfort.

Conclusion: Socioeconomic status of patients have definite effect on their Needs and Expectations from the treatment.

Key Words: Socioeconomic status, Expectation, Question based survey

INTRODUCTION:

There is growing population of elderly patients in India. Although the elderly population in India is 7.4% of total population, but this is expected to increase^[8,25,29] up to 19% by the year 2025. Delhi is capital of India and has population of 18 million people (Delhi Census-2011).

Perception and attitude of patients towards complete denture treatment

is changing in present scenario. Now level of expectations of the patients has increased from the past.^[7] Their mental make up and socio-economic background plays vital role in this. Their socioeconomic background^[30-32] is one of the major criteria in determining choice of treatment and level of expectation. There is a difference in decision making abilities of upper and lower socioeconomic status patients

[17,19,21,22,30-32.]. Moreover, sex of the patient also plays the vital role. Female patients have certain preferences for the treatments that male patients may not have and vice-versa. Dentist should also have idea regarding needs as felt by completely edentulous patients from the complete denture therapy.

The purpose of this study was to assess the effect of socioeconomic status of patients with their expectations and Felt needs from the complete denture therapy through the Questionnaire based survey [1,13]. This will help dentist to formulate treatment planning fulfilling needs and expectation of the patient in a better way.

MATERIALS AND METHODS:

The Present study was conducted in region of Delhi. The nature of study was Observational and Cross-sectional.

1500 completely edentulous patients [24] with age group of 63-74 yrs who report to Dental OPDs of Multispeciality Dental Centres for the first time are taken for the study from the period of January 2015 till January 2016. Patients were distributed in following age intervals:

Age (years)
63-65
66 - 68
69 - 71
72-74

The Data collection tool was a Questionnaire. The sample questionnaire to determine Felt needs and expectation of patient was formulated. The questionnaire was tested on a few patients to test validity and reliability of the questions through pilot study.

The examiners for the patients [one for each centre] were trained for asking questions and recording the observations to minimize error in filling questionnaire which may arise due to Inter-examiner variability. Confidence level of the study was set at 95%. Margin of error of the study was 5% with response distribution of 50%.

The Questionnaire had namely 3 parts:

1. Socioeconomic background and sex based on Kuppuswamy classification of socioeconomic status scale revised for 2015 using real time update .
2. Question regarding expectations of the patient from the therapy. Based on which they will be divided in to :
 - High expectation
 - Medium expectation
 - Low expectation
 - No expectation.
3. Questions regarding need for the therapy. Based on which they will be divided in to following categories:
 - a. Mastication
 - b. Function

c. Comfort

d. Speech

e. Combination

Alongwith Questionnaire, Informed consent form was prepared.

SPSS software 2016[version 22] was used to analyse the result.

Descriptive Analysis for the study was done using following methods:

1. Frequency Distribution Tables
2. % Distribution Table
3. Mean Standard Deviation Tables
4. Bar Diagrams
5. Pie Charts

Inferential analysis was done using following:

1. KruskWallis test for Intergroup comparisons
- 2 Man-Whitney test for Intragroup comparisons

Statistical Evaluation of the Study was performed by Biomedical Statistician. Results of the study were statistically analysed.

RESULT:

Total number of 1500 patients in age group of 63 – 74 years were considered for the Study. Percentage Frequency distribution by the age of the Patients. Maximum 33.2% of Patients(498) were between 63-65 Years. Minimum of 16.2%

(243) Patients were between 69-71 years. 58% (870) of patients for the study were males and 42% (630) of patients were females.[Table 1 and Figure 1]

Maximum %[Number] of Males was in Upper class 55%[478] and minimum was in Lower class 3%[27]. %[Number] of Females in was also maximum in Upper class 47.9%[302] and minimum in Lower class 2.8%[18]. [Table 2]

Percentage [Number] of Upper class patients was highest 52%[780] and Lowest in Lower class and 3%[45]. [Table 3]

Total percentge of Patients having High expectation from the treatment was greatest followed by Medium ,Low and No expectation from treatment. Total % [Number] of Patients having High expectation from treatment was greatest in Upper Class 58%[452] and Lowest in Lower class 42%[19]. Total % [Number] of Patients having Medium expectation was highest in Lower class 27%[12] and Lowest in Upper class 21%[164]. Total % [Number] of Patients having Low expectation from treatment was greatest in Lower Class 20%[9] and Lowest in Upper class 12%[94]. Total % [Number] of Patients having No expectation from treatment was greatest in Upper Lower Class 15%[20] and Lowest in Upper 9%[70] and Upper middle class 9%[27]. [Table 4 and Figure 2]

Maximum number of Patients opt for Complete denture therapy because of

Combined reasons[56%] and least go for Function[7.6%] in all classes.% of Patients going for Appearance was maximum in Upper class [20%] and least in Lower middle class [13%].% of Patients going for Speech was maximum in Upper Lower class [15%] and least in Upper class [8%].% of Patients going for Comfort was maximum in Lower middle class [14%] and least in Upper class [7%]. % of Patients going for Function was maximum in Lower class [21%] and least in Upper [5%]. [Table 5 and Figure 3]

DISCUSSION:

There has been a few studies regarding Awareness [11--12,16], Expectation and Satisfaction [2-3,5,7,9,13-15,19,28] Needs [10,16-17] for the Patients for Complete dentures. But a study based on Indian Population that comprises all abovementioned factors and has large sample size to predict outcome with substantial significance was lacking. Delhi was chosen for place of study as it is the capital of India and sample size of 1500 patient with age group of 63-74 was chosen seeing 18 million Population in Delhi and out of which 19% is edentulous. [8, 10,24-25]

Socioeconomic status of patients was taken in to consideration for classifying patients for the study as it had great impact on all variables used for the study [27,30-32] [Expectation and Need]. A sample Questionnaire was used for study¹. Questions based on expectation and Needs of the patients were asked. Most common questions that were used in

earlier studies were also taken in to consideration.

Delhi is metropolitan city mainly comprising of Urban and educated class population. Upper middle, Lower middle and Upper lower class male and female patients % were in decreasing order respectively. It is expected as patients were of Higher income group in Delhi. Only lesser % [3% of males and 2.8% of females] were of lower class who sought for the treatment.

52% of Patients were of Upper class. It is expected as study was conducted in Cosmopolitan city. Only 3% of patients were of lower class. % of Upper middle, Lower middle and Upper Lower were 20%, 16% and 9% respectively. This is in accordance with expected trend of population in Delhi.

Larger % of patients in all socioeconomic groups had Higher expectation from treatment and least % of patients in all socioeconomic groups has no expectation from treatment. This is in correlation with earlier studies [12,14,15] and also is expected because Delhi is cosmopolitan city. Upper class patients are more concerned with treatment outcome and have high expectation and willing to pay more for this. Even Lower class patients in Metropolitan cities demand best treatment results due to increased peer pressure and increased exposure to materialistic aspects of life. Results have higher significance and are decisive in nature. We can predict that Patients of any socioeconomic class

in Metropolitan city has higher expectation from the treatment.

% of Patients with Low and No expectation from treatment were highest in Upper Lower and Lower classes. These are the classes with minimal income group. This can be related to Psychosocial attitude of these groups. This is in contrast to Upper and Upper middle classes positive psychosocial attitude where patients with Low and No expectation were least. The results are highly significant between Upper and Upper Lower classes. Results were also significant in Lower middle and lower classes. This is because of larger number of patients taken for study because of which results were significant and decisive in nature.

Maximum % of population in all socioeconomic group wanted complete denture treatment because of combined factors of Appearance, speech, comfort and function. This is in co-relation with earlier studies by Suresh S and Swati S.^[15] This is expected as patients go for complete denture therapy because of more than one reasons. After combined reasons, appearance is second most important reason for the treatment. This is expected of Upper class [20%], Upper middle [18%] but even lower middle [13%] and Lower [15%] class has same reason for treatment. This might be explained because of increase awareness of materialistic things and peer pressure of looking good in society especially in cosmopolitan cities like Delhi. Esthetic becomes motivating factor

for the patients to seek treatment. Moreover % of Lower class population studied was less to be representative of the group. Function becomes other motivating factor for Lower and Upper Lower class [21% and 15% respectively]. This can be explained by the fact Lower and Upper Lower class dwell in areas or work in profiles where Function mattered the most. They were more of worker class group. Speech, comfort are secondary factors to motivating factors for seeking treatment.

Surprisingly only 7% of upper class and 9% of upper middle class opted dentures for comfort. It was trend breaker and no specific reason can be given for this. Total 9.2% of patients opted for dentures for comfort.

CONCLUSION:

1500 completely edentulous patients were evaluated through questionnaire for their expectation and Felt needs regarding complete dentures.

Majority of patients who seek complete denture therapy were from Upper class in metropolitan city like Delhi. Larger % of patients in all socioeconomic groups had Higher expectation from treatment and least % of patients in all socioeconomic groups has no expectation from treatment. % of Patients with Low and No expectation from treatment were highest in Upper Lower and Lower classes.

Larger % of all socioeconomic classes patients seek treatment because of

combined reasons of Appearance, Speech, Comfort and Function. After Combined reason, Esthetic becomes motivating factor for seeking Treatment. Function also becomes motivating factor for Lower and Upper Lower classes. The Dentist should believe that majority of patients [be it of any socioeconomic group] have higher expectation from treatment. Therefore the dentist should communicate with the patients in such a manner so that they have realistic expectation from treatment and do not get disappointed from outcome of treatment.

Dentist should fabricate complete denture considering that it should fulfill

all aspects of outcome of treatment like Appearance, Speech, Comfort and Function as maximum number of patients in all classes go for combined reasons for seeking complete denture therapy. Dentist should also not undermine the importance of Appearance and function especially in Lower middle and Lower classes.

Thus, it is concluded that socioeconomic status of patients have definite effect on their Needs and Expectations from the treatment.

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TABLES:

Table 1 : % Frequency Distribution by Age of Patients

Age (years)	Frequency	Frequency (%)	Mean	SD	SEM
63-65	498	33.2	68.74	3.525	.091
66 - 68	353	23.5			
69 - 71	243	16.2			
72-74	406	27.1			
Total	1500	100.0			

Values are expressed in numbers, Mean, SD[Standard Deviation] and SEM[Standard error of Mean]

Table 2 : Sex Distribution of Patients based on Socioeconomic status

Sex	Upper		Upper middle		Lower middle		Upper lower		Lower	Total %		
	No.	%	No.	%	No.	%	No.	%				
M	478	55	148	17	130	15	87	10	27	3	870	58
F	302	47.9	152	24.2	110	17.5	48	7.6	18	2.8	630	42

[$\chi^2 = 16.522$, $df = 4$, $p = 0.0024$, So, $p < 0.05$ Significant].

Values are expressed in numbers, χ^2 [Standard deviation], df [Degree in freedom] and p .

Table 3: Distribution of patients based on their Socioeconomic status

Socioeconomic class	Number of patients	Percentage of patients
Upper	780	52
Upper middle	300	20
Lower middle	240	16
Upper Lower	135	9
Lower	45	3

Table 4: Distribution of Patients based on their response on Expectation from the treatment

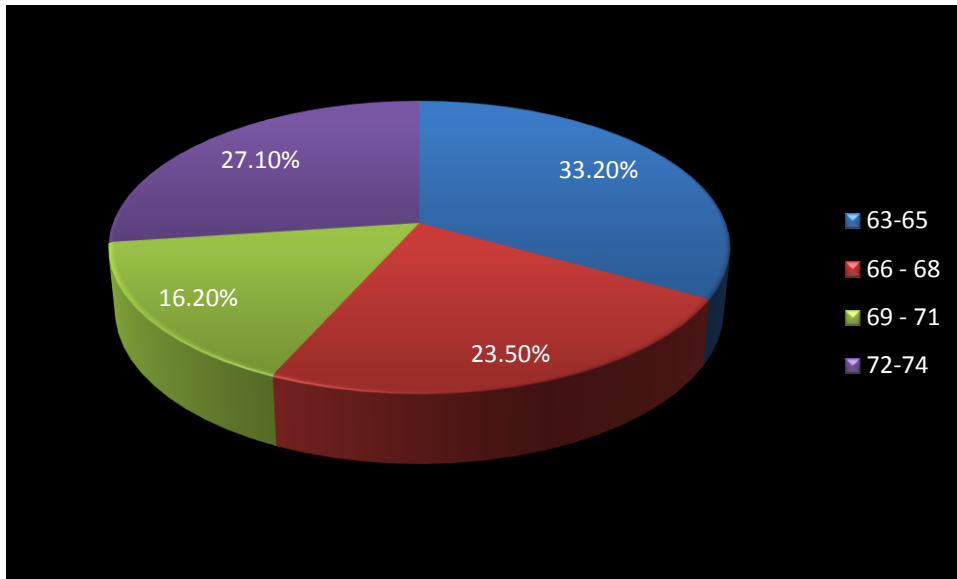
S.no	Socio-economic group	N	High Expectation	Medium expectation	Low Expectation	No Expectation	Mean Rank	Chi – Square Variate	df	P value
1.	UPPER	780	452	164	94	70	715.90	17.213	4	.002
2	UPPER MIDDLE	300	156	72	45	27	758.22			
3	LOWER MIDDLE	240	115	62	43	20	786.64			
4	UPPER LOWER	135	59	32	24	20	839.95			
5	LOWER	45	19	12	9	5	837.68			

Table 5 : Distribution of Patients based on their response on Reasons for replacement of Teeth

S.no	Socio-economic Group	N	Appearance	Speech	Comfort	Function	Combined	Mean Rank	Chi – Square Variate	df	P value
1.	UPPER	780	156	62	55	39	468	765.53	3.615	4	.361
2	UPPER MIDDLE	300	56	28	27	24	165	741.85			
3	LOWER MIDDLE	240	31	29	34	22	124	739.25			
4	UPPER LOWER	135	14	21	16	19	65	728.12			
5	LOWER	45	7	5	6	9	18	674.86			

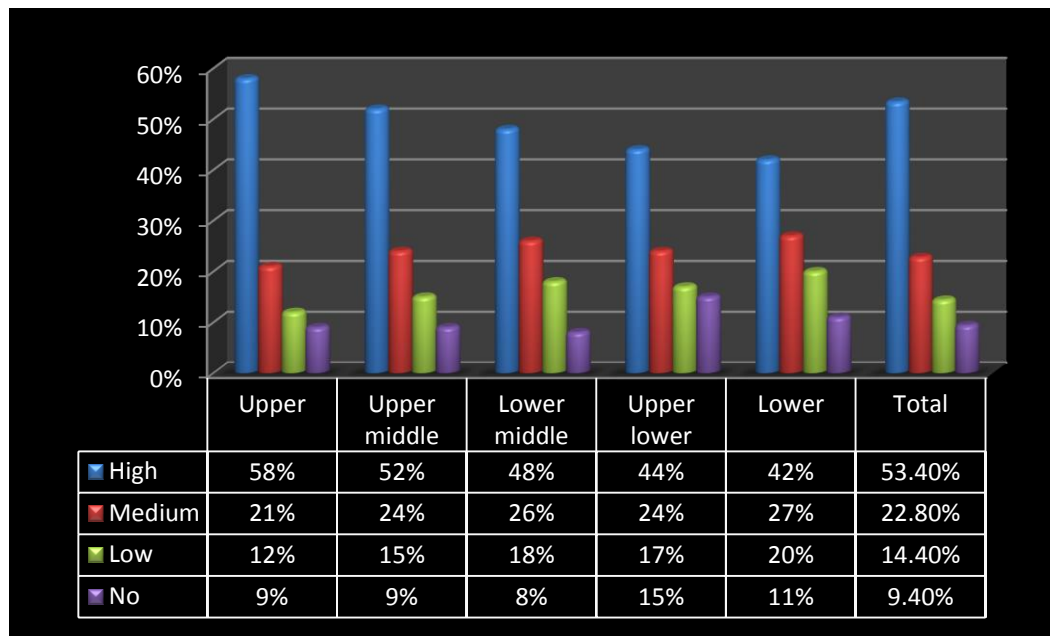
FIGURES:

Figure 1:



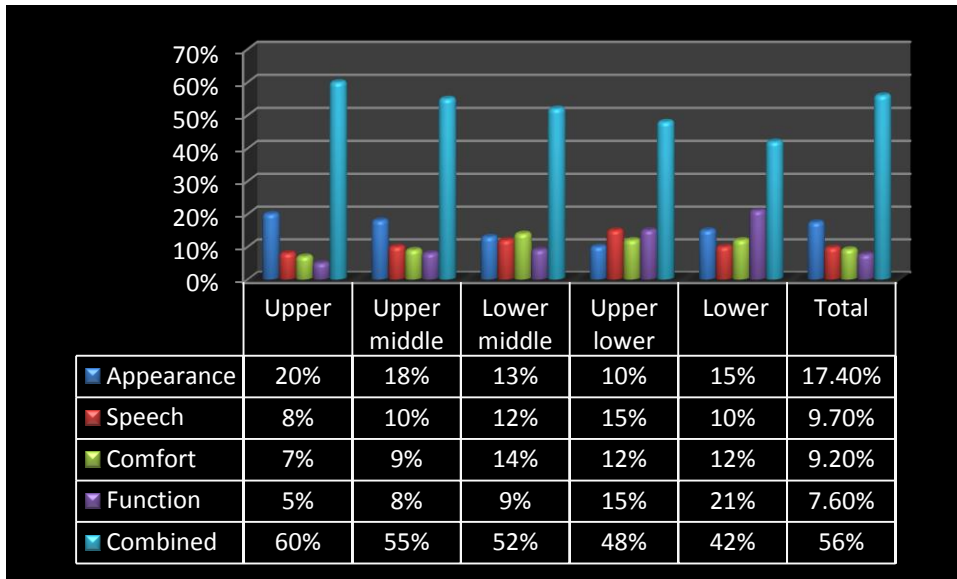
% Frequency distribution by the age of the Patients

Figure 2



% distribution of Patients based on their response on Expectation from the treatment.

Figure 3.



% Distribution of Patients based on their response on Reasons for replacement of Teeth