

A Clinical Survey to Assess the Knowledge, Attitude and Expectations of Patients' Before & After Complete Denture Treatment

Abstract

AIM: Survey to assess the Knowledge, Attitude and Expectations of patients' Before & After Complete Denture Treatment. **METHOD:** An epidemiological study to determine patients' knowledge, attitude and expectations was conducted. This Pilot study was conducted on 120 Edentulous Patients of which 68 males and 52 females who reported to Department of Prosthodontics, Navodaya Dental College, Raichur, Karnataka, India over a period of 6 weeks. The patient inclusion criteria being Normal Edentulous patients who desired complete denture for the first time. **RESULTS:** After the assessment of the questionnaire before treatment, we can note that 63% (n=76) patients faced problems in chewing, 56.6% (n=68) were not happy with the way they look, 70% (n=84) patients had problems in speech, 60% (n=72) had change in their taste sensation due to loss of teeth, 67% (n=80) were not satisfied with the diet they are having and 50% (n=60) felt embarrassed because of no teeth. Only 30% (n=36) were self-motivated for Complete denture treatment, 46.7% (n=56) got to know about Complete denture treatment through their Friends/Relatives and 26.7% (n=32) through Media/ Advertisement/ Others. Most of the self-motivated patients were of younger age group and knew the importance of replacing teeth. This also signifies that the knowledge regarding the Prosthetic rehabilitation in this area is less and needs to be further emphasized on for the betterment of the population.

Key Words

Denture treatment; aesthetic; edentulous patient

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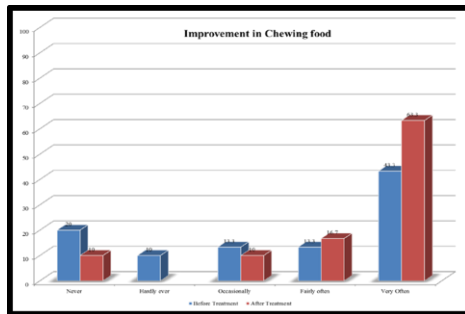
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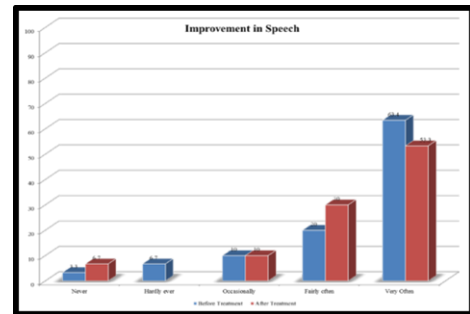
INTRODUCTION

Edentulous predicament represents a compromise in functional and aesthetic sequel disturbing integrity of the total masticatory system. Perception of the edentulous state may range from feeling of inconvenience to the feeling of severe handicap, because many individuals regard tooth loss is equivalent to loss of a body part.^[1] Prosthodontic success appears to be governed by the concerted efforts of patient and the dental team working in harmony towards a common goal. This hopefully results in the provision of good-looking, well

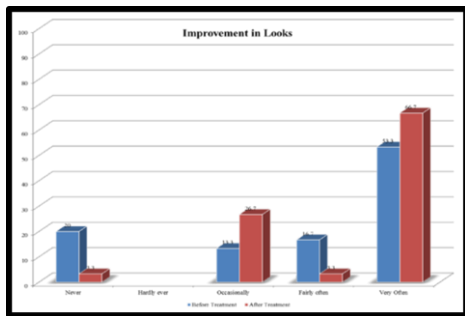
supported, adequately retained and stable prostheses, with which the patient is able to function comfortably. It is noted that missing teeth are replaced primarily for function, social and esthetic reasons and that treatment decisions cannot be based solely on professional factors. The increase in the prosthetic restorations of elderly individuals due to longer life expectancy means that the demand for prosthodontic treatment will increase in the next few decades due to a higher frequency of edentulism, even in countries with a high standard of dental health care.^[2]



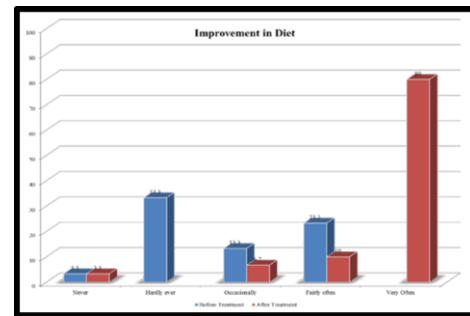
Graph 1.1



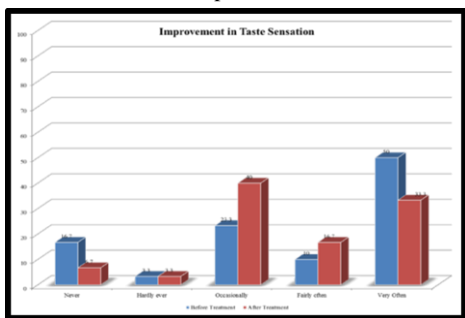
Graph 1.2



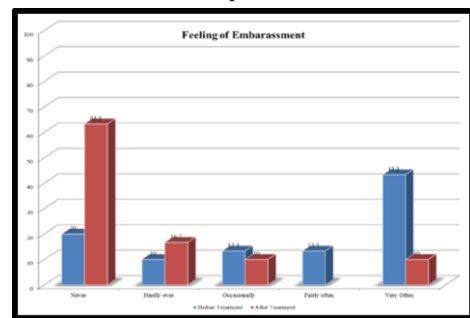
Graph 1.3



Graph 1.4



Graph 1.5



Graph 1.6

As people increasingly wish their natural teeth function to continue rather than to use dentures, a degree of prejudice against dentures appears to exist. This appears to have been confirmed by a study in 1998, which found that over 60% of people who relied only on natural teeth stated that they would be very upset if their oral function had to rely on complete dentures.^[3] It is important for dentists to be aware of this situation, as it can have a significant impact on how patients respond to receiving complete dentures when the time comes. Indian prevalence of edentulousness varies from 60% to 69% of 25 years and above age groups.^[4] However the prevalence of edentulousness in elderly was found to be in range of 70.3% to 91.2%. The full edentulousness among this group was 14.2 to 35.4%.^[5] With the mass of information that has accumulated over the last 30 years, it has become possible to predict future trends with reasonable confidence. If the current trends continue, it is calculated that by 2018 only 5% of

the adult population will be edentate.^[6] The need for complete denture treatment varies from patient to patient depending on their age, sex, occupation, socioeconomic background and literacy. So it is essential to assess the Knowledge, Attitude and Expectations of patients' before starting treatment as the attitude and expectations may influence treatment planning. Few patients who have 'Unrealistic expectations' should be managed properly by proper education before starting the treatment. Few individuals have difficulty in verbalizing their problems and use of questionnaire assists patients to reveal their problems. Questionnaire before treatment not only assists the edentulous subject to reveal their problems but also to derive treatment planning addressing awareness of need and expectations of complete denture patients. It is important for dentists to be aware of the situation, as it can have a significant impact on how patients respond to receiving complete dentures. Therefore a questionnaire study was

planned to evaluate the patients' knowledge, attitude and expectations before and after complete denture treatment.

AIMS AND OBJECTIVES

- To gather data using questionnaire about patients' knowledge, attitude and expectations before and after the complete dentures treatment.
- To evaluate their change in attitude and expectations after complete denture treatment.

MATERIALS AND METHODS

An epidemiological study to determine patients' knowledge, attitude and expectations was conducted. This Pilot study was conducted on 120 Edentulous Patients of which 68 males and 52 females who reported to Department of Prosthodontics, Navodaya Dental College, Raichur, Karnataka, India over a period of 6 weeks. The patient inclusion criteria being Normal Edentulous patients who desired complete denture for the first time. The patients were informed about the nature of the study, only those patients who were willing to participate & gave their consent were considered for the study.

Instruments

A questionnaire which sought patients' knowledge, attitude and expectation of complete denture treatment was developed. The questionnaire was divided into two main sections; Before treatment and After treatment. In the Before treatment questionnaire, three domains were made: Functional, Aesthetic & Knowledge. The initial part of the questionnaire was related to sociodemographic factors which included name, age, gender, occupation and address. Further the questionnaire for before treatment assessment concentrated on the need, knowledge and attitude for complete denture treatment. Next set of questions comprised of the expectations the patients are having after the treatment in all the three domains. The last part of questionnaire consisted regarding their knowledge regarding the investigations/ medial & dental history and how they were motivated for the treatment. The questionnaire for the after treatment at the 15 days recall check-up assessment had 4 domains: Functional, Aesthetics, Attitude and knowledge towards treatment and concentrated on whether the expectations were met and regarding the change in attitude towards the acceptance of complete denture. The last part of questionnaire consisted to know

whether they will motivate others for the treatment and about the denture home care.

Method of Collection of data

The questionnaire in patients' own known language was given in one of the appointments and asked to complete by his/her own. In case of difficulty felt by patient in understanding questions, the questions were explained by the clinician in the patients' own mother tongue. Following the completion of answering the questionnaire, the patients signed at the end of the questionnaire to mark their consent.

The collected data was analyzed individually for three domains in before treatment and four domains in after treatment. The mean and Standard deviation was calculated. t-test was performed and 99% confidence intervals (CI) were calculated by logistic regression in order to determine the association. All reported p-values are two-tailed and statistical significance value $p < 0.001$

RESULTS

A total of 120 patients took part in this study. Of which 56.6 % (n=68) were men and 43.3% (n=52) were women between age group of 45-65 years with mean age of men 58.5 years and females 52 years. When discussing gender wise in respect to the problems faced; men 70.5% (n=48), female 53.8% (n=28) patients faced problems in chewing, men 47% (n=32), female 69.2% (n=36) were not happy with the way they look, men 76.5% (n=52), female 61.5% (n=32) patients had problems in speech, men 58.9% (n=40), female 53.8% (n=28) had change in their taste sensation due to loss of teeth, men 41.2% (n=28), female 23% (n=12) were not satisfied with the diet they are having and men 35.3% (n=24), female 61.5% (n=32) felt embarrassed because of no teeth. Questions regarding Patient's knowledge & attitude regarding medical/Dental history, Lab Investigations were also included. Only 40% (n=48) knew the importance of Medical/Dental History. Interestingly it was found that only 23.3 (n=28) conformingly agreed that Lab investigations should be carried out and 50% (n=60) agreed to get investigations prior to the complete denture treatment if dentist prescribes them to get it. Only 30% (n=36) were self-motivated for Complete denture treatment, 45% (n=54) got to know about Complete denture treatment through their Friends/Relatives and 25% (n=30) through Media/ Advertisement/ Others. Most of the self-motivated patients were of younger age group and knew the importance of replacing teeth. In Table 2, it can be clearly seen that there is positive response after

Table 1 shows the distribution of answers with response alternatives and percentage distribution of responses concerning to the problems faced by patients

Question	Never n (%)	Hardly ever n (%)	Occasionally n (%)	Fairly often n (%)	Very Often n (%)
Problems in chewing	0 (0%)	16 (13.3%)	28 (23.3%)	44 (36.6%)	32 (26.6%)
Problems in Looks	24 (20%)	12 (10%)	16 (13.3%)	16 (13.3%)	52 (43.3%)
Problems in Speech	12 (10%)	12 (10%)	12 (10%)	16 (13.3%)	68(56.6%)
Change in taste sensation	16 (16.6%)	4 (3.3%)	28 (23.3%)	12 (10%)	60 (50%)
Satisfaction with the Diet	40 (33.3%)	40 (33.3%)	16 (13.3%)	28 (23.3%)	0 (0%)
Embarrassed because of no teeth	48 (40%)	0 (0%)	16 (13.3%)	20 (16.6%)	40 (33.3%)

Table 2: Significance in Functional, Aesthetics and Combined Domains Before and After Treatment

Domain	Functional ^a		Aesthetics ^b		Functional +Aesthetics ^c	
	Before	After	Before	After	Before	After
Mean	2.844	3.575	3.111	3.688	5.955	7.263
SD	0.621	0.515	0.603	0.539	1.030	0.754

a- P<0.0001, Confidence interval 0.99= ±0.1492 ± 0.1237
b- P<0.0001, Confidence interval 0.99= ±0.1443 ± 0.1295
c- P<0.0001, Confidence interval 0.99= ± 0.2475 ± 0.1812

Table 3: Significance in Functional, Aesthetics and Combined Domains Before and After Treatment in Males

Domain	Male					
	Functional		Aesthetics		Functional +Aesthetics	
	Before	After	Before	After	Before	After
Mean	2.705	3.617	2.901	3.686	5.607	7.303
SD	0.421	0.421	0.498	0.592	0.707	0.750

Table 4: Significance in Functional, Aesthetics and Combined Domains Before and After Treatment in Men

Domain	Females					
	Functional		Aesthetics		Functional +Aesthetics	
	Before	After	Before	After	Before	After
Mean	3.025	3.519	3.384	3.692	6.140	7.211
SD	0.780	0.537	0.617	0.466	1.203	0.763

treatment which indicates that there is improvement in function, esthetics, phonetics and comfort. Interestingly it was noted that males preferred function and females preferred Aesthetics (Table 3 & 4). Assessment of the Expectations and Attitude after the treatment was done at the 15 days post insertion denture check-up appointment. Graph 1.1 to 1.6 shows the distribution of answers for questions asked about their perception and expectations Before and After treatment

DISCUSSION

Teeth are required for mastication, phonetics, aesthetics structural balance and for comfort of an individual. With the loss of teeth, the above functions are impaired resulting in physical and psychological, psychological trauma to the individual. Further edentulism leads to a deep impact on the quality of life and on physiological, emotional and general health status of an individual.

To achieve successful treatment, it is vital to consider a number of issues throughout the denture process. Before treatment even begins, the patient's motivation for denture treatment and emotional attitude towards dentures must be evaluated. Patients will thereby gain realistic expectations of what can and cannot be achieved, and dentists will understand what the patient really wants. Then, the dentist must communicate with the patient to help achieve success in treatment that helps in better mastication, speech, appearance and in diet. By learning to handle patient complaints positively, dentists can educate patients to solve their own problems in future. It is routinely observed when an edentulous person comes to the clinic and when asked the purpose of his/her visit, the usual answer is "I want a denture". This is even observed in the case history recording wherein the individual complains of loss of teeth and advised complete denture. This shows that the subject just needs a

denture and the dentists are not giving importance to analyse the need of a denture which is actually dictating factor for the treatment of an edentulous subject. Many edentulous individuals may need a denture only for mastication or for esthetics or phonetics or comfort or may be for one or more of the combinations of these four. There is a definite need to assess individual awareness and needs at initial appointments that improves our diagnostic skills and is essential in achieving goal of complete denture treatment. A structured questionnaire exploring awareness and need, establishes communication between dentist and patient builds trust and patient to verbalize their problems. After the assessment of the questionnaire before treatment, we can note that (Table 1) 63% (n=76) patients faced problems in chewing, 56.6% (n=68) were not happy with the way they look, 70% (n=84) patients had problems in speech, 60% (n=72) had change in their taste sensation due to loss of teeth, 67% (n=80) were not satisfied with the diet they are having and 50% (n=60) felt embarrassed because of no teeth. There is significant association between accepting tooth loss and self-confidence, also most of the edentulous people did not enjoy their food, avoided eating, laughing and going out in public, and avoided forming close relationship as a consequence of losing their teeth. It can also be noted that men preferred dentures for chewing and speech while females preferred looks and speech (Table 3 & 4). Men are more concerned about their diet while most females feel embarrassed because of no teeth. This is evident also in the study done by Szntpetery AG *et al.*, where the authors noted that problems with eating and chewing dominated when subjects first sought prosthodontics treatment. Suresh S *et al.*,^[11] in their study concluded that most of the edentulous male persons prefer a denture for mastication, phonetics, esthetics and comfort in this order as preference whereas for females the preference order is mastication, esthetics, phonetics and comfort. Only 30% (n=36) were self-motivated for Complete denture treatment, 46.7% (n=56) got to know about Complete denture treatment through their Friends/Relatives and 26.7% (n=32) through Media/ Advertisement/ Others. Most of the self-motivated patients were of younger age group and knew the importance of replacing teeth. This also signifies that the knowledge regarding the Prosthetic rehabilitation in this area is less and needs to be further emphasized on for the betterment of the population. Patient's pre-treatment

expectation may influence treatment outcomes and treatment failure may result from mismatched perceptions and expectations of the subject and the dentist. Since this study was designed to determine the correlation relationship between patient Knowledge, Attitude & Expectations of the denture, initially before starting the treatment, patients were asked about their expectation and general problems due to loss of teeth, when comparing the results with that found at the 15 days post denture recall check-up, a significant positive relation was found between their knowledge, attitude and expectations.^[7,8] All three variables are the most important variables that may explain the functional aspects of denture in general, the results of this study agree with the findings of previous studies and papers that examined patient attitude and satisfaction towards their dentures.^[9,10] When patients were asked to express their expectation about the functional performance of the present denture after 15 days of usage, also a strong relation was found between the different variables, General satisfaction, Functions, and Esthetically acceptable gave rise to such findings, a statement which is supported by many other studies.^[12-18] The last two questions addressed some knowledge aspects. All the patients had overall positive views about the duration for the fabrication of new denture was adequate 60% (n=72). All the patients were instructed about the post denture home care in their own mother tongue. 80% (n=96) understood and would follow the denture home care properly. Remaining did not understand the instructions or their attitude towards the complete denture treatment was not good. As seen from the variables previously mentioned, a powerful relationship was demonstrated between the measures of Knowledge & Attitude before insertion and patient perspective after 15 days of use. Langer *et al.*,^[13] pointed out that success and patient acceptance of the complete denture is determined by an interplay of different functional, psychological, and constructional factors which is in agreement with this study. Moreover, Van Waas^[17,18] stated that patients attitude toward denture prior to receiving them may appear to play an important role in satisfaction with their future dentures as those who thought positively most often had positive responses towards their dentures. Jonkman *et al.*,^[14] stated that the attitude toward wearing denture was a prospective tool for assessing the satisfaction with complete denture wearing.

CONCLUSION

The present survey was conducted to gather data using questionnaire about patients' knowledge, attitude and expectations before and after the complete dentures treatment and to evaluate their change in attitude and expectations. The study constituted of 120 completely edentulous subjects reporting to the Department of Prosthodontics, Navodaya dental college & hospital, Raichur. Following conclusion can be drawn from the present study:

- Most of edentulous person say they face problems because of edentulousness & men needed dentures mostly for Mastication & speech. Females needed denture for Looks & Speech.
- The knowledge regarding the Radiographic or Lab Investigations to be carried out was less and also regarding medical/dental history.
- Most edentulous persons got to know regarding denture treatment through their friends/relatives. This showed there is lack of self-motivation and less role of media/advertisements. All the above conclusions indicate the lack of knowledge.
- Hence, a distinct need exists for dental surgeon to understand patient, educate and motivate them and to know their expectations before treatment.
- A good positive correlation was found between patient attitude before receiving the denture and satisfaction with the new denture.

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