

## Complete Denture Satisfaction among Population in Bihar – A Study

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**Abstract:** Being an edentulous is a kind of disability in which the affected subject is unable to masticate the food properly which leads to a number of problems related to digestion as well as the health is concerned. Edentulous people are unable to enjoy the food as dentate people and with passing of time they were reluctant to take food properly which leads to malnutrition and other health related issues. Edentulous people lack proper esthetics, having difficulty in speech and so on. Complete denture treatment is the most common and most extensively used treatment for replacing missing tooth across the globe. Complete denture includes the maxillary and mandibular denture replacing the entire tooth. Denture satisfaction is very much of concern to the patient as well the treating clinician as not only involves mastication, it concern speech and esthetics as well to the patient and peers. It is important to know why some patients have more difficulty than others in wearing the denture. The fabrication of denture is play vital role but it also includes medical and psychological well being of the patient. The present study gives insight about the patient satisfaction with complete dentures.

**Keywords:** Complete denture, Dentate, Edentulous, Maxilla, Satisfaction.

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### I. Introduction

The complete dentures replace the entire dentition and restore the functions of mastication, speech and aesthetics. This is the only option after the entire tooth or implant supported options are exhausted. It is the most commonly used treatment after complete loss of dentition and its use is not going to decline in among population with limited economic resources<sup>1</sup>. With the increasing age there is a loss of almost all the functions of the body and the oral cavity is no exception. Once the patient become edentulous there is a rapid resorption of the residual alveolar ridge (RRR) in first six months<sup>2</sup> of life and later slowly as we know that the alveolar process of jaws is dependent on the presence of teeth hence changes in shape & size due to age are more marked in completely edentulous individual. Once an individual become edentulous the overall function of the oral cavity is compromised. The increase in life expectancy of the people means that the demand of prosthodontic treatment will increase many folds with the upcoming years. According to world health organization report the incidence of edentulism in Canada in individuals older than 65 years was 58% in 1993, 36% in Finland in 1997 and 46% in UK in 1998<sup>3</sup>. In 1998 it was reported that 13% of all adult in UK were edentate and the condition was strongly correlated with age<sup>4</sup>. As the age increase chances of edentulism also increases, but most of the time people wish their natural tooth function to continue rather than use dentures this clearly indicates their psychology regarding denture function as they wish their denture work as same as their natural dentition. The complete denture fabrication is involved a number of steps which are technically very important for the final outcome of a denture however as we know the denture success vary patient to patient due to their different medical as well as psychological attitude. The denture patients were classified by MM HOUSE based on their psychological attitude viz exactive, indifferent, philosophical and hysterical, clearly indicates how the denture success vary patient to patient. Several factors like retention, stability, speech, mastication contribute the overall success of the complete denture. Conventional complete denture improves patient satisfaction and quality of life<sup>5</sup>. This is still valid regardless of technique used for making of denture<sup>6</sup>. Reisine et al reported numerous impacts of denture on quality of life<sup>7</sup>. The present study was done in order to give insight about the possible relation of denture satisfaction with the clinical quality of the denture involving parameters like retention and stability (i.e. fit of denture), mastication, speech, esthetics (i.e. facial appearance), smoothness and finishing of the denture.

### II. Material And Methods

65 patients who received complete denture therapy were selected randomly from the outpatient department of prosthodontics of Patna dental college and hospital during the year 2010-11 and they were recalled after 14 days (2 weeks) of receiving of prosthesis. The patient included were those who received the complete denture recently (i.e. not more than two weeks old) and are willing to come for recall visit. They must

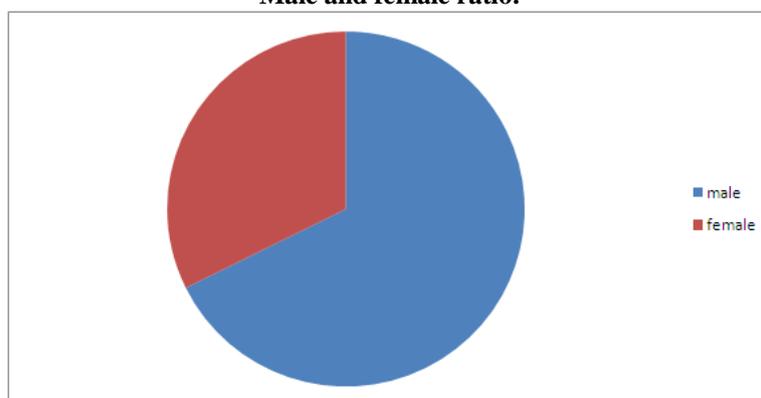
be not suffering with any systemic problem which has any direct/indirect bearing on the outcome of complete denture. They are not underwent any kind of surgery including implant surgery involving the oral cavity.

**Methodology:** All the patients are comfortably seated on the dental chair and a written consent was taken and the process was explained to them. The questions were asked in his/her mother tongue. They are advised to give their answer in their mother tongue. They are advised to answer all the question or tick mark the option given. The grading for satisfaction is(a) very much satisfied,(b) satisfied,(c) partially satisfied (d) not at all satisfied ,with the parameters like retention and stability(i.e. fit of the denture),mastication, speech, aesthetics(facial appearance),smoothness and finishing of the complete dentures and overall satisfaction of the complete denture.

### III. Results

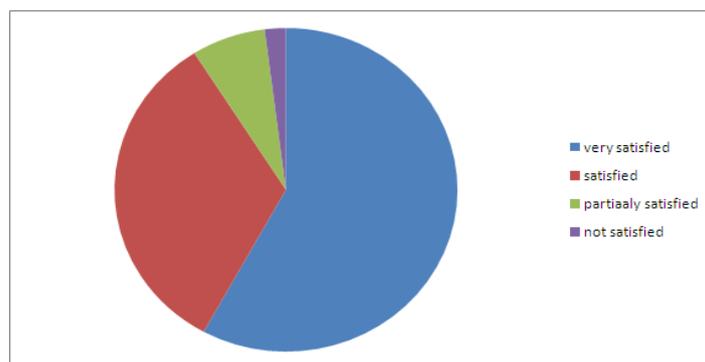
Total no of patients were 65 in number in which 44 were male and 21 are female, the mean age of these patients were 64.7

**Male and female ratio:**



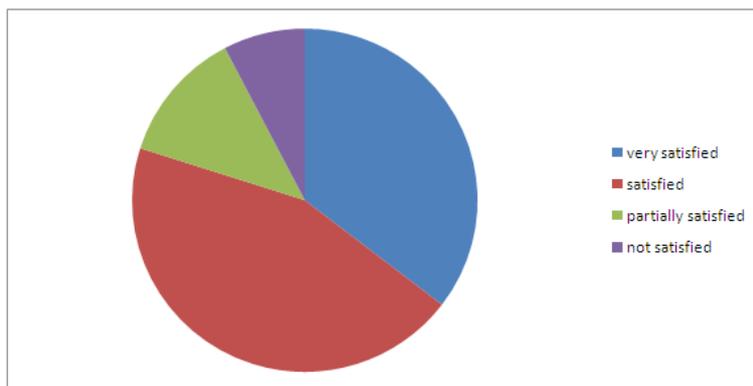
**Retention and stability of upper denture:**

Very satisfied	Satisfied	Partially satisfied	Not satisfied
58%	33%	7%	2%



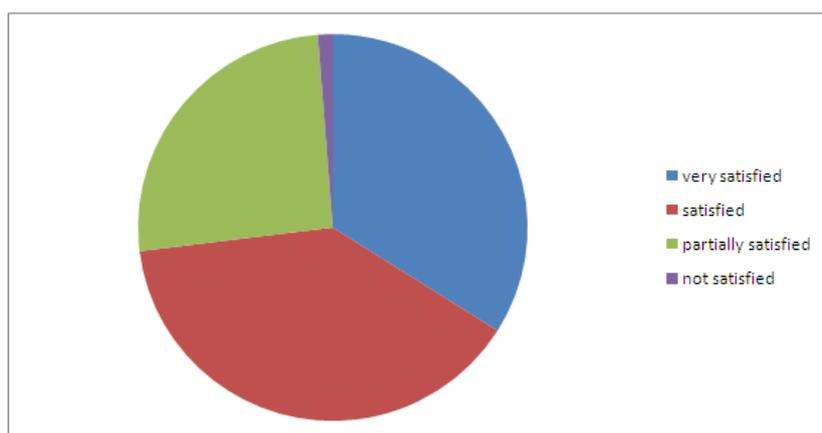
**Retention and stability of lower denture:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
36%	48%	13%	8%



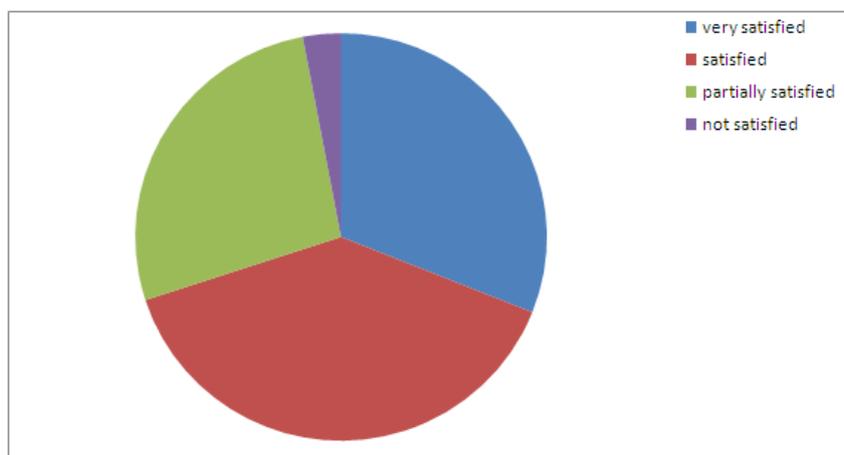
**Mastication:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
33%	38%	25%	4%



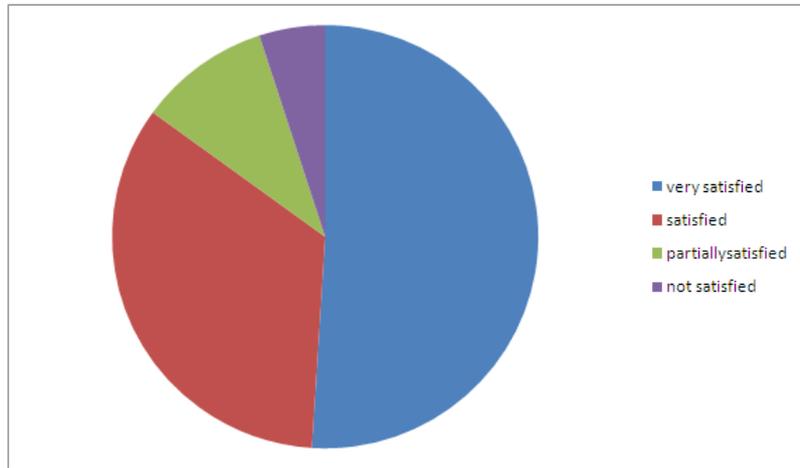
**Speech:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
31%	39%	27%	3%



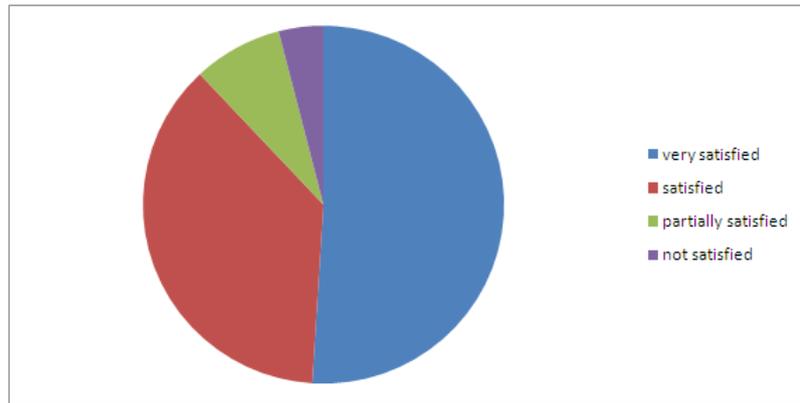
**Aesthetics:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
51%	34%	10%	5%



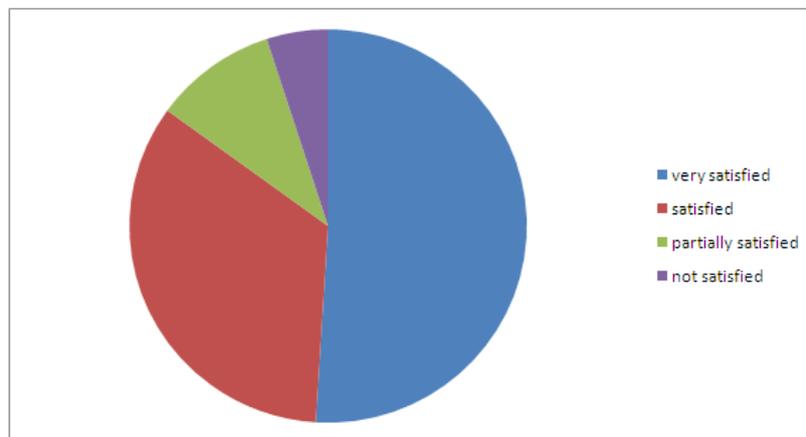
**Smooth and finishing of denture:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
44%	49%	6%	1%



**Overall satisfaction with complete denture:**

Very satisfied	satisfied	Partially satisfied	Not satisfied
51%	37%	8%	4%



**IV. Discussion**

Complete denture treatment is one of the complicated treatments in terms of procedure and steps required during the fabrication for, both the dental surgeons and the patient. As proposed by House denture patients are classified into four types depending upon the mentality and the each of the patient is to be handled

by his/her mental makeup accordingly. The ultimate goal of any treatment is to make patient satisfactory in respect all the parameters related to the concerned treatment. Making satisfactory complete denture is an ultimate goal of any dental surgeon but it is also worth of mentioning that most of the denture patients found to be unsatisfactory. Michael Robert Fenlon et al reported that quality of mandibular residual alveolar ridge, retention and stability of mandibular, accuracy of reproduction of posterior most relationship and patient adaptability were powerful determinants of patient satisfaction with new complete dentures<sup>8</sup>. According to Marinus AJ satisfaction with dentures for most patients is individually determined and, for dental surgeons and patient it is often unpredictable<sup>9</sup>.

In the present study denture was assessed in the terms of fit (retention and stability), mastication, speech, aesthetics, smoothness and finishing. Written as well as verbal consent were taken. The grading was set as very much satisfied, satisfied, partially satisfied and not satisfied at all. The results are as 58% patients were very satisfied with their fit of upper denture however only 36% are very satisfied with the fit of lower denture. The lower % of lower denture is due to rapid resorption as well as lower denture bearing area in comparison to upper denture and therefore is subject to less magnitude of adhesive and retentive forces<sup>10</sup>. Mastication is very important function of complete denture in this study 33% patients were very satisfied in terms of mastication, as we know the denture rest on the bone and its mucosa without any internal attachments like natural tooth so achieving satisfaction like natural teeth is not possible. However with proper patient management it is possible to do mastication properly. Aesthetics is another important factor related to denture satisfaction, females with complete denture reported less satisfaction with esthetics and ability to chew than males<sup>11</sup>. However some studies reported no significant relationship between gender and complete denture satisfaction<sup>12</sup> in these study 51% patients were very satisfied and 34% were satisfied with esthetics. Ellis J<sup>13</sup> et al reported increased satisfaction among patients with improved aesthetics. Smoothness and finish is also one of the important parameters regarding satisfaction of the denture, if the finish and smoothness is not good patient complains about their uneasiness regarding the wearing of denture and hence it contributes significantly about satisfaction. In this study 44% of the patients are very satisfied regarding their smoothness and finish of complete denture. If patient masticate well and comfort is good while wearing the denture it gives overall satisfaction to the patient which is 51% which is not bad. One thing must be kept in mind while treating the patient with complete denture that psychological factors have a valuable role in determining patient satisfaction and compliance with dental status and treatment. The evaluation of personality characteristics might be useful in predicting patient behavior and may have an effect on the provision of therapy<sup>14</sup>.

## V. Conclusion

It is concluded from the study that the patient management is very important in managing the complete denture patients, as well as the personality of patient must be taken into consideration as it is very important effect on the satisfaction of the denture wearer. The gender and age is also important in this regard. Assessment of patient satisfaction is very important part of any kind of dental treatment specially denture as it encourages or discourages the clinician in further improving the technique and quality of the treatment. It will improve the clinician to perceive the changes required in their treatment and also the personality of the patient.

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