

## Original Research

### **A Survey to assess patient's satisfaction on aesthetics, function and comfort in complete denture patient after receiving complete denture prostheses in H.P Government Dental College, Shimla**

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#### **ABSTRACT**

**Aim-** Is to assess patient's satisfaction on aesthetics, function and comfort in complete denture patient after receiving complete denture prostheses in H.P. Government Dental College, Shimla. **Material and Method-**120 Patients who received complete denture prostheses were randomly selected and were recalled after two weeks of receiving the prosthesis. A questionnaire which sought patient's satisfaction on aesthetics, function and comfort of complete denture was designed and were grouped based on the scale of very satisfied, satisfied and dissatisfied for above mentioned parameters and overall satisfaction for complete dentures. **Result-**This study observed that 50 % patients were highly satisfied, 37% satisfied, 10% were moderate in satisfaction and 3% were dissatisfied. **Conclusion-**This study was done to evaluate the relationship between patient satisfaction and the newly constructed denture prostheses, as it would indicate the degree of success of the treatment given.

**Key words:** aesthetics, complete denture, patient's satisfaction

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#### **Introduction**

Complete denture means the replacement of the natural teeth in the arch and their associated parts by artificial substitutes; <sup>1</sup>According to Berg, construction of a good complete set of dentures depends on technical, biological, and physiological interactions between the patient and dentist.<sup>1</sup>

Assessment of prosthetic treatment needs is essential to determine unmet oral health care needs in a systematic manner and to gather the information required to bring about change beneficial to the oral health of the population<sup>3</sup> Patient satisfactions has been the ultimate goal in any dental treatment.

Patient satisfaction surveys help to identify the lacunae in our treatment modalities, which in turn translates into better care and happier patients which helps in demonstrating patients that a superior quality of treatment is provided and that too with utmost care.<sup>3</sup>

Complete denture is essential to rehabilitate the stomatognathic system by improving masticatory efficiency, phonetics and aesthetic appearance of completely edentulous patients<sup>4</sup>. The ultimate goal for every patient should be maintainable health for the total masticatory system <sup>2</sup>. In a patient receiving

complete denture prosthesis, many factors have a combined role in achieving his/her satisfaction. An efficient mastication, good aesthetics, comfortable speech and comfort in function are the factors in patient satisfaction.<sup>2</sup> Dental professionals need an accurate perception of how patient feel about their teeth and its impact on their daily living.

Very few studies have been conducted in India, regarding the oral health status, treatment needs and satisfaction with treatment for the elderly population. Keeping these views in mind, an attempt was made to assess patient's satisfaction on aesthetics, function and comfort in complete denture patient after receiving complete denture prostheses in H.P Government Dental College, Shimla

## Materials and Methods:

### Patient selection:

120 Patients who received complete denture prostheses were randomly selected from the outpatient section of the Department of Prosthodontics, H.P. Government Dental College. Patients were recalled after two weeks of receiving the prosthesis. A questionnaire which sought patient's satisfaction on aesthetics, function and comfort of complete denture was designed.

### Inclusion Criteria

- 1.The patients who received complete denture prostheses earlier and experienced users from the department.
- 2) Patients recalled within two weeks from the insertion.
- 3) Patients with good physical and mental health.
- 4) Patients who were able to answer the questions.

### Exclusion Criteria:

The following criteria were excluded from the study:

1. Patient with implant-supported complete denture prostheses
2. Patient with removable partial denture prostheses
3. Patient with implant-supported partial dentures.

## METHODOLOGY:

Patients were made comfortable after properly seated on the dental chair and asked to participate in the survey after explaining the aim and methodology of the survey. After obtaining their written consent to participate in the study, a questionnaire was filled in consultation with the patient. The details regarding the newly constructed prostheses was recorded as it was reported by the patient.

A Questionnaire was designed that included various factors of denture satisfaction.

To facilitate the categorization, we had divided major concerns of patient related to the complete denture under categories:

1.Asthetics	Denture appearance, Colour of teeth and appearance of face
2.Function	Speech, Mastication, Swallowing
3. Comfort	Fit of denture, Pain, Sore spots

Patients were encouraged to give frank opinion about his/her denture and were assured that the identity would be kept confidential. The starting point for the questionnaire was inquiries related to socio-demographic factors which included name, age, sex, education, and socioeconomic status. They were grouped based on the scale of very satisfied, satisfied and dissatisfied for above mentioned parameters and overall satisfaction for complete dentures. The obtained data were extracted and subjected to analysis.

## RESULTS

Among the total population (120) chosen for the study 60 were males and 60 were females.

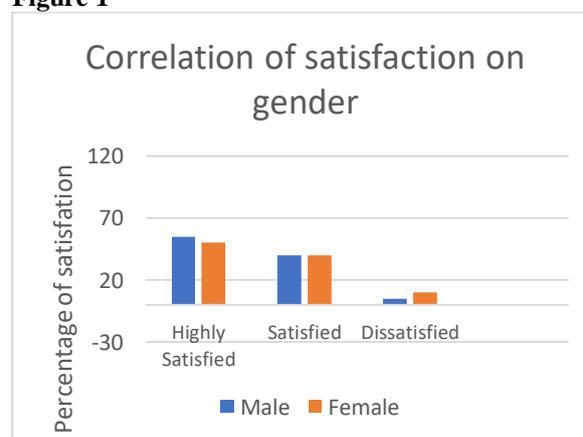
### CORRELATION OF SATISFACTION ON GENDER

55% of males and 50% of females were highly satisfied.

40% of males and 40% of females were satisfied.

5% of males and 10% of females were dissatisfied.

Figure 1



### I ASTHETICS

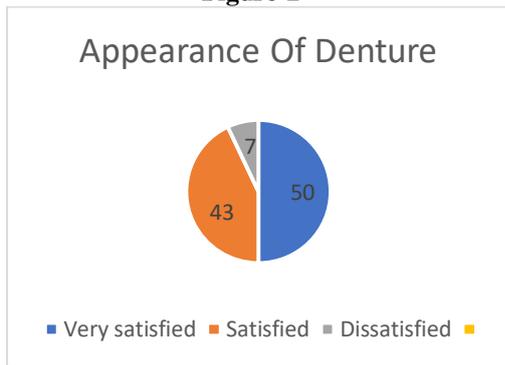
1.Patient satisfaction as related to Appearance of the denture.

60/120(50%) Patients were very satisfied with the colour of denture

51/120(43%) Patients were satisfied with the colour of denture

9/120(7%) Patients were dissatisfied with the colour of denture.

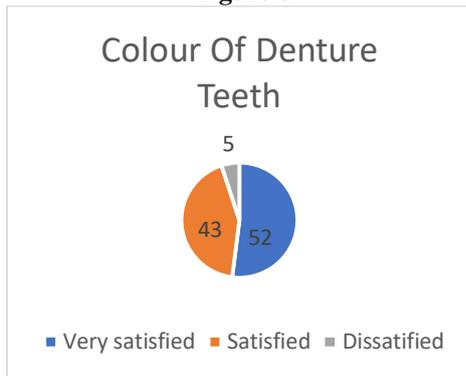
**Figure-2**



**2.Colour of Denture Teeth**

63/120(52%) Patients were very satisfied with the colour of teeth  
 51/120(43%) Patients were satisfied with the colour of denture  
 6/120(5%) Patients were dissatisfied with the colour of denture.

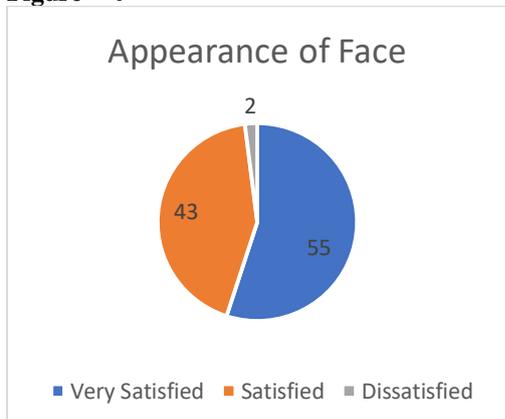
**Figure-3**



**3. Appearance of face**

66/120(55%) Patients were very satisfied with the appearance of face  
 51/120(43%) Patients were satisfied with the appearance of face  
 3/120(2%) Patients were dissatisfied with the appearance of face

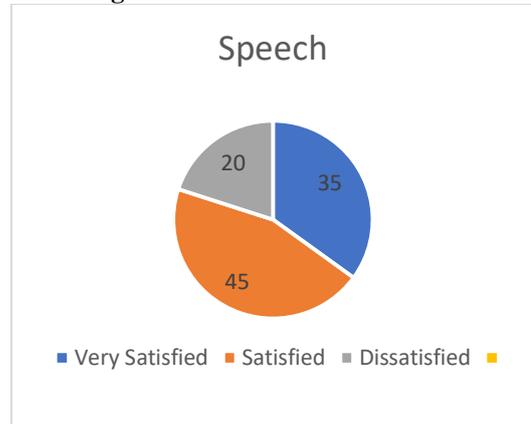
**Figure – 4**



**II FUNCTION**

1. Patient satisfaction as related to Speech  
 42/120(35%) Patients were very satisfied with speech  
 54/120(45%) Patients were satisfied with speech  
 24/120(20%) Patients were dissatisfied with speech.

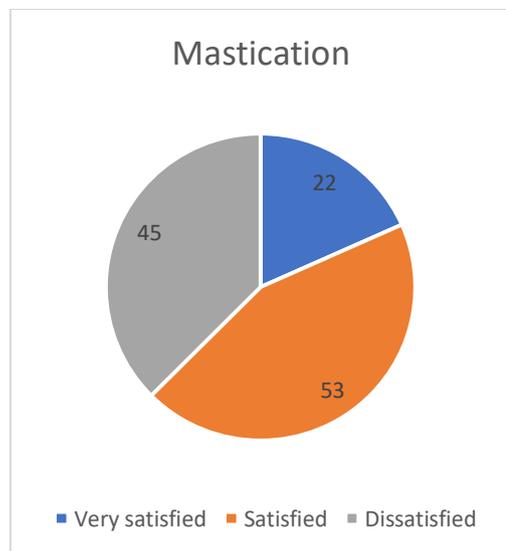
**Figure -5**



**2. Mastication**

27/120(22%) Patients were very satisfied with mastication.  
 63/120(53%) Patients were satisfied with mastication.  
 30/120 (25%) Patients were dissatisfied with mastication.

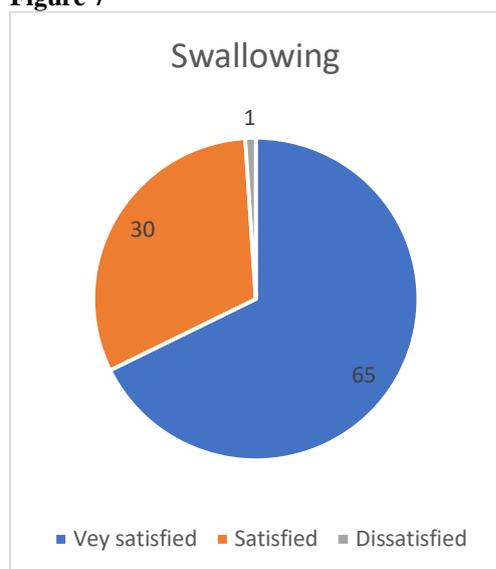
**Figure-6**



**3. Swallowing**

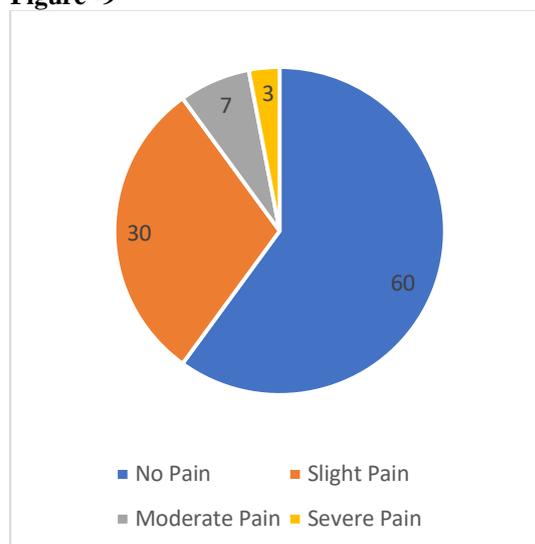
78/120(65%) Patients were very satisfied with swallowing.  
 36/120(30%) Patients were satisfied with swallowing  
 6/120 (1%) Patients were dissatisfied with swallowing.

**Figure 7**



3/120 (3%) Patient had severe pain while wearing denture

**Figure -9**



**II COMFORT**

**1. Fit of Denture**

72/120(60%) Patients were very satisfied with fit of denture.

30/120(25%) Patients were satisfied with fit of denture

18/120(15%) Patients were dissatisfied with fit of denture

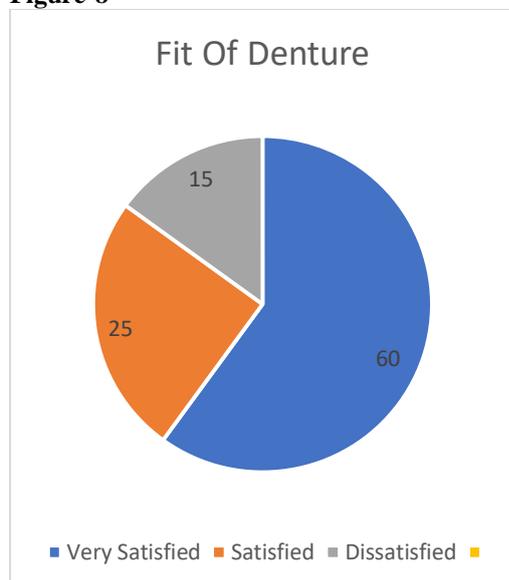
**3. Sore Spots/Ulcer**

60/120(50%) Patients had no ulcers after wearing denture.

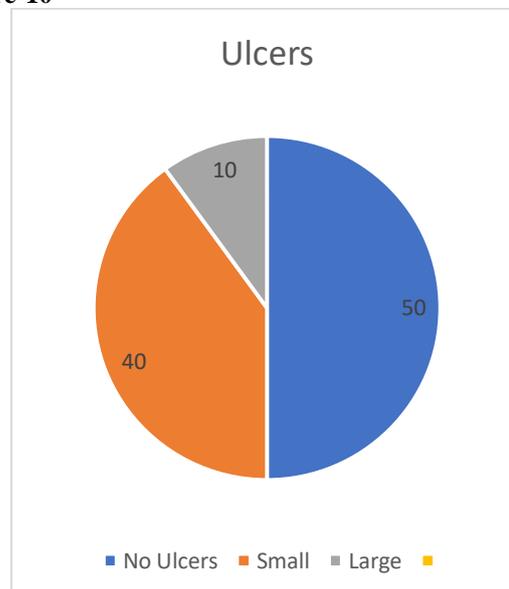
48/120(40%) Patients had small ulcers after wearing denture.

12/120 (10%) Patients had large painful ulcers after wearing denture.

**Figure-8**



**Figure-10**



**2. Pain-**

72/120(60%) Patients had no pain while wearing denture.

36/120(30%) Patients had slight pain while wearing denture

9/120 (7%) Patients moderate pain while wearing denture

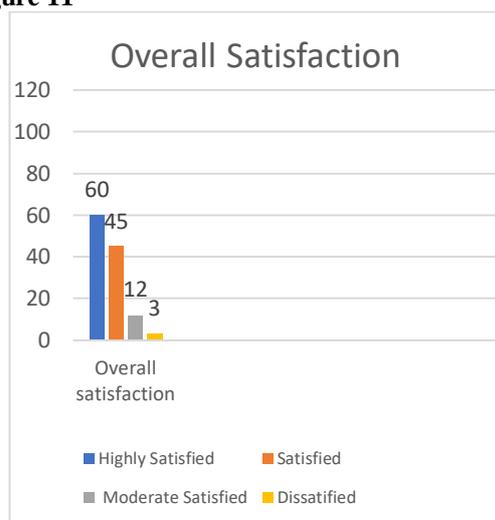
**IV Overall Satisfaction**

60/120(50%) Patients were highly satisfied with denture

45/120(37%) Patients were satisfied with denture

12/120 (10%) Patients had moderate satisfaction with denture

3/120 (3%) Patient were dissatisfied with denture

**Figure 11**

## DISCUSSION

Complete denture treatment is one of the complicated treatments in terms of procedure and steps required during the fabrication for both the dentist and the patient. In a patient receiving complete denture prostheses, many factors have a combined role in achieving his/her satisfaction.<sup>1</sup> For an operating dentist efficient mastication, good esthetics, comfortable speech, and wearing comfort for the patient have been the ultimate concern.

The present survey was conducted in the department with 120 patients who had received complete denture prostheses recently. Denture satisfaction was assessed based on aesthetics, function, comfort and overall satisfaction of denture wearer.

Figure 1, reveals that females were less satisfied than males with the treatment provided is in conjunction with the results of previous studies by Tin-Oo *et al.* and Pan *et al.* as well.<sup>[6,7]</sup> Physical and psychological factors such as stress levels, anxiety, hormonal changes, blood pressure, etc., in female patients, may have a role to play.

Figure 2.-reveals 60 patients were very satisfied, 51 being satisfied and 9 being dissatisfied with appearance of denture.

Figure 3. reveals 63 patients were very satisfied, 51 being satisfied and 6 being dissatisfied with colour of denture teeth

Figure 4. Reveals 66 patients were very satisfied, 51 being satisfied and 3 being dissatisfied with appearance of face. Hence, appearance and colour and the artificial teeth has been the major factor in achieving satisfactory appearance in denture patients. Ellis J et al <sup>8</sup>, in his pilot study reported that there was increased satisfaction among patients with improved aesthetics. Aesthetics has direct initial impact on patient satisfaction.

Figure 5. reveals functional satisfaction in relation to speech in which 42 patients were very satisfied, 54 were satisfied and 24 being dissatisfied.

Production of sounds with the prosthesis placed on a movable tissue like oral mucosa has always been problematic as denture prosthesis, however well adapted will undergo small amount of movement when placed on a movable base. Hence, speech with new denture is always not satisfactory, at least during its initial period of its wearing. E Berg <sup>9</sup>, also in his assessment of 74 denture patients stated that major prosthodontic problem during period of adaptation was related to speech. However, with the persistent wearing and practice, all patients get accustomed to good speech.

Figure 6. reveals only 27 patients were very satisfied, 63 satisfied and 30 being dissatisfied in mastication with denture.

With the new prosthesis that is just placed in contact with unstable mucosa, mastication is a herculean task to perform. Patient who is in transition from dentulous to edentulous state finds it difficult to handle the movements of the prostheses on a moving foundation. This is also evident in study done by Szentpetery A.G et al where the authors noted that problems while eating and chewing dominated when subjects first sought prosthodontic treatment.

Figure 7. reveals 78 patients were very satisfied with denture while swallowing, 36 were satisfied and 6 being dissatisfied.

Figure 8. reveals patients based on comfort in which 72 patients were very satisfied with fit of denture, 30 only 18 patients being satisfied and dissatisfied respectively.

Michael Robert Fenlon et al,<sup>11</sup> stated that Quality of the residual alveolar ridges, retention and stability of the dentures, accuracy of reproduction of jaw relationship and patient adaptability were powerful determinants of patients' satisfaction with fit of new complete dentures.

Figure 9. reveals pain while wearing complete denture, 72 patients had no pain, 36 had slight, 9 had moderate and 3 had severe pain on wearing denture. According to Robert W. Loney<sup>12</sup> possible causes of denture pain include occlusion, denture base (fit and contour), vertical dimension, infection, a systemic disease or condition, or an allergy (rare).

Figure 10 reveals- sore spots in denture wearers. 60 patients had no sore spots, 48 had small and 12 patients had large sore spots. According to J.Gade et al, denture sore spots one or more commonly develops within a day or two after the insertion of a new denture. This may be result of over extension of the flanges, sequestration of spicules of bone under the denture or a roughened or high spot on the inner surface of the denture.

Figure 11 reveals overall satisfaction of denture wearers 50 % were highly satisfied, 37% satisfied, 10% were moderate in satisfaction and 3%

were dissatisfied. Thus, overall satisfaction depends on function, esthetic and comfort.

## CONCLUSION

Denture quality, patient's level of acceptability and quality of life are all related to patient satisfaction. This study concluded that the esthetic, comfort and functional parameters of patient undergone complete denture treatment were mostly highly satisfied. This study was done to evaluate the relationship between patient satisfaction and the newly constructed denture prostheses, as it would indicate the degree of success of the treatment given.

Hence assessment of patient satisfaction should be a routine part of any practice after the treatment is complete. This will help in constant improvement in the quality of services provided by healthcare workers. Also, it is recommended that the technician & Dentist should incorporate modifications into their procedure for fabrication of dentures as it reduces patient's dissatisfaction.<sup>13</sup>

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