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"A SURVEY TO EVALUATE PATIENT'S COMPLAINT AND SATISFACTION WITHIN 6 MONTHS OF CONVENTIONAL COMPLETE DENTURE TREATMENT IN POPULATION OF HIMACHAL PRADESH"

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ABSTRACT:

Edentulism has been defined as the loss of all-natural dentition. According to the World Health Organization (WHO), edentulism affects between 7 and 69 % of people worldwide. Due to its negative effects on one's oral and overall health, edentulism reduces one's quality of life. Complete denture treatment is beneficial for many edentulous individuals, and they report that its use provides satisfactory oral and masticatory function. The population's continued expansion clearly predicts that over the coming few decades, edentulism rates will either stay the same or rise. according demographic statistics, the majority of the patients in the existing research were males over 50 years and were illiterate. The majority of the participants exhibited issues with mastication, followed by discomfort, speaking, and retention. But as can be seen from the comments, many were happier with the hygiene and appearance of their dentures. In contrast to mandibular dentures, the majority of the populace reported being extremely delighted with their maxillary dentures.

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INTRODUCTION

Edentulism has been defined as the loss of all-natural dentition. According to the World Health Organization (WHO), edentulism affects between 7 and 69 % of people worldwide. Due to its negative effects on one's oral and overall health, edentulism reduces one's quality of life. Complete denture treatment is beneficial for many edentulous individuals, and they report that its use provides satisfactory oral and masticatory function. The population's continued expansion clearly predicts that over the coming few decades, edentulism rates will either stay the same or rise. (1)

Edentulism can substantially affect oral and general health as well as overall quality of life. complete edentulism may be the beginning of a new set of problems. ⁽²⁾ Oral health may involve many physical and psychological issues, wearing dentures affects eating, speaking, facial expressions, and appearance of a person. A complaint is defined as an utterance of pain, discomfort, or dissatisfaction. ⁽³⁾ The loss of teeth can impair function, aesthetics and phonetics hence it should be restored with prosthesis. ⁽⁴⁾

Conventional complete denture therapy will remain an important and essential tool in restoring the oral function of edentulous adults in the foreseeable future, as they provide an expected aesthetic and enable patients to maintain normal speech, as well as provide occlusal support for adequate chewing. (5,6) Despite the increasing use and remarkable benefits of dental implants, conventional dentures are still the most common type or oral prosthesis

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among elderly people. ⁽⁴⁾ Such dentures should be comfortable and lead to patient satisfaction, both of which are considered the main goals of treatment. ⁽⁷⁾

Many practitioners will experience a situation, whereby a patient with newly fabricated complete dentures continues to experience difficulty in adapting to them. Post insertion problems are a reality to be faced and tackled. Studies have confirmed that approximately 50% of complete denture patients present post insertion complaints.

Placement of a complete denture is not the final step in the treatment of edentulous patients and patient's visit to the dentist continues long after that. (9) It has been reported that with advancing age both men and women experience difficulty in learning to adapt and to manage removable prosthesis. This, coupled with unrealisable high expectation of some older age group has been reported as a major cause of complaints following denture insertion in the elderly. (10)

Quality of the denture depends upon a number of factors like retention, stability, dimensions, occlusion, aesthetics, speech, difficulty in chewing, food accumulation etc. Denture related problems are likely to arise during denture wearing due to alteration of anatomical structures, difficulty in adaptation, and technical faults in denture design and fabrication. (4)

Though dentists may have their own means of evaluating denture quality (Sato et al., 1998), the success of complete denture treatment should be evaluated in terms of patient satisfaction (Jacob, 1998), even if dentists are able to evaluate the quality of complete dentures.⁽¹¹⁾

Berg examined patient satisfaction in patients with new complete dentures after insertion, at one year and two years after insertion and found that satisfaction fell over the first year significantly but only marginally in the second year. One study demonstrated that quality of new complete dentures was significantly related to patients' satisfaction with the dentures at first review and to patients' satisfaction with and use of the dentures after three months. (12)

The patient's experience and appreciation of his dentures are determined by his specific attitude toward their adaptation and use. This attitude, in turn, is probably influenced by a series of social factors (the patient's sex and age, education, social status etc) and by the general state of his health. (13)

Since adaptation to new conventional dentures is highly variable, it is not known how long dissatisfied patients should wait before opting for other dental treatment options. The research hypothesis is that a period of 6-8 weeks may not be sufficient to achieve optimal use, but further improvements in denture adaptation may be observed for up to 6 months. (14)

The goal of this study was to examine patient complaints and satisfaction six months following the placement of new conventional complete dentures with respect to retention, pain, speech, masticatory efficiency, appearance, and cleaning efficiency of the maxillary and mandibular dentures at the Shimla location of the HP Government Dental College in order to provide better care for patients who are completely edentulous in the future. The extent to which these concerns affected patients' comfort with their denture was investigated, along with the particulars and quantification of patient complaints of complete denture treatment.

MATERIALS AND METHODS

The sample of patients for this study consisted of 132 edentulous persons whose treatment with complete dentures had been completed and who reported within 6 months of their denture fabrication in the Department of Prosthodontics, Shimla city of Himachal Pradesh bordered to the west by Punjab, the southeast by Uttar Pradesh, the east by China, the southwest by Haryana, and the north by Jammu & Kashmir. Shimla is situated in the north western Himalayan hill. The age range from 16 to 45 years old is where the majority of the population (55%) is concentrated. Another 20% of people are under the age of six, and 8% are under the age of six. The ratio of male to female is 1000:930. Himachal Pradesh locals make up the lion's share of Shimla's populace. The literacy rate is 89.53 % in males and 75.93 % in females with an average literacy rate of 82.80 % in Himachal Pradesh population which is higher than national literacy rate of 77.7 % according to the report published by the national survey of India.

A questionnaire was created to ascertain how patients felt about the significance of certain complete denture aspects. Patients wearing denture regularly after denture treatment, with good physical and mental health and who were able to answer the questions are were included in the study. Ethical approval to conduct the study was obtained from the Institutional Ethical committee. The members reviewed the research work; information document and consent form and approved.

The inquiries were made while patient was comfortable on dental chair, given a brief explanation of the questionnaire, and provided with an informed consent form in Hindi and in English. The questionnaire's design was based on earlier studies, and the questions are fairly basic. Patients were encouraged to provide an honest assessment of their denture (It was examined and tested in a pilot research). After analysing the pilot study's findings, it was determined that no changes were required. The survey was presented as a confidential inquiry into patients' satisfaction with dentures. The starting point for the questionnaire was inquiries related to sociodemographic factors which included name, age, sex, education and time of denture usage. The

questionnaire's design was based on earlier studies, and the questions are fairly basic. All patients received an extensive questionnaire and accompanying instructions.

It was made clear in the accompanying instructions that if the patient was not wearing the dentures that had been prescribed by their clinicians, they should not respond to the questions and also patient with implant supported partial/complete denture prostheses were not included

in the study. The study was conducted for a period of 1.5 year from February 2021 to October 2022.

Denture assessment form consist of two portions: *Section one* includes the demographic information of the patients which were patient's name, age, gender, degree of education, and time of denture use. *Second section* included thirteen questions related to patient's denture experience after wearing denture within 6 months of complete denture treatment. Questionnaire Performa included six factors which are Retention, Pain, Speech, Masticatory efficiency, Aesthetics and Cleaning of denture, each factor being related to both maxillary and mandibular denture. Three responses were provided to patient for each question for which patient will choose only one response according to their complaint. In last question patient was enquired about the overall satisfaction of their both upper and lower denture on a scale of 1 to 10, with 1 representing the lowest score and 10 the highest. (fig. 1)

PERFORMA TO BE FILLED BY ASKING PATIENT ABOUT THEIR DENTURE EXPERINCE						
NAME:		GENDER: male/female				
EDUCATION LEVEL: II	lliterate	AGE: <50 years				
Н	igh school	>50 years				
G	raduate	TIME OF DENTURE USAGE:				
Q1. DOES YOUR UPPER	DENTURE FEEL LO	OSE?				
NEVER	SOMETIMES	OFTEN				
Q2. DOES YOUR LOWER	R DENTURE FEEL LO	OOSE?				
NEVER	SOMETIMES	OFTEN				
Q3. DO YOU FEEL PAIN	WHILE WEARING Y	OUR UPPER DENTURE?				
NEVER	SOMETIMES	OFTEN				
Q4. DO YOU FEEL PAIN	WHILE WEARING Y	OUR LOWER DENTURE?				
NEVER	SOMETIMES	OFTEN				
Q5. HOW COMFORTABL	LY CAN YOU SPEAK	WITH YOUR UPPER DENTURE?				
COMFORTABLY	FAIR	UNCOMFORTABLY				
Q6. HOW COMFORTABL	LY CAN YOU SPEAK	WITH YOUR LOWER DENTURE?				
COMFORTABLY	FAIR	UNCOMFORTABLY				
Q7. HOW IS YOUR CHEV	WING CAPACITY WI	TH YOUR UPPER DENTURE?				
SATISFACTORY	FAIR	UNSATISFACTORY				
Q8. HOW IS YOUR CHEV	WING CAPACITY WI	TH YOUR LOWER DENTURE?				
SATISFACTORY	FAIR	UNSATISFACTORY				
Q9. HOW DO FEEL ABO	UT LOOK OF YOUR	UPPER DENTURE?				
VERY GOOD	FAIR	POOR				
Q10. HOW DO FEEL ABO	OUT LOOK OF YOUR	LOWER DENTURE?				
VERY GOOD	FAIR	POOR				
Q11. HOW COMFORTAB	BLY CAN YOU CLEAD	N YOUR UPPER DENTURE?				
COMFORTABLY	FAIR	UNCOMFORTABLY				
Q12. HOW COMFORTAB	BLY CAN YOU CLEAD	N YOUR LOWER DENTURE?				
COMFORTABLY	FAIR	UNCOMFORTABLY				
Q13. WOULD YOU EVAI	LUATE YOUR SATIS	FACTION OF DENTURE BY MARKING BETWEEN 1-10?				

Codifying responses:

Never/comfortably/satisfactory/very good - Highly satisfied

Sometimes/fair - Moderately satisfied

Often/ uncomfortably/ unsatisfactory/ poor - Least satisfied.

The entire was collected and analysed using quantitative and qualitative statistical test. Data was entered into Microsoft Excel spreadsheet and then checked for any missing entries. It was analysed using **Statistical Package for Social Sciences (SPSS) version 21**. Responses to various questions were summarized as frequencies and satisfaction score was summarized as mean and standard deviation. Graphs were prepared on Microsoft Excel. Inferential statistics were performed using non-parametric tests, i.e., **Chi-square test, Mann Whitney U test & Kruskal Wallis test. Chi-square** test was used to compare categorical data. **Mann Whitney U test** was used to compare 2 independent means. More than 2 means were compared using Kruskal Wallis test. Post hoc pairwise comparison was done using **Mann Whitney U test**. The level of statistical significance was set at 0.05.

RESULTS:

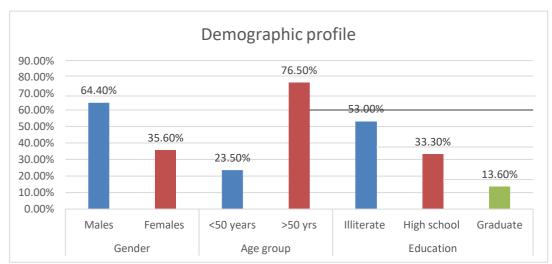
Total of **132 participants** with complete upper and lower denture were examined. Majority (64.4%) participants were male while only 35.6% participants were female. About two-third 101(76.5%) were more than 50 years of age while one-third population 31 (23.5%) were less than 50 years of age. Under education 70 (53.0%) were illiterate, 44 (33.3%) were in high school and 18 (13.6%) were graduate. The **Majority** of the population in this study was made up of **illiterate males over the age of 50 years** (**Table 1 & graph 1**).

Nearly 65.2% of patient highly satisfied in response to looseness (retention) of upper denture and about 62.1% of participants were moderately satisfied in response to looseness of lower denture. Almost same percentage 47% of participants responded highly and moderately satisfied in response to pain (ulcers) while wearing in upper denture and majority participants 43.2% were moderately satisfied responded with pain (ulcers) while wearing lower denture. About 53% participants were highly satisfied with speech with respect to upper denture whereas 54.5% participants were moderately satisfied with speech with respect to lower denture. 51.5% of participants with upper denture and 43.9% participants with lower denture were moderately satisfied in response to chewing capacity. About 58.3% participants in upper denture case and 51.5% participants in lower denture were highly satisfied with look of their denture. Cleaning efficiency/denture hygiene maintenance showed that 66.7% participants with upper denture and 63.6% participants with lower denture were highly satisfied. (Table 2) When we see last question i.e. overall satisfaction score, majority of participants gave either 7 or 8 score. (Table 3)

Table 1: Demographic Distribution of study subjects

Demographic p	profile of study populati	on		
		Frequency	Percent	
Gender	Males	85	64.4%	
	Females	47	35.6%	
Age group	<50 yrs	31	23.5%	
	>50 yrs	101	76.5%	
Education	Illiterate	70	53.0%	
	High school	44	33.3%	
	Graduate	18	13.6%	

Graph 1: Graphical representation of Demographic Distribution of study subjects according to Gender, age group and education level.



Tabl	o 2. Moon	Satisfaction	Score according	a to reconnece	to different	auactions in	the questionnaire	
- i ani	e z: viean	Saustaction	Score accordii	ig to responses	to attierent	aniesmons in	the duestionnaire	

		N	Satisfaction Score		P Value
			Mean	Std. Deviation	
Q1	Never	86	7.9070	1.06967	<0.001, S
	Sometimes	42	7.1429	1.07230	
	Often	4	5.7500	.50000	
Q2	Never	33	8.2424	1.19975	0.001, S
	Sometimes	82	7.5366	1.03274	
	Often	17	6.6471	.93148	
Q3	Never	62	7.9677	1.02378	0.001, S
	Sometimes	61	7.3279	1.20722	
	Often	9	6.8889	.92796	
Q4	Never	45	8.1556	.97597	<0.001, S
	Sometimes	57	7.4912	1.10393	
	Often	30	6.9667	1.15917	
Q 5	Uncomfortably	6	6.5000	.83666	0.001, S
	Fair	56	7.2679	1.05298	

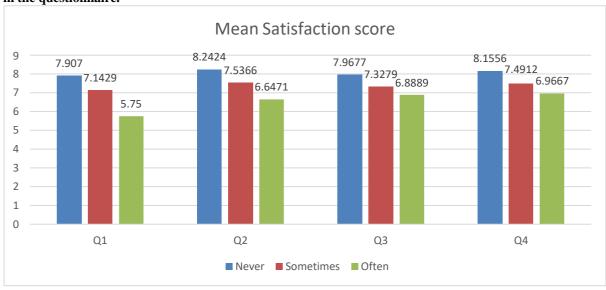
	Comfortably	70	7.9571	1.13490	
Q 6	Uncomfortably	24	7.0417	1.16018	0.008, S
	Fair	72	7.5833	1.04477	
	Comfortably	36	8.0000	1.24212	
Q7	Unsatisfactory	14	6.7143	1.13873	<0.001, S
	Fair	68	7.3676	1.09141	
	Satisfactory	50	8.1600	.99714	
Q8	Unsatisfactory	47	7.0426	1.08262	<0.001, S
	Fair	58	7.7414	1.08515	
	Satisfactory	27	8.2593	1.02254	
Q 9	Poor	4	5.7500	.50000	<0.001, S
	Fair	51	6.9804	1.00976	
	Very good	77	8.1039	.96769	
Q 10	Poor	6	6.0000	1.09545	<0.001, S
	Fair	58	7.2069	1.05562	
	Very good	68	8.0735	.99725	
Q 11	Uncomfortably	4	6.2500	1.25831	<0.001, S
	Fair	40	7.0250	1.04973	
	Comfortably	88	7.9205	1.06373	
Q 12	Uncomfortably	7	6.1429	1.06904	<0.001, S
	Fair	41	7.0488	.99878	
	Comfortably	84	7.9881	1.03544	

(S-Significant)

P value was calculated to be \leq 0.001 which is statically significant (p < 0.05) for all the complaints regarding upper and lower denture irrespective of gender, age and education status of the study subjects. Most common complains among participants of Himachal Pradesh population as follows:

Mastication > Pain > Speech > Retention > Aesthetics > Cleaning. when we see mastication among participants they were moderately satisfied with both maxillary and mandibular denture whereas when we see pain, speech and retention maximum participants were only highly satisfied with maxillary denture as compared to mandibular denture.

 $Graph\ 2: Graphical\ representation\ of\ mean\ satisfaction\ score\ according\ to\ responses\ to\ different\ questions\ in\ the\ questionnaire.$



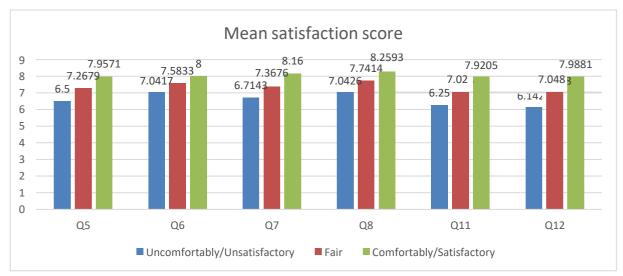




Table 3: Mean Satisfaction Score according to patient's gender, age and education level.

		N	Satisfaction score		P value
			Mean	SD	
Gender	Males	85	7.5647	1.15930	0.562, NS
	Females	47	7.6596	1.16613	
Age group	<50 years	31	7.6129	1.05443	0.971, NS
	>50 yrs.	101	7.5941	1.19313	
Education	Illiterate	70	7.5857	1.05628	0.964, NS
	High school	44	7.6136	1.18549	
	Graduate	18	7.6111	1.50054	

(NS- Non Significant)

No statistically significant difference was found in Satisfaction score according to gender, age group and educational status.

Graph 3: Graphical representation of satisfaction score according to gender of the study participants.

Gender & satisfaction score

45.00%

40.00%

38.80%

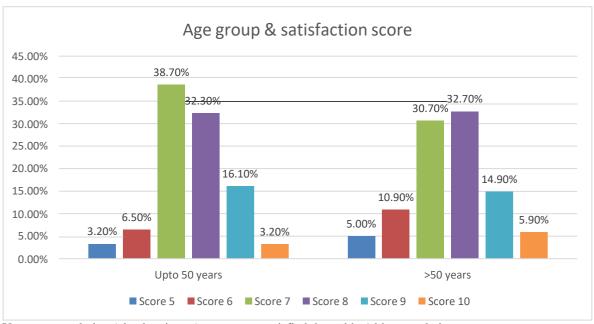
36.20%

30.60%

30.00% 25.00% 21.30% 19.10% 20.00% 17.00% 12.90% 15.00% 10.00% 5.90% 5.90% 5.90% 4.30% 5.00% 2.10% 0.00% Males Females Score 5 Score 6 Score 7 Score 8 Score 9 Score 10

Females (less in no.) were more satisfied than males.

Graph 4: Graphical representation of satisfaction score according to age group of study participants.



Younger population (also less in no.) were more satisfied than older/elder population.

Education & satisfaction score 40.00% 37.10% 34.10% 33.30% 35.00% 31.80% 31.409 30.00% 25.00% 20.00% 7.10% 16.70% **1**6.70% 16.70% 3.60% 15.00% 1.10%9.10% 8.60% 10.00% 6.80% 5.60% 4.50% 4.30% 5.00% .40% 0.00% High school Illiterate Graduation Score 6 ■ Score 7 ■ Score 8 ■ Score 9

Graph 5: Graphical representation of satisfaction score according to education level of study participants.

Illiterate Himachal Pradesh population were more satisfied than high school followed by graduate participants.

DISCUSSION

"Tooth loss is the dental equivalent of mortality." It is the result of oral disease, but it also reflects patient and provides attitudes, the accessibility and availability of care, and the predominate dental treatment philosophies across time. Losing teeth is not a natural part of getting older. (3)

Treatment with complete dentures is still the first choice for tooth replacement in edentulous individuals. Patient satisfaction with complete dentures is important for a patient's overall quality of life. Therefore, it is important to identify factors related to satisfaction. It has been recommended that researchers conduct more studies that use patient satisfaction as the primary outcome measure in treatment evaluation and that more attention needs to be paid to understand which aspects of patient satisfaction indicate successful treatment outcomes. (7)

"TO EVALUATE QUALITY OF DENTURE FROM PATIENT'S FEEDBACK."

Edentulism can substantially affect oral and general health as well as overall quality of life. This study showed that majority of patient were satisfied with their denture regardless of their gender, age, education status meaning

that wearing dentures helps rehabilitate the oral health status for the edentulous people hence, improving the quality of life. (table no. 2)

when we see most satisfied responses majority gave highest score to lowest score as cleaning > aesthetics > retention > speech > pain > mastication.

Patients had the least problems with **appearance and denture hygiene maintenance as** maximum no. of participants were satisfied with both of their denture and this aspect of satisfaction received the highest overall rating but also while patients with complaint regarding **looseness**, **pain** and **speech** were more satisfied with maxillary dentures as compared to mandibular dentures. One unexpected finding was that **chewing capacity** (mastication) was the most difficult issue associated with both the dentures.

Overall, patients were less satisfied with mandibular dentures compared with maxillary dentures in almost all parameters, except for chewing capacity where subjects were equally moderately satisfied with both maxillary and mandibular dentures.

"EVALUATION OF PATIENTS'S OPINION OF THEIR DENTURE"

Majority patient didn't complains looseness of upper denture as compared to lower denture but satisfically significant values were not found which are in agreement with **Diehl et al** in which subject characteristics including age, sex, race, income level, education, marital status, and maxillary and mandibular anatomy were not associated with denture success. ⁽⁵⁾ Also, **Marcus et al in** reported that Mandibular dentures were "loose" more than twice as often as maxillary dentures. ⁽²⁾ Whereas **Seiffert et al** suggest that the patient's personality and relationship with the dentist play a substantial role in overall success, also reported that patient satisfaction was based on an interplay of psychological, biological, anatomic, and constructional factors. ⁽¹⁵⁾ **Soboleva U and Rogovska I** reported lower mean satisfaction scores concerning chewing for maxillary complete dentures, and in regard to stability and comfort for mandibular complete dentures.⁽⁷⁾

In favour to our present study **Marcus et al** in 1996 reported that Respondents had "sore spots" associated with mandibular dentures twice as often as with maxillary dentures also they were "very satisfied" with their maxillary denture as compared with 51% for mandibular dentures. (2) **Parvez K et al** found that Pain was recorded as the most common complaint of these complete denture wearers but no significant relationship could be determined between the patient's gender and type or number of complaints, also reported fewer complaints about the appearance of the dentures from the patients in spite of being the most common complaint otherwise. (2,3) **Brunello et al** who observed no significant patient **gender** relationship with complete denture complaints. Same shown by **Sadr K, Mahboob F, and Rikhtegar E** in 2011 among 60 edentulous patients showed no significant differences between males and females in the number of mucosal injuries. (9)

Ogunrinde T J and Dosumu O O in their study of 82 subjects stated that the most common complaints of the complete denture patients was pain (28%) followed by loose denture (14.6%). This result is similar to the finding of **Smith and Hughes**, (77% pain and 55% loose denture) and **Brunello et al**, (pain 75% and loose denture 59%). They also showed that no patient below the age of 60 complained of loose denture, altered taste or unsatisfactory appearance. Multiple complaints were seen in patients above sixty years of age. (9,10)

New denture is always not satisfactory, at least during its initial period of its wearing. **E Berg**, 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. (16) **Farias-Neto A** in 24 edentulous patients requiring new complete dentures showed that salivary excess may impair comfort and make chewing and speech difficult during the initial period of denture wearing. Speech may also be influenced by tongue positioning necessary to stabilize the lower denture. (17)

Ashok N G and Ganapathy D evaluated 100 patients (50 males and 50 females) of them 44% had been wearing dentures for less than 6 months reported that 49% of patients complained with chewing difficulties and speech difficulties. Bohnenkamp and Garcia, 2007 revealed that the edentulous patients frequently complain on phonetic ability when they start to wear and function with a new mandibular denture, but it was most often the result of a lack of patient adeptness. ⁽¹¹⁾ Also, Bhat V S, Prasad K and Malii P in a survey to assess patient satisfaction after receiving complete denture prostheses in 40 patients found that only 22% of patients were happy with mastication. However, this factor is tissue dependent and motivational factor by the patient plays a vital role in improving masticatory efficiency. ⁽¹⁸⁾

Fenlon M R and Sheriff M showed that the patient rating of **chewing ability** of maxillary dentures improved between first review and three months and declined between three months and two years. Patient rating of **chewing ability** of mandibular dentures improved between first review and three months and further improved between three months and two years. $^{(12)}$

In contrast to our study **Soboleva U 2022** found that women were less satisfied than men with the chewing ability of upper and lower dentures, as well as with their comfort and aesthetics, but one unexpected finding was that chewing was the most difficult issue associated with maxillary dentures. ⁽⁷⁾ **Yamamoto S and Shiga H** suggest that masticatory performance and oral health-related quality of life are significantly improved after treatment and that there is a close relationship between the two. ⁽¹⁹⁾

Awad and Feine (1998), found that patient satisfaction with conventional complete dentures was dependent on the appearance and functionality of the appliance. Younger patients (75%) cared about denture appearance and were more interested in denture base characterisation than older patients, who tended to care less about aesthetics with age, according to a study done by **Matsuda et al.** in 157 edentulous subjects. (20)

"TO EVALUATE PATIENT SATISFACTION LEVEL ABOUT THEIR DENTURE."

Soboleva U in 2022 showed that there were no statistically significant sex differences in any of the specific satisfaction aspects with either maxillary or mandibular complete dentures, while patient comfort was significantly related to chewing, speaking, denture stability, and cleaning. ⁽⁷⁾ **Komagamine et al.**, (2016) men were reported to adapt more rapidly to new dentures than women, also that the age of the patient had no relationship to a decreased ability to adapt to dentures. **Brunello et al** who observed no significant patient gender relationship with complete denture complaints. This suggests that sex does not have a significant influence on post denture delivery complaints in our environment. ⁽⁶⁾

Ogunrinde T J and Dosumu O in their study 82 subjects reported there was no significant relationship between gender and the number of complaints and also no patient below the age of sixty complained of loose denture, altered taste or unsatisfactory appearance. Multiple complaints were seen in patients above sixty years of age. **Pan S et al in 2008 did** randomized clinical trial in 256 participants (114 males and 142 females), females in the CD group rated their general satisfaction and satisfaction with ability to chew and aesthetics significantly lower than did the males. ⁽¹⁰⁾ The sex differences in the CD group remained at 12 months after delivery. **Fiske et al**; stated that Women of menopausal age have been reported to experience more difficulty in adapting to denture than younger age group because of the physical and emotional changes they undergo during and after menopause. ⁽²¹⁾

Celebic et al. found that younger patients wearing dentures for the first time, with short periods of being edentulous, and with better quality maxillary and mandibular denture-bearing areas were more satisfied with the retention of maxillary dentures as compared to mandibular denture and also Patients with a low level of education were significantly more satisfied in general than with a higher level of education. (22) Turker S B, Sener I D and Ozkan Y K in 2008 presented no relationship exists between age and satisfaction, which support the findings of Berg (1984) who observed no significant patient age or gender relationships on denture acceptance. Turker et al. verified that age or gender did not display an association with denture. Muller and Hasse-Sander reported that the abilities of adaptation to new dentures are not evidently age correlated. (23)

On contrary basis **Kajal K et al in 2020** (85 edentulous patient) found that Participants between the age range of 40-79 years with majority being male (54%) greater level of satisfaction noted among 60-69 years male participants. (1) Also, **Soboleva U in 2022** in his study reported that patients over 60 years of age had more difficulties in adapting to a new set of dentures than their younger counterparts. (7) **Viola A P et al in 2012** found that subjects aged 60 years or older were more satisfied with their upper dentures than subjects aged less 60 years. (24)

In favour to present study **Marcus et al** (1996) stated that edentulism was negatively related to both education level and annual income. Fewer than 10% of college-educated were edentulous, compared with more than 50% with a high school education or less, but there were no statistically significant differences on the basis of gender. In contrast to current study **Esan et al.** (2004) stated that the demand for dentures was higher in participants of lower level of education and low socio-economic status. (2)

In a study by **Bhat et al.,** (2014), 93% participants portrayed that they were satisfied with their dentures. ⁽¹⁸⁾ Edentulous elderly people who are well satisfied with their daily lives are also satisfied with their complete dentures (**Yoshida et al.,** 2001). ⁽²⁵⁾

Edentulous individuals must be encouraged to receive an annual oral examination. Denture related soft tissue lesions need evaluation, treatment, and possibly biopsy. Inability to chew can be socially embarrassing and may discourage an individual from eating in public or dining with others, which can have a profound impact on the quality of life. ⁽²⁾

Dentists should be able to assess the quality of a denture in terms of support, retention, stability, occlusion, vertical dimension, and extension of the denture bases. Instructions regarding the daily care and use of dentures are important to the prognosis of these prostheses, but are often overlooked. ⁽²⁶⁾ Such education should be considered a valuable investment for the patient and dental team. Part of such education should encourage patients to remove dentures before retiring at night, or for several hours each day to allow relief of pressure on the underlying soft tissues. ⁽²⁷⁾

Tooth loss often limits a person's ability to eat and speak well, even to the extent of limiting a person's ability to participate in social activities thereby affecting an individual's overall **quality of life**. Although complete dentures (false teeth) cannot be considered as a substitute or natural dentition, they remain to be a staple treatment option for edentulous patients. (1)

Khan and Khan (2015) argued that elderly edentulous participants had improved overall oral health related quality of life 16 months post denture insertion, whereby females had reported better quality of life than their male counterparts. (28)

Treatment with complete dentures is still the first choice for tooth replacement in edentulous individuals. ⁽¹⁷⁾ The correlations between patients' satisfaction with their dentures and "objective" measurements of anatomic conditions, denture quality such as retention and stability, and masticatory performance are in general surprisingly weak and often statistically non-significant **Narhi et al.** (1997). Level of education, self-perception of affective and economic status, and quality of life are all related to patient satisfaction. However, the quality of dentures shows the strongest correlation with patient satisfaction. ⁽²³⁾ Not only the quality of the denture-bearing area but the denture-wearing experience itself seems to be more important in determining patient satisfaction with mandibular CDs. ⁽²²⁾

"TO ASSESS PATIENT PRIORITY DURING DENTURE PROVISION."

With the advances in medicine and increasing awareness a high proportion of elderly population (aged about 65 yrs and above) are more evident in developed countries. The need to find effective and applicable solutions to the problems of elderly people has therefore become a **priority for the improvement of their quality of life.** (3,29)

In the current study female had given higher score to denture satisfaction as compared to male which may be due to the reason that male were higher in no. and female were less therefore no gender wise significant difference could be found but male sometimes face more difficulty in denture adjustment as compared to female which cannot be neglected by our study but according to previous studies female groups were more concerned about aesthetics /look /appearance of their denture and more oftenly have multiple no. of complains as compared to male group which were more concerned for masticatory capacity and also retention of both of their denture.

When we see age groups most of the younger patient gave lesser score than elder patient suggesting that young patient in the region of Himachal Pradesh mostly wearing denture for the first time have more difficulty in adapting to the new dentures as compared to elder population which easily adapts to denture mostly previous denture wearer. But no age groupwise significant difference could be found among the study participants which may also be due to the reason that lesser no. of younger population found in our study as compared to more no. of subjects presenting elder population.

Lastly when see education status in population of Himachal Pradesh most of the people being illiterate subjects gave highest score as compared to high school population and graduates giving same scoring but still no significant difference could be found due to large no. of population (more than 50%) belonging to illiterate group. **Marcus et al** showed that edentulism was negatively related to education level and also Patients with a low level of education were significantly more satisfied in general. ⁽²⁾ Those who have attained higher levels of education are more apt to have greater financial opportunity and to place a higher priority on dental health. ⁽³⁶⁾ Illiterate group of people mostly belonging to low-income groups due doesn't give priority to dental health. Lack of education about the importance of oral health, the need for preventive services, and the consequences of neglect appears to constitute a significant barrier to dental health care. ⁽³⁰⁾

When we see satisfaction score according to gender, age and educational none of the values came to be significant but when we see mean satisfaction score according to responses of participants to different questions/problems associated with denture in the questionnaire all the values came to significant in population of Himachal Pradesh.

POSSIBLE LIMITATIONS

- The main limitation of the current study was the sample size available for consideration. We cannot determine whether the findings of the study will remain the same when a large number of complete denture wearers were evaluated.
- It was not specified whether the dentures had been made by an undergraduate (BDS), postgraduate (MDS), experienced faculty member, or experienced or inexperienced private practitioner.
- No previous dental history regarding periods of edentulism and previous dentures history or denture
 wearing periods was included in our analysis, which might change our result regarding associated
 complaints.

SUMMARY AND CONCLUSION

Edentulism is seen as an obstacle which affects patients' quality of life and nutrition. Traditional complete dentures are still the method of choice. Massive proportion of edentulous people worldwide, especially among the elderly, require rehabilitation. Complete dentures are commonly acknowledged as they deliver the expected aesthetic, allow the patient to speak properly, and provide adequate occlusal support for chewing. Well-made dentures give the patient comfort, adequate function, and a look that will promote social interactions and participation. During the first few days following the insertion of their complete dentures, patients typically require extra care from their dentists.

Before performing a post-insertion check-up, it is important to have a clear comprehension of the components involved in the construction of complete dentures. Without proper knowledge, any attempt to deal with post-

insertion issues might result in the prosthesis being lowered haphazardly, contradicting the purpose of the prosthesis and enhancing patient dissatisfaction as well as the need for additional patient visits.

The present study was taken to investigate the post insertion complications encountered by complete denture patients and the level of satisfaction among them. It is important to identify what specifically determines patient satisfaction with either maxillary or mandibular dentures and to assess whether these determinants differ between the two jaws. Such identification may enhance patient satisfaction and denture acceptance, consequently improving patient well-being and which are considered the main goals of treatment.

One hundred thirty two edentulous people who underwent treatment with full dentures and reported to the Department of Prosthodontics at Shimla HP made up the sample of patients for this research. All patients received a brief explanation of the questionnaire before giving their consent. Data was gathered in line with the specifications of a special questionnaire. Both qualitative and quantitative evaluation was performed on the gathered information.

Thus, according demographic statistics, the majority of the patients in the existing research were males over 50 years and were illiterate. The majority of the participants exhibited issues with mastication, followed by discomfort, speaking, and retention. But as can be seen from the comments, many were happier with the hygiene and appearance of their dentures. In contrast to mandibular dentures, the majority of the populace reported being extremely delighted with their maxillary dentures.

The patient's pleasure is the key to a successful denture delivery. In conclusion, patients were generally happy with their dentures. Patient satisfaction in the Himachal Pradesh population is unaffected by age, gender, or educational background. Eliminating the issues related to complete denture use requires meticulous study based on a thorough grasp of typical and unique tissue reaction as well as the fundamentals of complete denture prosthesis. An essential stage in providing denture treatment is denture adjustment. It is a precise task that need good judgement and computer dexterity to do.

It has been said that a patient can either make or break a dental practice. Although an operator may be pleased with the calibre of the job performed when managing a patient, the degree of patient satisfaction defines the effectiveness of the therapy. As a result, following the completion of therapy, every approach should include routine patient satisfaction assessment. This will contribute to ongoing service quality improvement from healthcare professionals.

BIBLIOGRAPHY

- 1. Kajal K, Mohammad Nezhad M, Sivaramakrishnan G, Bhai K, Khan S. The Level of utilization and Satisfaction of Complete Denture Treatment Provided in Fiji from 2010-2016. Global Journal of Health Science. 2021;14(1):43.
- 2. Marcus A, Auil P, Morgano M, Jones A. Complete edentulism in New England use for elders "T. The Journal of Prosthetic Dentistry. 1996;76(3):260–6.
- 3. Parvez K, Parvez K, Sultan R, Muhammad Aliuddin A. Oral Complaints of Complete Denture Wearing Elderly Patients And Their Relation With Age & Gender. Journal of the Pakistan Dental Association. 2020;29(03):140–3.
- 4. Felton D, Cooper L, Duqum I, Minsley G, Guckes A, Haug S, et al. Evidence-Based Guidelines for the Care and Maintenance of Complete Dentures: A Publication of the American College of Prosthodontists. Journal of Prosthodontics. 2011;20(SUPPL. 1).
- 5. Diehl RL, Foerster U, Sposetti VJ, Dolan TA. Factors associated with successful denture therapy. Journal of Prosthodontics. 1996;5(2):84–90.
- 6. Komagamine Y, Kanazawa M, Sasaki Y, Sato Y, Minakuchi S. Prognoses of new complete dentures from the patient's denture assessment of existing dentures. Clinical Oral Investigations. 2017;21(5):1495–501.
- 7. Soboleva U, Rogovska I. Edentulous Patient Satisfaction with Conventional Complete Dentures. Medicina (Lithuania). 2022;58(3):1–10.
- 8. Kimbonguila A, Matos L, Petit J, Scher J, Nzikou JM. Effect of Physical Treatment on the Physicochemical, Rheological and Functional Properties of Yam Meal of the Cultivar "Ngumvu" From Dioscorea Alata L. of Congo. International Journal of Recent Scientific Research. 2019;10:30693–5.
- 9. Sadr K, Mahboob F, Rikhtegar E. Frequency of Traumatic Ulcerations and Post-insertion Adjustment Recall Visits in Complete Denture Patients in an Iranian Faculty of Dentistry. Journal of dental research, dental clinics, dental prospects. 2011;5(2):46–50.
- 10. Ogunrinde TJ, Dosumu OO. The influence of demographic factors and medical conditions on patients complaints with complete dentures. Annals of Ibadan postgraduate medicine. 2012;10(2):16–21.
- 11. Ashok NG, Ganapathy D. Evaluation of post-operative complaints in complete denture and removable partial denture wearers: A questionnaire based study. Journal of Pharmaceutical Sciences and Research. 2017;9(9):1438–43.
- 12. Fenlon MR, Sherriff M. Investigation of new complete denture quality and patients' satisfaction with and use of dentures after two years. Journal of Dentistry. 2004;32(4):327–33.

- 13. CARLSSON GE, WENNSTRÖM A. Patient factors and complete dentures. Journal of Prosthetic Dentistry. 1967;17(4):322–8.
- 14. Farias-Neto A, Carreiro A da FP. Changes in patient satisfaction and masticatory efficiency during adaptation to new dentures. Compendium of continuing education in dentistry (Jamesburg, NJ: 1995). 2015;36(3).
- 15. Taylor M, Masood M, Mnatzaganian G. Longevity of complete dentures: A systematic review and meta-analysis. Journal of Prosthetic Dentistry. 2021;125(4):611–9.
- 16. Berg E. A 2-year follow-up study of patient satisfaction with new complete dentures. Journal of Dentistry. 1988;16(4):160–5.
- 17. Farias-Neto A, Carreiro A da FP. Changes in patient satisfaction and masticatory efficiency during adaptation to new dentures. Compendium of continuing education in dentistry (Jamesburg, NJ: 1995). 2015;36(3).
- 18. Bhat VS, D KP, Malli P. A survey to assess patient satisfaction after receiving complete denture prostheses in a . B . Shetty memorial institute of dental sciences. 2020;4(2):81–5.
- 19. Yamamoto S, Shiga H. Masticatory performance and oral health-related quality of life before and after complete denture treatment. Journal of Prosthodontic Research. 2018;62(3):370–4.
- 20. Palmer JM. Structural changes for speech improvement in complete upper denture fabrication. The Journal of Prosthetic Dentistry. 1979;41(5):507–10.
- 21. Kawai Y, Muarakami H, Feine JS. Do traditional techniques produce better conventional complete dentures than simplified techniques? A 10-year follow-up of a randomized clinical trial. Journal of Dentistry. 2018;74(April):30–6.
- 22. Čelebić A, Knezović-Zlatarić D, Papić M, Carek V, Baučić I, Stipetić J. Factors Related to Patient Satisfaction With Complete Denture Therapy. Journals of Gerontology Series A Biological Sciences and Medical Sciences. 2003;58(10):948–53.
- 23. Turker SB, Sener ID, Özkan YK. Satisfaction of the complete denture wearers related to various factors. Archives of Gerontology and Geriatrics. 2009;49(2):126–9.
- 24. Viola AP, Takamiya AS, Monteiro DR, Barbosa DB. Oral health-related quality of life and satisfaction before and after treatment with complete dentures in a Dental School in Brazil. Journal of Prosthodontic Research. 2013;57(1):36–41.
- 25. Yoshida M, Sato Y, Akagawa Y, Hiasa K. Correlation between quality of life and denture satisfaction in elderly complete denture wearers. The International journal of prosthodontics. 2001;14(1):77–80.
- 26. Komagamine Y, Kanazawa M, Kaiba Y, Sato Y, Minakuchi S. Reliability and validity of a questionnaire for self-assessment of complete dentures. BMC Oral Health. 2014;14(1):1–7.
- 27. Limpuangthip N, Somkotra T, Arksornnukit M. Impacts of denture retention and stability on oral health-related quality of life, general health, and happiness in elderly thais. Current Gerontology and Geriatrics Research. 2019;2019.
- 28. Ahmad AS. Evaluation Of Post Insertion Problems Of Complete Denture According To The Recent Classification . 2010;8(4):105–14.
- 29. Seenivasan M, Banu F, Inbarajan A, Natarajan P, Natarajan S, Anand Kumar V. The Effect of Complete Dentures on the Quality of Life of Edentulous Patients in the South Indian Population Based on Gender and Systemic Disease. Cureus. 2019
- 30. Sharka R, Abed H, Hector M. Oral health-related quality of life and satisfaction of edentulous patients using conventional complete dentures and implant-retained overdentures: An umbrella systematic review. Gerodontology. 2019;36(3):195–204.