

Assessment of Most Common Problems Among Older Adults Wearing Complete Denture in South Indian Population- A Cross Sectional Study

Abstract

INTRODUCTION: The Ultimate success of new dentures depend to a large extent up on the quality of advice offered by the dentist, sensible advice put over in a clear manner gives confidence to the new denture wearer, ensures that the patients starts off on the right footing and increase patient satisfaction. **MATERIALS & METHODS:** Common problems among older adults wearing complete denture was studied in South Indian population, 200 patients were considered in the study and 100 were of male patients and 100 were of female patients. Questionnaire was prepared based on MCCord JF & Grant AA Classification. **RESULTS:** Statistical analysis was carried out using the Z-test & Chi square test. 40% of the patients were with discomfort problem, 27% of the patients were with looseness problem 56% of the patients were with Adaptability problem. **CONCLUSION:** It was concluded that the males and females have adaptability problem followed by discomfort & looseness problem.

Key Words

Older adults; complete denture; adaptability problem; discomfort & looseness problem

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INTRODUCTION

The ultimate success of new dentures depend to a large extent up on the quality of advice offered by the dentist, sensible advice put over in a clear manner gives confidence to the new denture wearer, ensures that the patients starts off on the right footing and increase patient satisfaction.^[1] Denture insertion represents the culmination of a series of carefully considered and exacting procedures on the part of doctor. It is also the moment eagerly awaited by the patient who has cooperated in both time and effort toward this event. Well-made dentures enable the patient to have comfort, adequate function and an appearance that will further increase the society relationships and participation.^[2] A study shown that losing teeth and having complete dentures made is a stressful event comparable in significance to marriage, Retirement and changing careers.^[3] When

patients visit for post denture insertion check-up, it is important that we should satisfy the patient by proper assessment & correction. Counseling of patient is also the prime factor during recall visits. So many problems we come across after denture delivery, but common amongst it differs from patient to patient. Here in this study we made an effort to find out the commonest problem in male & female patients after one month of complete denture delivery.

MATERIALS & METHODS

General information of the patient was noted and a Questionnaire for assessing the most common problems among older adults wearing complete denture was given to the patients to fill after 30 days of post insertion checkup. Questionnaire was prepared based on McCord JF & Grant AA Classification^[4] and it is translated to local language

Table 1: Discomfort Problems

Questions	Frequency	Males	%	Females	%	Z-value	p-value
1	170	93	54.71	77	45.29	0.0824	1.7370
2	148	83	56.08	65	43.92	2.0921	0.0364*
3	159	80	50.31	79	49.69	0.1106	0.9120
4	55	29	52.73	26	47.27	0.5726	0.5669
5	28	12	42.86	16	57.14	-1.0686	0.2852
6	160	91	56.88	69	43.13	2.4597	0.0139*
7	132	83	62.88	49	37.12	4.1855	0.00001*
8	58	28	48.28	30	51.72	-0.3705	0.7110
9	90	38	42.22	52	57.78	-2.0903	0.0366*
10	48	22	45.83	26	54.17	0.4138	0.4138
11	33	18	54.55	15	45.45	0.4597	0.4597
12	28	12	42.86	16	57.14	0.2852	-1.0686
13	36	16	44.44	20	55.56	-0.9436	0.3454
14	27	13	48.15	14	51.85	-0.2719	0.7857
Total	1112(40%)	618	22.2	494	17.8	5.2630	0.00001*

Table 2: Looseness problems

Questions	Frequency	Males	%	Females	%	Z-value	p-value
1	107	59	55.14	58	54.21	2.1577	0.0309*
2	83	53	63.86	30	36.14	0.1203	0.9042
3	40	13	32.50	27	67.50	-3.1305	0.0017*
4	46	24	52.17	22	47.83	0.4163	0.6772
5	32	19	59.38	13	40.63	1.5000	0.1336
6	10	6	60.00	4	40.00	0.8944	0.3711
Total	318(27%)	174	14.8	144	12.2	2.3807	0.0173*

(Kannada) & asked the patients to answer to the questions by marking as yes/no. According to McCord JF & Grant AA Classification^[4] Questionnaire was divided into 3 types of complaints:

- 1 Discomfort problems
- 2 Looseness problems &
- 3 Adaptability Problem

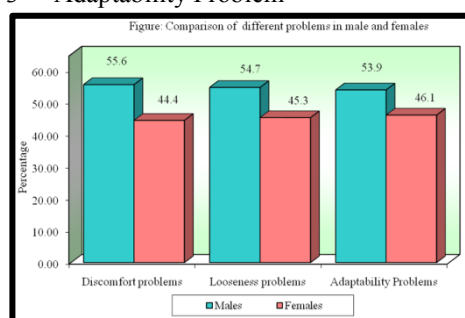


Fig. 1: Graph

Study was conducted at AME's Dental College, Hospital & Research center, Raichur, Karnataka, India and 200 patients from various places of south India were considered in the study, among them 100 were of male patients and 100 were of female patients.

QUESTIONNAIRE

Name

Age

Sex

Address

Answer yes/no to the questions asked

I. Factors resulting in Discomfort

1. Discrete painful areas
2. Pain on insertion & removal
3. Areas painful to pressure
4. Painful to swallow
5. Generalized pain
6. Pain at frenal areas
7. Pain on eating
8. Pain below tongue
9. Pain behind lower lip
10. Pain about periphery of dentures
11. Cheek biting
12. Lip biting
13. Tongue biting
14. Pain at posterior aspect of upper denture

II. Factors resulting in looseness

1. Looseness of denture during mastication
2. Looseness of denture during speaking
3. Looseness at rest (when in mouth)
4. Denture displace in mouth opening
5. Uneven tooth contact Leading to looseness
6. No adaptation to tissue

III. Factors resulting in inadaptability

1. Noise on eating

Table 3: Adaptability Problems

Questions	Frequency	Males	%	Females	%	Z-value	p-value
1	136	73	53.68	53	38.97	2.4326	0.0150*
2	124	83	66.94	41	33.06	5.3354	0.00001*
3	78	39	50.00	39	50.00	0.0000	1.0000
4	160	89	55.63	61	38.13	3.1366	0.0017*
5	120	48	40.00	72	60.00	-3.0984	0.0019*
6	40	13	32.50	27	67.50	-3.1305	0.0017*
7	140	80	57.14	60	42.86	2.3895	0.0169*
Total	788(56%)	425	30.3	363	25.7	3.1203	0.0018*

Table 4: Comparison of different problems in male and females

Questions	Frequency	Males	%	Females	%	Z-value	p-value
Discomfort problems	1112 (40%)	618	22.2	494	17.8	5.2630	0.00001*
Looseness problems	318 (27%)	174	14.8	144	12.2	2.3807	0.0173*
Adaptability Problems	788 (56%)	425	30.3	363	25.7	3.1203	0.0018*

2. Difficulty in eating
3. Cannot open mouth wide enough for food
Blunt teeth/unable to cut
4. Speech problems
5. Gagging reflex
6. satisfied with appearance

INCLUSION CRITERIAS

- 1) Complete denture fabrication(clinical & laboratory) was done by Post Graduate students
- 2) Complete edentulous patients were considered
- 3) Patients aged about 45- 60 years were considered
- 4) Healthy individuals with no any systemic health disorders
- 5) Patients wearing first time denture were considered
- 6) Same material and steps were used to fabricate the dentures

EXCLUSION CRITERIAS

- 1) Single edentulous arch patients were not considered
- 2) Patients age other than 45- 60 years were not considered in the study
- 3) Unhealthy individuals with systemic health disorders were not considered
- 4) Patients already wearing complete dentures were not considered

RESULTS

The statistical analysis was carried out using the Z-test & Chi square test. **Table 1:** 40% of the patients were with discomfort problem. P value shows 0.00001, where there is a significant difference seen between males and females with discomfort problem, around 22.2% male patients were with discomfort problem and 17.8% of females were in discomfort wearing complete denture. **Table 2:** 27% of the patients were with

looseness problem, p values shows 0.0173, where significant difference is seen between both the genders in looseness problem as well, 14.8% of male patients complained of looseness of complete denture, where as 12.2% of female patients shown looseness of complete denture. **Table 3:** 56% of the patients were with adaptability problem p values shows 0.0018, significant difference is seen between both males & females in adaptability problem as well, and 30.3% of male patients complained of adaptability problem with complete denture, where as 25.7% of female patients complained of adaptability problem with complete denture. **Table 4:** It shows the commonest problem among the three problems (Fig. 1). In males and females, most common problem was adaptability problem followed by discomfort and, looseness problem and male patients have more problems than female patients.

DISCUSSION

A variety of problems can arise at the denture delivery stage, including pain, lack of retention, occlusal defects & nausea. Any one of them can dishearten even the most optimistic of patients. Although we make every effort to eliminate sources of pain or dissatisfaction at the stage of denture delivery, it is impossible to be prescient enough to eliminate all possible sources & approximately 50% of our patients have a Complaint later.^[5] This study shows that around 41% of denture wearing patients were not satisfied. Denture treatment should not be undertaken unless the mouth is in a healthy state. In general terms, a denture made for a patient where untreated pathology is present in the mouth cannot be said to be either therapeutically or ethically acceptable.^[6] So the study was conducted only in healthy individuals with no systemic illness.

CONCLUSION

The most common problems among older adults wearing complete denture in South Indian population is adaptability problem followed by discomfort & looseness problem. In males and females most common problem was adaptability problem followed by discomfort & looseness problem. Male patients had more problems than female patients. Patients wearing new complete denture will have a one or the other problems at the early stages after denture delivery, proper diagnoses and correction at the earliest, follow up & counseling makes the denture wearing patient satisfactory.

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