



## RESEARCH ARTICLE

### ASSESSMENT OF PATIENT'S SATISFACTION WITH REMOVABLE DENTURE THERAPY

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#### ABSTRACT

**Purpose:** The purpose of this study was to determine patient satisfaction by evaluating all factors influence removable dentures.

**Materials and Method:** It was a questionnaire based study. Total of 100 patients participated in this study who was already denture wearers. Consent was taken from each participant.

**Results:** After statistical analysis, all factors such as phonetics, pain, mastication, taste and esthetics were rated high by patients.

**Conclusion:** After prosthodontic treatment patients show high level of satisfaction with their prosthesis though showing positive impact of prosthesis on oral health.

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## INTRODUCTION

Oral health is an important part of wellbeing (Yen *et al.*, 2015). Dentures are constructed to restore normal speech, adequate masticatory function, occlusal and facial support and esthetically pleasing precisely comfortable to wear as it is directly related to quality of life (Yen *et al.*, 2015; British Society for the Study of Prosthetic Dentistry, 1996). In 21<sup>st</sup> century there are certain cases of dentistry that are still dependent on conventional mode of treatment that is removable dentures but patients expect it to look and work as good as any other contemporary modality of treatment (Shah and Aras, 2013). Researchers in recent era have begun to focus more on patient self-perception of oral health to improve patient's quality of life (Amal Ali Swelem *et al.*, 2014). This appears more logical, therefore the current study focused on factors of patients based outcome. Success of any dental prosthesis chiefly depends on patient oral hygiene maintenances as plaque accumulation and changes in the

remaining teeth, such as caries, periodontal disease, and lesions of the mucosa, have been associated to failure of RPD use (Cosme *et al.*, 2006; Drake and Beck, 1993; Zlataric *et al.*, 2002). Many authors have suggested that above mention deleterious effects on teeth and oral tissues can be alleviated if a maintenance program is undertaken, including motivation to main good oral hygiene as well as regular dental checkups (Cosme *et al.*, 2006; Bergman *et al.*, 1982; Bergman *et al.*, 1995; Polansky *et al.*, 2003). Masticatory function, esthetics, phonation, avoidance of social events are found to be main factors associated with satisfaction in removable denture wearers (Knezovid-Zlatarid *et al.*, 2008; Kamber-Ćesir *et al.*, 2011). Any information on these influencing factors will help clinicians in construction of removable prosthesis and waste of resources will be reduced (Akeel, 2010). This article thus focuses on the functional and esthetic satisfaction of patients concerning their dental prosthesis. The aim of this cross sectional study was to assess functional, speech, esthetics satisfaction and to estimate the influence of age, gender and economic status on patient satisfaction with removable dentures.

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**MATERIALS AND METHODS**

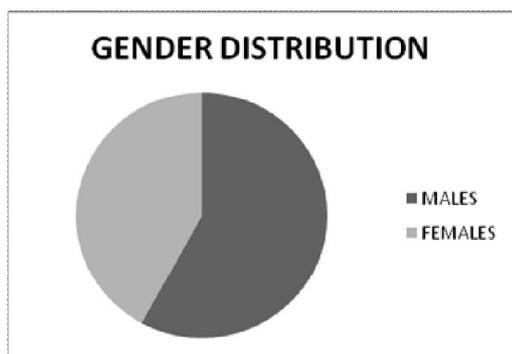
A total of 100 patients with removable partial denture were examined at the Department of Prosthodontics, Altamash institute of dental medicine, University in Pakistan. There were 58 males and 42 females, in the age between 22 and 85 years. Verbal consent was taken from each patient. We used questionnaire, which was devised for a purpose of this study, divided in two parts. The first part was consisted from questions about age, gender, socioeconomic status, employment status. In second part participants were asked questions regarding mastication, esthetics, speech, social avoidance and asked them to answer in either yes or no manner. Inclusion criteria includes old denture wearers, more than twenty years old, good oral hygiene, patients wearing removable partial dentures, complete dentures and cast partial dentures. Patients who were mentally unstable, tempromandibular joint disorder, acute or chronic gingivitis or any oral disease were excluded from this study. Data were analyzed by descriptive statistics by using SPSS 17.

**RESULTS**

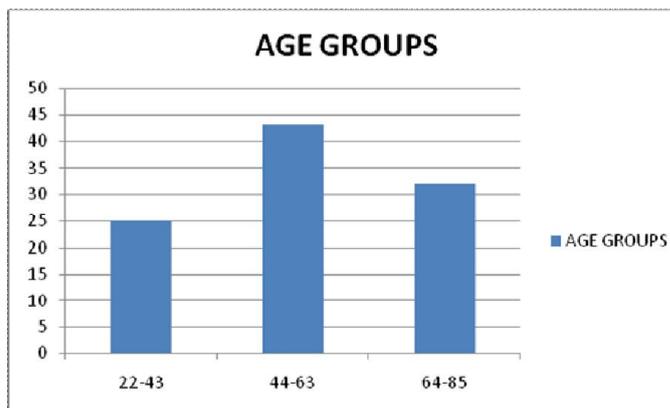
Figure 1 explains gender distribution that is 58% male and 42% female. Figure 2 shows different age groups of patient's maximum number of patient's lies in group 44-63. Table 1 shows different types of removable dental prosthesis wore by patients 62% were wearing removable partial denture, 33% were wearing complete dentures and 5% were wearing cast partial denture. Assessment of speech, esthetics, mastication, social events avoidances and esthetics are shown in Table 2. Regarding problems with speech, patients reported (22% yes and 78% no problem) , food ingestion (21% yes and 79% no problem), appearances (10% yes and 90% no problem), avoidance of social events (8% yes and 92% no problem), improvement in food intake (68% yes and 28% no problem), self-conscious with dentures(72% yes and 28% no problem) and satisfaction with dentures(72% yes and 28% no). Table 3 shows type of removable prosthesis according to socioeconomic status (54%). Satisfaction of dentures according to socioeconomic status (Table 4).

**Table 1. Different types of removable prosthesis**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RPD	62	62.0	62.0	62.0
	CPD	5	5.0	5.0	67.0
	CD	33	33.0	33.0	100.0
	Total	100	100.0	100.0	



**Figure 1. Distribution of patients according to gender**



**Figure 2. Distribution of patients according to age**

**Table 2. Assessment of speech, ingestion and esthetics**

Variables	Frequency	Percentages
Speech impairment		
Yes	22	22.0
No	78	78.0
Impairment in ingestion		
Yes	21	21.0
No	79	79.0
Impairment of appearances		
Yes	10	10.0
No	90	90.0
Avoidance of social events		
Yes	8	8.0
No	92	92.0
Improvement in Food intake		
Yes	68	68.0
No	32	32.0
Self-conscious with denture		
Yes	23	23.0
No	77	77.0
Satisfaction with dentures		
Yes	72	72
No	28	28

**Table 3. Removable Prosthesis type according to socioeconomic status**

		Socioeconomic status		Total
		Low	High	
Prosthesis type	RPD	54	8	62
	CPD	2	3	5
	CD	26	7	33
Total		82	18	100

**Table 4. Satisfaction of prosthesis according to socioeconomic status**

		Satisfaction		Total
		yes	no	
Socioeconomic status	low	57	25	82
	high	15	3	18
Total		72	28	100

**DISCUSSION**

Previous studies have already proved influence of different factors on patient satisfaction with removal denture therapy.

Mastication, esthetics, speech, social avoidance and self-conscious are the following factors listed by different authors (Knezovid-Zlatarid and Čelebid, 2008; Knezovid-Zlatarid *et al.*, 2001; Knezovid-Zlatarid *et al.*, 2003; Abdelsalam Mohamed *et al.*, 2012). The gender distribution of the patients in this study is in agreement with Akeredolu *et al.* study, which suggests males demanding more removable denture than females (Akeredolu *et al.*, 2004). However, this is contrary to the report of other studies who found higher female distribution (Arigbede and Taiwo, 2011). As for speech, results indicate that 78% of patients have no problem with speech after wearing their dentures, no complaints of speech impairment. Same results were found in Abdelsalam *et al.* study held in 2012 (Abdelsalam Mohamed *et al.*, 2012). As for mastication, maximum numbers of patients have shown improvement in food intake and have no impairment in food ingestion with their dentures however, Brunello *et al.* study contraindicate our results 65% patients were not satisfied with masticatory function of their dentures, their denture bases can either be underextended or overextended (Brunello and Mandikos, 1998). Esthetics is the factor which can result in either success or failure of dentures. If it is not cosmetically pleasing it will prevent patients from wearing them (Jeganathan and Payne, 1993). 90% of patients have indicated positively for esthetics and 72% patients don't feel self-conscious to wear their dentures. Same results are indicated by past studies (Abdelsalam Mohamed *et al.*, 2012; Al. Sharafat, 2008; Rizwan *et al.*, 2013). Patients belonging from low socioeconomic status were more satisfied in general with their dentures then patients from high socioeconomic status it may be because patients with lower socioeconomic status have lower level of expectations. This is accordance with other studies (Stipeti *et al.*, 2002; Knezovi *et al.*, 2001). Our results indicate that ninety five percent patients with low socioeconomic status were wearing removable dental prosthesis and only two patients were wearing cast partial denture that belong to high socioeconomic status. Past studies have shown that most removable dentures wearers are completely satisfied with their dental prosthesis (Cosme *et al.*, 2006; Zlataric *et al.*, 2002; Frank *et al.*, 1998; Frank *et al.*, 2000). Same results are found in our study, 72% patients have marked their acceptance level as "yes", which is almost same as Cosmo *et al.* study which shows 74% satisfaction of patients with their dentures (Cosme *et al.*, 2006). The results of this study pointed out that the ratings of patients' assessments were surprisingly high. Almost all patients rated all factors satisfactory related to removable dentures.

## Conclusion

In this study, oral rehabilitation with removable dental prosthesis was considered satisfactory after several years of use by most patients. Further studies should be done on removable denture acceptance with larger sample size and in different settings to increase external validity.

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