

Association Between Depression and Dissatisfaction with Complete Dentures

AMNA MASOOD¹, MUHAMMAD SHAKEEL AKRAM KHAWAJA², NAFEEESA ABDULLAH³, NOOR TARIM FAHIM⁴

¹Senior Lecturer, Incharge Prosthodontics Dept. Abbottabad International Medical Institute, Pakistan

²Senior Lecturer - Dept of Science of Dental Materials, Abbottabad International Medical Institute, Pakistan

³University Medical and Dental College

⁴Frontier Medical and Dental College

Correspondence to: Amna Masood, Email: amnamasood84@gmail.com, Cell: +92 3364039976

ABSTRACT

Objective: The aim of this study was to find out the role of depression in complete denture dissatisfaction and to determine frequencies of depression among the satisfied and dissatisfied patients.

Study design: A cross sectional survey was carried out at Department of Prosthodontics, De'Montmorency College of Dentistry, Punjab Dental Hospital. The sample size was 80 edentulous patients having adequate maxillary and mandibular ridges.

Methodology: The patients selected would be wearing complete dentures for the first time. All dentures were carefully designed. A socio-demographic form and depression rating questionnaire was filled by every participant involved in the study. After six months, satisfaction or dissatisfaction with the provided complete denture set was assessed through a separate questionnaire. The patients' opinion concerning satisfaction with their dentures and depression was recorded and statistical analysis done. The results showed that 36.25% depressed versus 63.75% non-depressed. 28.75% were dissatisfied versus 71.25% satisfied.

Conclusion: It was concluded that depression played a significant role in decreasing the satisfaction rating in first time denture wearers.

Keywords: Depression, dissatisfaction, complete dentures,

INTRODUCTION

There is a rise on a global scale in the population of elderly people¹⁻³. This can be credited to improvement in the quality of life and decline in mortality rates⁶. In this way, the number of people with edentulous arches is increasing^{1,7-10}. Tooth loss as being Edentulous has a profound impact on lives of people¹¹. It causes adverse esthetics, psychosomatic and emotional reaction¹². Oral rehabilitation with conventional complete denture therapy depends on multiple factors that contributes to increase in esthetics appearance, improvement in speech and helps in mastication^{1,5}. Acceptance and ultimate satisfaction to complete dentures treatment is generally related to biological, technical, socio-demographic aspects¹, previous denture experience¹⁶ as well as psychological well-being^{14,17} of patient^{5,12,17-21}. Researchers have indicated that dissatisfaction is quite common after management of edentulous patients with complete dentures. In previous studies 25% of all denture wearers were dissatisfied. The reason being either positive or negative prognostic indicators that lead to satisfaction or dis-satisfaction with complete dentures^{13,18}. Among psychological factors, depression has a severe effect on quality of life, learning, adaptability and acceptability of complete dentures^{1-3,5,9,13,23,24}. It may come from emotional reaction to tooth loss which is complex and has multifaceted impact^{13, 21,25-27}. These are restriction of daily activity, change of perceived self image, low self esteem, aggravated withdrawal and social isolation^{14,28,29}.

According to the World Health Organization, depression is the fourth leading cause of global illness burden.¹⁵ It was expected to overtake Ischemic Heart Disease as the leading cause of disability and early mortality worldwide by 2020. (WHO 2005)^{7,30}

METHODOLOGY

Patients selected were in age group of 55-75 years (either gender), first time denture wearers and their follow-up was done after six months. Patients with road traffic accidents, acute intra-oral lesions, Cancer patients and physically or mentally handicapped patients were not included in the study. The patients were asked to answer two questionnaires and one demographic form. Informed consent was provided.

The first questionnaire used for depression evaluation was a shorter version of Geriatric Depression Scale, GDS¹⁵ (Brink et al., 1982; Yesavage et al., 1983) Annexure I. All the participants

included in the study at the time of clinical examination i.e., before giving prosthesis were rated for depression.

A base score was determined from the 14 questions having a "yes" or "no" answer option. Seven or more Yes items indicated presence of depression. This scale was used because of its non complex nature, easy understanding and interpretation. It covered general and all forms of depression.

Complete dentures were fabricated following American standards for conventional complete denture and inserted. Only those patients were selected to take part in the study whose dentures were technically satisfactory in terms of design, vertical & horizontal components of jaw relationship, occlusion, border extension, retention, stability and quality of oral health.

After six months of denture delivery, patients were recalled and a Patient Denture Satisfaction questionnaire was used to measure patients' satisfaction with their dentures. Patients were asked to score their acceptance with their dentures out of ten Yes/No items relating to general satisfaction.

RESULTS

At the sixth month after inserting/ delivery of a set of complete dentures, every patient was evaluated for satisfaction or dissatisfaction with their dental prosthesis. Among 80 patients, after analysis of data collected for the frequencies of dissatisfied and satisfied patients were 28.75% (23) 16 females, 7 males and 71.25% (57) 29 females, 28 males respectively.

FEATURES RELATED TO DISSATISFACTION WITH COMPLETE DENTURES				
	YES	FREQ %	NO	FREQ %
UNCOMFORTABLE	20	25	60	75
UNSTABLE/ NON-RETENTIVE	17	21.25	63	78
UNABLE TO CHEW	23	28.75	57	71.25
SPEECH PROBLEMS	11	13.75	69	86.25
TASTE PROBLEMS	11	13.25	69	86.25
UNESTHETIC	18	22.5	62	77.5
PAIN	22	27.5	58	72.5
NO SOCIAL INTERACTION	16	20	64	80
DISSATISFIED WITH COMPLETE DENTURES - 23				
SATISFIED WITH COMPLETE DENTURES - 57				

SATISFACTION VERSUS DISSATISFACTION RECORDS				
	Freq	Percent	Valid	
			Percent	Cumulative Percent
d	18	22.5	22.5	22.5
D	9	6.3	6.3	28.8
s	46	57.5	57.5	86.3
S	11	13.8	13.8	100.0
Total	80	100.0	100.0	

"d" depressed and dissatisfied "D" not depressed and dissatisfied
"s" satisfied and not depressed "S" depressed and satisfied

DISCUSSION

Researchers have given five factors for patient denture dissatisfaction. These are poor denture quality (technical error), medical problems (chronic illness), emotional reactions (psychological well being), social and economical issues.^{8,5,11,25}

It is quite unfortunate that attention is given for every organ loss but not to the edentulous state.

Edentulous alveolar ridges were mostly rehabilitated with a set of complete denture prosthesis but their illness (emotional upset from total tooth loss) was not managed^{13,22}. At the same time, because they are unable to correctly articulate their reaction to tooth loss, people experience a wide range of emotions.²⁵⁻²⁸ Many individuals in this study had substantial responses in terms of daily activity limitation, change in perceived self-image, withdrawal and aggravated social isolation^{5,8,26}. These are signs of psychological, social and personality disorders. Moreover, these reactions also confirm presence of depression. Those patients with already psychological issues decreases prognostic success out come²²

These emotional reactions reinforced the negative effect of perceived denture quality, self image, shyness from mingling and laughing in public, any pain associated with the lower complete denture, chewing and speaking difficulties^{23,24}. Thus, patient perception about denture appearance and satisfaction is influenced by emotional reaction to tooth loss. This effectively underlined the fact that total tooth loss had a substantial social impact on an individual's daily life and quality of life.

According to the data collected and results using SPSS statistical analysis 17 versions there is a good percentage (26.25%) of patients who are depressed as well as dissatisfied. Therefore, results are in accordance with previous study by M.T.John¹⁵. The frequencies of patients who are depressed as well as dissatisfied with complete denture are 22.5% and 30% respectively.

It is claimed by Haken bilhan et al⁹, that the quality of the prosthetic treatment and satisfaction with it also affects oral health, and then oral health is related to quality of life. Thus it indicates that denture satisfaction and oral-health-related quality of life have a link.. Therefore, it can be concluded that depression can influences denture satisfaction and thus, oral health related quality of life¹⁴.

Depressed people may perceive effective Prosthodontic treatments as less useful in general. Though this and some other studies claimed that psychological problems, especially personality factors such as neuroticism and depression affect denture satisfaction and related outcomes, such as oral-health-related quality of life.^{24,25}

Bolender et al¹ studied the impact of patient personality on full denture satisfaction in 402 patients and discovered a strong link between high neuroticism scores and denture dissatisfaction. Fenlon et al also found significant associations between Neuroticism and satisfaction with new dentures. There is a cross-sectional survey about association of depression and denture

satisfaction in the general population of older adults showing positive results.²⁵

A comparison with other studies showed of 16% of patients consistently complained about their dentures. Statistical analysis showed that personality factors especially Neuroticism had a significant relationship with denture satisfaction.²⁴ In the study conducted by M.T. John et al it was concluded that for each unit increase on the 15-point depression scale, the probability of denture dissatisfaction increased by 24%.¹⁵ It has been suggested that advanced age in the elderly (over 60 years) is a risk factor for depression. When the aforesaid confounding factors were addressed concurrently in a multiple regression analysis, the connection between age and depressed symptoms was reversed. When characteristics related with both increased age and depression symptoms were included, the oldest people had less depressed symptoms. The uncontrolled link between age and depression symptoms might possibly be addressed because many of these factors can be avoided (such as lower income, physical handicap, and social support).²⁵

CONCLUSION

It was concluded that depression represents a co morbid condition that influence's patient's adaptability with dentures. It's important to remember that edentulism treatment should not be limited to technical elements of denture manufacture alone, but should also include psychological compatibility. Recurrent screening may be most productive in patients with a history of depression, panic disorder or generalized anxiety or chronic pain.

The dentist must understand how to deal with psychological issues associated with dental problems of their patients. This is not to be interpreted that dentist should substitute for psychiatrist, but rather he should counsel the patient and when necessary refer them for psychiatric consultation¹⁸

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