

# The Satisfaction of Patient with Respect to the Aesthetic and Phonetic of Removable Partial Denture Therapy for Iraqi Patient

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## Abstract

**Background:** The purpose of the dental treatment is getting the satisfaction of patient, in addition to reestablish and improve oral health and functions. Negative effect on aesthetic and speech can produced from losing of teeth, so; substituting of losing teeth with suitable prostheses was mandatory for maintenance of oral health.

**Method:** The patients participated in this study were (160) with aRPD, sixty males and one hundred females, age range (30-60) years. After construction of the prosthesis, then ask the patients questions about aesthetic and phonetic after placement of RPD, and the satisfaction of patient was evaluated.

**Conclusion:** From the point of phonetic and esthetic of the denture, largest percentage of the female were very satisfy compared with the male. Non-significant differences between the age groups in respect of esthetic, while about the phonetic, the largest percentage of the younger patient was very satisfy compared with the older patient. The employed patient have largest percentage of satisfaction to the esthetic of the denture, while the non-employed patient have largest percentage of satisfaction to the phonetic of the denture .

**Keywords:** Satisfaction of patient, esthetic, phonetic, removable partial denture, therapy, employment.

## Introduction

What is the purpose from the dental treatment? The purpose of the dental treatment is getting the satisfaction of patient, in addition to reestablish and improve oral health and functions.<sup>1</sup> Negative effect on aesthetic and speech can produced from losing of teeth, so; substituting of losing teeth with suitable prostheses was mandatory for maintenance of oral health.<sup>2</sup> Loss of teeth, which may be due to trauma, dental diseases, pathology, or otherwise not only alters the psychological

thought of the patients but also disturbs the esthetics, phonetics, and functional occlusion<sup>3</sup>, Knezović *et al* (2001,2003,2008) was found that the satisfaction of patient affected by various factors such as: losing teeth numbers, aesthetics, retention, phonetic and oral hygiene habits.<sup>4-6</sup> The satisfaction of patient was correlated to aesthetic and phonetic of dentures in some patient, while mastication is more important in the other patients.<sup>7-10</sup> Phonetic and aesthetics value are extremely important factors which affect the satisfaction of patient level with their RPD, in certain patients, comfort and the ability to masticate were primarily related to the satisfaction of patients, while in the other retention and aesthetics are more important.<sup>11</sup> Also the satisfaction of removable prosthesis can be effected by mental attitude, patients personality, past partial denture experience.<sup>12-14</sup> Whereas the dissatisfaction of removable prosthesis can be effected by deposit of plaque, teeth caries, denture stomatitis and periodontal infection of teeth.<sup>15-18</sup> Furthermore, facial

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appearance and personal communication for many people with others can be affected by aesthetic problem of the RPD.<sup>19,20</sup> The RPD has many advantages such as it was reversible treatment, the oral hygiene can be maintained easily, inexpensive, and it is consider non-invasive treatment line, on the other hand; several speech and aesthetic issues problems was associated with it.<sup>21,22</sup> So, the aim of this paperis to examine the relation between the level of satisfaction of RPD associated to phonetic and aesthetic of patients who looking for treatment at the Prosthodontics Department in the Collage of Dentistry in University of Babylon in Iraq and attempt to find its correlations with employment and because there are no available studies (to our knowledge) that have investigated the satisfaction of patient among subjects in Babylon region, this would be of valuable information to oral health planners for proposing strategies helping in the development of dental health care management in Iraq, as well as with gender and age.

### Materials and Method

**Study Sample:** The sample included the patients who seeking for construct a new definite RPD treatment at the Prosthodontics Department in the Collage of Dentistry in University of Babylon in Iraq. Inclusion criteria the patients who have good oral and general health, without temporomandibular dysfunction syndrome, and physically handicapped patients should excluded and those who were incapable to take their own decisions about asked question that is related to the denture. After explaining the procedure steps and the aim of the study to all participant patients and allowing them to make their decision about participation and answer all the questions, we obtain the written consent with signature from them, the general information were taken from patient about name, age and gender. After construction of the prosthesis, we ask the patients questions about aesthetic and phonetic, and the satisfaction of patient was evaluated by using scale range from 1 to 5, (scale 1 mean unsatisfied, 2 satisfy, 3 good, 4 very good, 5 excellent).

**Sample Size:** The sample size at about (160) patients with a RPD, sixty male and one hunderd female, age range (30-60) years. The study period (October 2017 to March 2018). Subjects who took part in this study were divided into two age groups. The first age group include the patients who younger than 40 years, the second age group include the patients who are aged from 41 to 60 years.

collected and analyze by Statistical Package for Social Science: Software, v. 21.0 (IBM Corp., Armonk, USA) Analysis of Interval Pearson's R Ordinal by Ordinal Spearman Correlation N of valid Cases, esthetic and phonetic for both sex and compared between them with the criterion level for statistical significance was set at ( $p < 0.05$ ).

### Result

About the esthetic, table (1) show the relation between gender and esthetic, the largest percentage of the female were very satisfy (55%) with the esthetic of her denture compared with the male patients who have (16.7%), and the differences between the gender was significant ( $p < 0.05$ ). Among age groups, the largest percentage was for the first group (younger than 40 years) about (54.5%) was very satisfy compared with the second group (older than 40 years) about (33.3%) and the least percentage was recorded<sup>3</sup> for the second group about (4.8%) was unsatisfied (tab2), also the differences between the age groups was non-significant ( $p > 0.05$ ).

The correlation between employment and esthetic, in table (3) it obvious that the largest percentage recorded in the employed patient (52.6% and 47.4%) were satisfied and very satisfied respectively compared with the non-employed patient who have (15.4% and 30.8%) were satisfied and very satisfied respectively.

About the phonetic, table (4) shows the relation between gender and phonetic, we see that the largest percentage recorded for the female patient (75%) was very satisfied compared with the male patients who have (41.7%) were very satisfied, there is no unaccepted patient about phonetic, and the differences between the gender was significant ( $p < 0.05$ ). Among age groups, the largest percentage was for the first group (younger than 40 years) about (81.8%) was very satisfy compared with the second group (older than 40 years) about (52.4%) (tab5).

Table(6) shows the relation between employment and phonetic, it obvious that the largest percentage recorded in the non-employed patient (69.2%) were very satisfied compared with the employed patient who have (57.9%).

**Table 1. The relation between gender and esthetic**

Gender	Severely dissatisfied (%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Severely satisfied (%)
Male(60)	0	8.3	25	50	16.7
Female(100)	0	5	10	30	55
Mean= 4.13, SE =0.97, P-Value Less than0.05					

**Table 2. Relation between age and esthetic**

Ages	Severely dissatisfied(%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Severely satisfied (%)
Less than40(66)	0	9.1	18.2	18.2	54.5
More than40(94)	0	4.8	14.3	47.6	33.3
Note: Mean= 4.53, SE =0.671, P-Value more than0.05					

**Table 3. Relation between employment and esthetic**

Employment	Severely dissatisfied(%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Severely satisfied (%)
Employee	0	0	0	52.6	47.4
Non-employee	0	15.4	38.5	15.4	30.8
Note: p-value Less than0.05					

**Table 4. Relation between gender and phonetic:**

Gender	Severely dissatisfied(%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Severely satisfied (%)
Male(60)	0	0	25	33.3	41.7
Female(100)	0	0	0	25	75
Note: p-value less than0.05					

**Table 5. Relation between age and phonetic**

Ages	Severely dissatisfied(%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Severely satisfied (%)
Less than 40(66)	0	0	0	18.2	81.8
More than 40(94)	0	0	14.3	33.3	52.4
Note: P-value more than 0.05					

**Table 6. Relation between employment and phonetic**

Employment	Severely dissatisfied(%)	Dissatisfied (%)	Neutral (%)	Satisfied(%)	Severely satisfied(%)
Employee (71)	0	0	5.3	36.8	57.9
Non-employee(89)	0	0	15.4	15.4	69.2
Note: p-value more than0.05					

## Discussion

The patients should be mentally and physically get ready to accept a treatment with RPDs (RPD) because the rehabilitation of patients with denture was considered a continuous procedure and requires awareness to the specific requirements of the patients.<sup>23,24</sup>

In this study the largest percentage of the female in Iraq were very satisfy with the respect of phonetic and esthetic of their denture compared with the male patients and the differences between the gender was significant ( $p < 0.05$ ), and this may be due to the number of female in this study was larger than male, and this was agree with Baran *et al.*<sup>25</sup> and Zlataric *et al.*<sup>26</sup> who reported that the satisfaction of patient with RPDs among females was more than males. On the other hand, Singh *et al.*<sup>27</sup> evaluated RPDs wearers in India and established that male were more satisfied than females with regard to chewing, esthetics, and phonetic, also Kruskal-Wallis test exposed that the difference between sex was not significant ( $p > 0.05$ ), also Zlataric *et al.*<sup>[28]</sup> established that generally, the difference between gender was not significant ( $p > 0.05$ ) with regard to the patient satisfaction level with their RPD, aesthetics, phonetic, etc.

Among age groups, the largest percentage was for the first group (younger than 40 years) was very satisfy, and the differences between the age groups was non-significant ( $p > 0.05$ ) and this may be due to a common supposition that old age patients need longer time to adapt to RPD and so the satisfaction of patient will be affected, and this was agree with de Siqueira *et al.*<sup>29</sup> and Zlataric *et al.*<sup>30</sup> who established that the differences between the age groups was non-significant ( $p > 0.05$ ), while Frank *et al.*<sup>12</sup> established that young patients are less satisfied with their RPD, and Singh *et al.* established that there was a positive relationship between the satisfaction of patient from their RPDs and the age<sup>27</sup>, in addition, the study of Wakabayashi *et al.*<sup>31</sup> exposed that the satisfaction of patient with RPDs was influenced by the age, because younger patients were more dissatisfied with the denture aesthetics.

The relation between employment and esthetic, the largest percentage recorded in the employed patient were satisfied and very satisfied compared with the non-employed patients, the explanation may be due to the fact that most of employee patient was educated and so can judge and give their opinion about esthetic of the CD, and there is no study correlate the satisfaction rate with employment to compare with it.

The relation between the phonetic and age, the largest percentage of the younger patient was very satisfy with phonetic compared with the older patient and this may be related to the fact that older patients need longer to adapt to dentures. This result was agree with Knezovic-Zlataric<sup>32</sup> who found that the patients below 60 years are more satisfied with their RPD generally, and disagree with Akeel<sup>33</sup> who noted that there was no significant relation between the satisfaction of patient with RPDs and age, Weinstein *et al.*<sup>34</sup> who believe that the age was not a significant predictor of the RPD success, and also Al-Jammali ZM *et al.*<sup>35</sup> who found that there was no significant relation of age with satisfaction of patient.

The relation between employment and phonetic, the largest percentage of non-employed patient were very satisfied compared with the employed patient, and the explanation to that was that most of employee patient was educated as we say and the educated patient gave high grade to the phonetic specially people who work in the teaching profession, and this result was disagree with a Turkish study<sup>36</sup> and two Brazilian study<sup>37,38</sup> studies which did not discover any differences between educational level groups concerning the satisfaction of patient with RPDs.

## Conclusion

In summary, this paper argued that from the point of phonetic and esthetic of the denture, largest percentage of the female were very satisfy compared with the male. About the age, non-significant differences between the age groups in respect of esthetic, while about the phonetic, the largest percentage of the younger patient was very satisfy compared with the older patient. The employed patient have largest percentage of satisfaction to the esthetic of the denture, while the non-employed patient have largest percentage of satisfaction to the phonetic of the denture.

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**Ethical Clearance:** The Scientific Committee of the Department of Prosthodontics, Faculty of Dentistry, University of Babylon, Iraq are approved to perform this study.

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