

Psychosocial profile of patient with missing teeth and refuses treatment

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ABSTRACT

This study aimed to assess the psychosocial and medical factors that are related to refusal of prosthetic replacement, as well as to give a treatment for such problem. Also the number and distribution of missing teeth in partially edentulous individuals according to Kennedy classification was evaluated, as well as to assess the prevalence of Kennedy classification in partially edentulous patients in rural areas.

The study was conducted in Al-Humaidat village that is located at the Tigris river about 25 Km to the northern west of Mosul City. Six hundred and twenty three individuals aged 4-85 years were selected randomly from houses and schools (275 females and 356 males). Clinical examinations were carried out using dental probe, mirror and dental chair. The results were calculated according to special chart depending on Crown-Crisp Experimental Indexes.

The results of this study showed that the incidence of tooth loss increases with age group between 26-35 years. Class III Kennedy classification recorded higher percentage (57.14%) compared with Class II, IV and I. It was shown that 63% of patients refused the replacement of their missing teeth, 72.86% of which refused replacement due to psychological reactions.

The anxiety score showed a low percentage (28.09%) in comparison with other scores of psychological reactions. Percentage of smoking tobacco was not more than 19.26% of total samples.

Key Words: Psychology, missing teeth, Kennedy classification.

الخلاصة

تهدف هذه الدراسة إلى تقييم العوامل النفسية والاجتماعية والطبية المتعلقة برفض تعويض الأسنان، وإعطاء المعالجات لهذه المشاكل. كذلك تم تقييم عدد وتوزيع الأسنان المفقودة للأشخاص الفاقدي أسنانهم جزئياً وفق تصنيف "كندي"، بالإضافة إلى تحديد توزيع تصنيف "كندي" لفاقدي أسنانهم جزئياً في المناطق الريفية.

أجريت هذه الدراسة في قرية حميدات التي تقع على نهر دجلة حوالي ٢٥ كم شمال غرب مدينة الموصل. تم فحص ٦٢٣ شخصاً تتراوح أعمارهم من ٤-٨٥ سنة اختيروا عشوائياً من دور ومدارس القرية وبواقع ٢٧٥ من الإناث و ٣٥٦ من الذكور. تم إجراء الفحص السريري باستعمال مرآة ومسبر الفم على كرسي جهاز الأسنان. تم احتساب النتائج استناداً إلى جدول خاص يعتمد على معامل "كراون كريسب" التجريبي.

أظهرت النتائج أن حدوث فقدان الأسنان يزداد مع تقدم العمر بين ٢٦ - ٣٥ عاماً. سجلت الدرجة الثالثة من تصنيف "كندي" أعلى نسبة (٥٧.١٤%) مقارنة مع الدرجات الثانية والرابعة والأولى، كما أظهرت الدراسة رفض ٦٣% من الأشخاص لتعويض أسنانهم المفقودة وكان سبب رفض ٧٢.٨٦% من هؤلاء لأسباب نفسية.

أظهر قياس الانفعال أوطاً نسبة (٢٨.٠٩%) مقارنة مع القياسات الأخرى من رد الفعل النفسي. وشكلت نسبة المدخنين ١٩.٢٦% فقط من عينة البحث.

INTRODUCTION

Dental anxiety is common, and is a notable factor in the avoidance of dental care.⁽¹⁾ The prosthetic treatment of the edentate patient will be more and more difficult for different reasons.⁽²⁾ Although overall here has been a steady improvement in dental health attitudes, adult from disadvantaged household are still lagging behind.⁽³⁾ Phobic reactions can often be a significant health problem for fearful dental patients especially who have an elevated general psychological distress.⁽⁴⁾

The impact that tooth loss can have on people and their lives should not be underestimated, so the emotional effects of teeth loss are to be established.⁽⁵⁾ Tooth loss significantly more impaired disabled and handicapped.^(6, 7) It has a profound impact on the lives of some people,⁽⁷⁾ were more likely you feel less confident about themselves; more likely to feel inhibited in carrying out everyday activities and less able to accept the inevitable change in facial shape which occurs following the loss of teeth.⁽⁵⁾ It also occurs even in those who are apparently coping well with denture.⁽⁷⁾

Iraqi edentulous patients don't give priority to dental health, and this is often due to financial difficulties that makes the patient pays attention to other living requirements and not health state. However, poor dental education also plays significant role.^(8, 9)

Psychological causes of rejecting replacement of teeth loss by complete denture include the feeling that complete dentures are not more advantageous than the present condition.⁽⁹⁾

The interpersonal relationship between the patient and his dentist, which is most complex, may contain mountable barriers if we, as dentists, don't understand why the patient refuses the treatment; dentist's authority represents one of these important barriers.⁽¹⁰⁾ These barriers of refusal must be broken slowly.

The emotional factors and patient's attitude toward wearing complete denture, as well as the dentist's approach, play significant roles on denture acceptance.⁽⁸⁾

The aims of this study are planned to assess the psychological and medical factors that are related to refusal of prosthetic

replacement, as well as to assess the prevalence of Kennedy classification in partially edentulous patients, and give a treatment for such problem in rural area (Al-Humaidat).

MATERIALS AND METHODS

The study was conducted in Al-Humaidat village, which is located at the Tigris river about 25 Km to the northern west from Mosul City. Six hundred twenty three individuals (275 females and 356 males) aged 4–85 years were selected randomly from school in addition to individuals in their houses, and referred to the clinic which was established in the school. The four years and older individuals were included in this research because some prosthodontic treatments such as space maintainers may be indicated in such age range.

Clinical examinations were carried out using dental probe, mirror and dental chair. An information relevant to this study was recorded by using special survey chart prepared for this study including dental and medical history, extra- and intra-oral examination, cariogenic snacks containing non-milk extrinsic sugars (NMES) and smoking habits.

The psychoneurotic profile of the sample was studied according to the answers of the individuals depending on Crown-Crisp Experimental Indexes (CC-EI)⁽⁸⁾ on six scales; namely, feature of anxiety, phobia, obsession symptoms, psychosomatic, depressive and hysterical phenomena.

RESULTS AND DISCUSSION

A total of 623 individuals from Al-Humaidat village were examined; 56.18% males and 43.82% females (Figure 1). The population sample was divided into eight age groups for both sexes (Figures 2, 3).

The results in Table (1) showed the age groups distribution of whole samples, which shows clearly that males had more missing teeth than females. This is because females are more concerned with their teeth,⁽¹¹⁾ esthetic, oral hygiene and the extent of periodontal disease.^(12, 13)

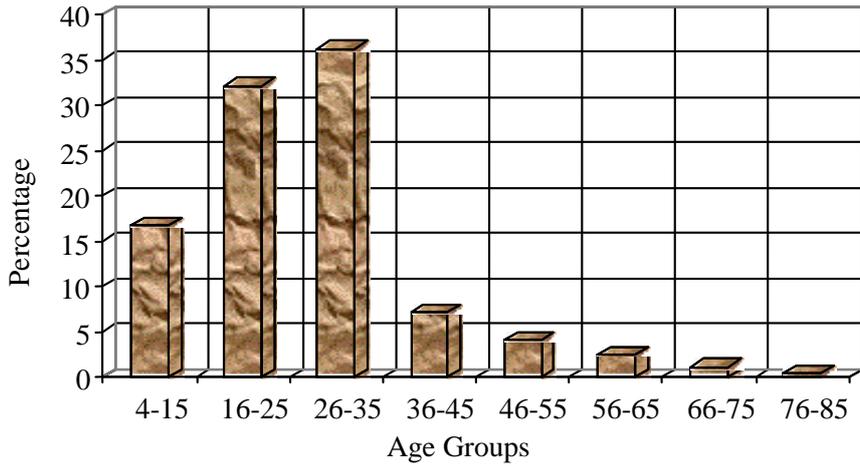


Figure (1): Percentage of samples in different age groups

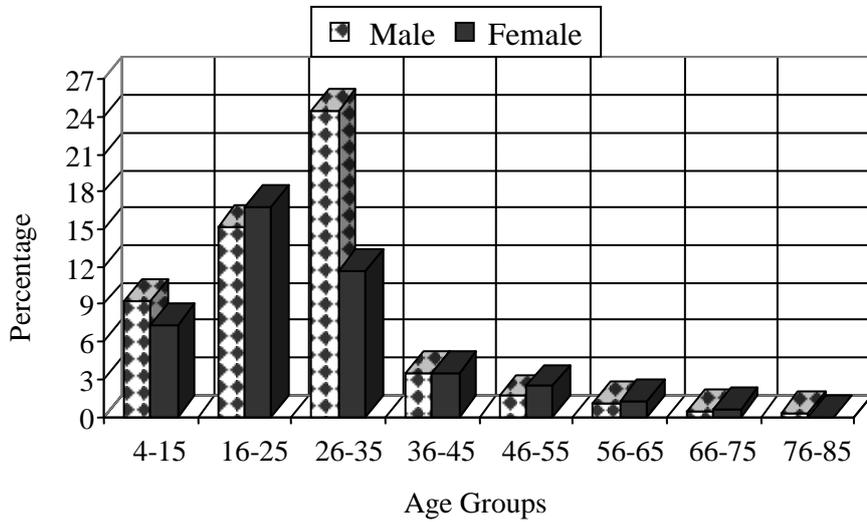


Figure (2): Percentage of samples in relation to age and sex

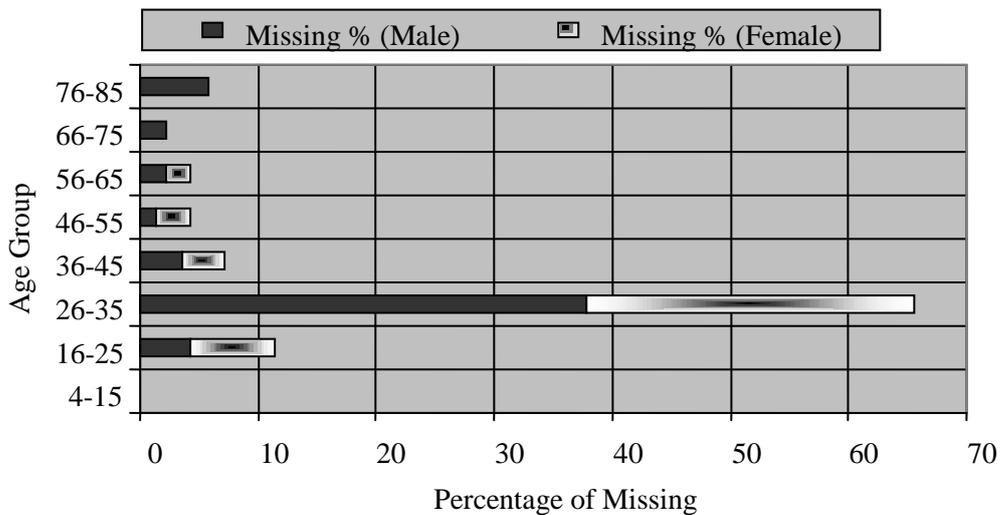


Figure (3): Percentage of samples with missing teeth in relation to age and sex groups

Table (1): The distribution of missing teeth in different age and sex groups of the sample

Age Group	Male		Female		Total	
	No. of Missing Teeth	%	No. of Missing Teeth	%	No. of Missing Teeth	%
4-15	0.0	0.0	0.0	0.0	0.0	0.0
16-25	6	4.29	10	7.14	16	11.43
26-35	52	37.15	39	27.86	91	65.0
36-45	5	3.57	5	3.57	10	7.14
46-55	2	1.43	4	2.86	6	4.29
56-65	3	2.14	3	2.14	6	4.29
66-75	3	2.14	0.0	0.0	3	2.14
76-85	8	5.71	0.0	0.0	8	5.71
Total Sample	79	56.43	61	43.57	140	100

In addition to that, their communication was moreover, especially with male dentists, because female patients used socioemotional talk to a greater extent than did the male.⁽¹⁴⁾ But this result disagreed with other authors,⁽¹⁵⁻¹⁹⁾ who found that females had more missing teeth than males. This may be due to that females do not withstand the pain and extract the teeth.

The incidence of tooth loss increases with age group between 26–35 years (Table 1) to a percentage of 65% which may be due to the low educational level as well as periodontal disease, dental caries and smoking which act as a risk factor for tooth loss.^(19, 20)

The results of this study showed that the younger groups have the low incidence of tooth loss because the sugar intake was

decreased for the 10 years before. This may be due to the embargo, also because caries prevalence, and sugar intake seem to be lower in rural than in urban areas.⁽²¹⁾

Class III Kennedy classification recorded high percentage (57.14%) compared with Classes II, IV and I as shown in Figure (4). This is probably due to the relative early disappearance of molars and premolars.^(19, 22, 23)

A comparison between subjects with tooth loss showed that 63% of them refused the replacement. This may be due to that they considered edentulousness as a non-fatal disease or as a non-urgent complaint like chronic disorders,⁽⁷⁾ or due to poor clinical performance⁽²⁴⁾ or due to anxiety which accompanies dental care and in some cases represent a disabling handicap.^(1, 25)

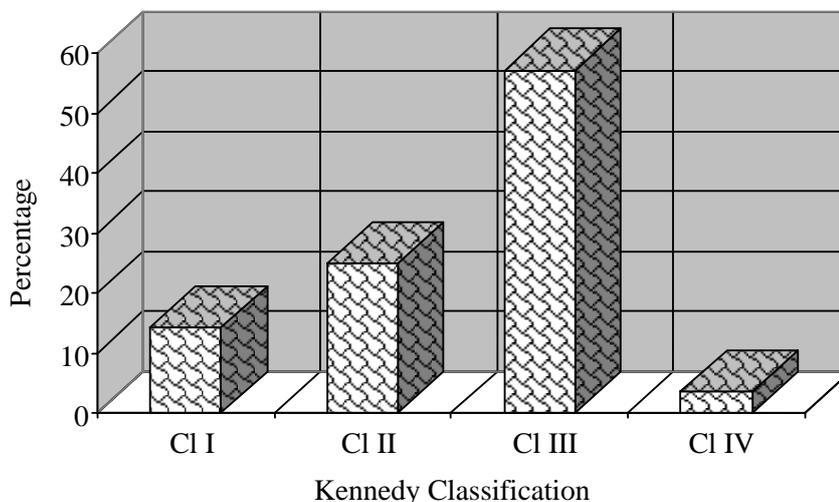


Figure (4): Distribution of edentulous areas in relation to Kennedy classification

The authors⁽²⁵⁻²⁷⁾ have outlined the characteristics of this type of dental anxiety and describe the typical pattern with which “odontophobia” is formed and persists over time. This enables them to understand the “attempted solutions” used to overcome this phobia, opening the way to the study of psychological interventions which may prove efficacious and effective; that is to say, the use of psychological treatment to reduce psychological stress and anxiety during dental procedures⁽²⁸⁾ and raising sensitivity for psychosomatic aspects in the dental medicine sector.⁽²⁹⁾

According to the items of CCEI separately (Table 2), the items in order of importance are somatic, obsession, phobic anxiety and hysterical personality which have high level of significance in com-

parison with other items of CCEI. This is due to the fact that the injurious effects of not reconstructed missing teeth have minor effects on the patient’s motivation.⁽³⁰⁾

The older unemployed persons (above 60 years) are losing not only their position in the family but in the society as well, experiencing a drop of self-esteem, and feeling unwanted and unnecessary.⁽⁸⁾ This can lead to symptoms of phobic anxiety, depression and somatic preoccupation, which will interfere with an effective prosthetic treatment.^(31, 32)

Although that the anxiety score shows low percentage (28.09%) in comparison to other scores but also play a role in complicated the dental care and it is more apparent among younger people especially females.⁽³³⁻³⁵⁾

Table (2): The psychoneurotic profile of patients presenting with missing teeth in Al-Humaidat village

Scale	Number	Percentage of Total Sample
Anxiety	175	28.09
Phobic Anxiety	384	61.64
Obsession	424	68.06
Somatic	585	93.9
Depression	70	11.24
Hysterical	384	61.64

Figure (5) showed that 63% of total patients having missing teeth were refused the replacement with prosthesis.

The results showed the reasons for refusing the replacement of missing teeth (Table 3). Do not need the denture (can live without it) was the main causes of refusing (72.86%). This is due to the fact that when psychological reactions become more intense and generalized, they may bring about certain disturbance of health,

which we have come to recognize, as psychosomatic in origin.^(31, 36) Another causes of refusing are the financial status or, in other words, the cost of the denture, which formed 50% of the total reason.⁽⁹⁾

The low level of education may be considered as another cause of, or plays a role in, refusal dental treatment due to the fact that such people have more negative attitude toward their oral health.^(1, 37, 38)

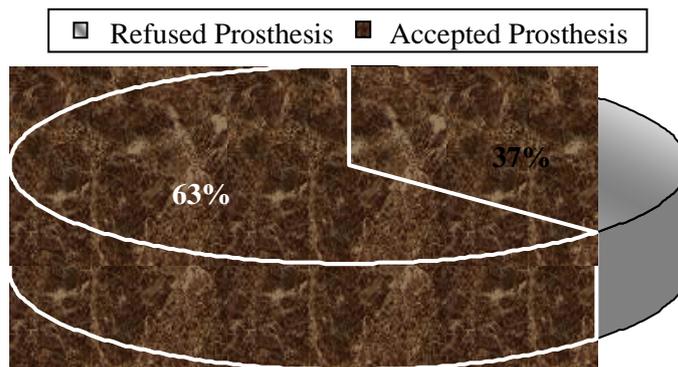


Figure (5): Percentage of patient acceptance to replace their teeth

Table (3): Reasons for missing teeth replacing refusal as reported by the study group

Reasons	Number	%
Don't need the denture (Can live without it)	102	72.86
Unacceptability of dental service (As a foreign body)	15	10.71
Unavailability of dental service	32	22.86
Economical causes	70	50
No time available	20	14.29
Other causes	45	32.14

In Table (4), which is dealing with the diet and dental health, it is prominent that the incidence of using of industry type of milk (NMES) 93%. This is due to the fact it is more available, cheap and higher consumption of healthier snacks.⁽³⁹⁾

In Figure (6), smoking tobacco not more than 19.26% of total samples and

such habit should be cessation due to the fact that tobacco is one of the risk factors most associated with poor oral hygiene, oral cancer as well as general health. This is due to the fact that incidence of tooth loss was high in smoking, compared with non-smoking individuals (especially in males).⁽⁴⁰⁾

Table (4): The types and mastication problems of diet

Diet and Mastication	Number	%	
Mastication on one side	215	35	
Long duration of mastication	75	12	
No ability for hard food mastication	55	9	
Type of milk used	Natural	170	27
	Industry	575	93
Type of diet before and after 1991 year	Change	517	83
	No change	106	17

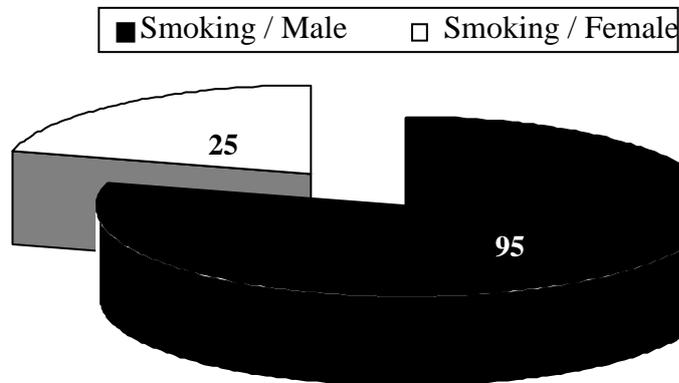


Figure (6): The prevalence of smoking habit and its percentage between both sexes of the sample

CONCLUSIONS

Males had more missing teeth than females.

The incidence of tooth loss increases with age group between 26–35 years.

Class III Kennedy classification recorded high percentage (57.14%) compared with Classes II, IV and I.

Sixty three percent of patients with missing teeth were refused the replacement.

The important items are somatic, obsession, phobic anxiety and hysterical personality that were have high level of significance in comparison with other items of CCEI.

The anxiety score shows low percentage (28.09%) in comparison to other scores.

Patients refusing replacement due to psychological reactions were 72.86%.

The incidence of using of industry type of milk was 93%. This is due to the fact it is more available and cheap.

Percentage of smoking tobacco was not more than 19.26% of total samples.

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