Psychological Assessments for the Partially Edentulous Persons through Different Scales, According to Some Demographical Variables.

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ABSTRACT

Aims: To get more information about the psychological condition for the partially edentulous persons, and the effect of culture and other demographical factors on there psychological condition. **Materials and Methods:** Fifty persons were diagnosed and were suitable for the criteria of the study, only 38 of them continued until completing the questionnaires; Information about members that needed for the study were taken. Mainly the sample group was divided to Iraqi and Egyptian sample, then sub grouped according to sex, age, education, financial and anxiety levels; Each member at this study requested to 3 method of psychological assessments, which were: Eysenck Personality Inventory; Hamilton Anxiety Scale; And Mental Health Test, then the scales results included in statistical analysis, by using the General Linear Models and Duncan's Multiple Range Analysis. **Results:** For the Iraqi group, a significant difference with Euphoria Scale related to age group variable, and with Hamilton Anxiety Scale related to sex variation, as well as anxiety level differences. For Egyptian group, the results showed significant differences with Neuroticism, Hamilton Anxiety Scales with anxiety levels differences; Also with Mental Health Scale related to all demographic variables taken at this study, except with the educational variation. Duncan's Multiple Range Test for partially Iraqis' and Egyptians' groups according to sex, education, finances, age and anxiety variation; Different significant values appeared at each one except with Euphoria Scale and some variables. **Conclusions:** There were significant differences in all psychological traits that examined at this study, except with Euphoria Scale. The Egyptians generally tend to be more euphoric, neurotic, anxious and less in mental health than Iraqis. The Lying and anxiety scales had a reverse relationship with the education and financial variation. Usually an anxious person tends to be more neurotic and less in mental health abilities; Usually females had more anxiety tendency than males.

Key words: Partially edentulous, psychological assessment, culture differences.

INTRODUCTION

A lot of research work has been undertaken in recent years to investigate the effect of tooth loss on the people's feelings. [1, 2]

The social stimuli of the culture affect the thoughts, oral and general motivations of individual's subsequent interactions, so from here the differences between the personality and psychological condition would appear. [3–7]

Jasim's [8] and Mahdi's [9] observations, showed that there was a significant difference between Iraqi community and other cultures in their psychoneurotic status.

The aim of this study was to get more information about the psychological condition for the partially edentulous persons who had un–replaced missing teeth, and the effect of culture differences on such psychological condition, according to some demographical factors.

MATERIALS AND METHODS

Fifty persons were diagnosed during the research period (extended through the year of 2006) and they were suitable for the criteria of the study, by using the basic method of dental examination. [10] They have been invited to participate at this research. Only thirty eight of them continued until completing the questionnaires; Information about member's name, age, sex, financial, educational state, and previous dental and prosthodontic history. The results of scales after calculating them included in the statistical analysis, by using

the General Linear Models and Duncan's sample group was divided according to region that the sample members collected from, and then sub grouped according to their sex, age, education, financial and anxiety levels, Figure 1.

The Iraqi Partially Edentulous group included males and females between age 20–60 years of old. They were partially edentulous and the periods from extraction were not limited, but no replacement for the missing teeth was available.

The criteria of selection the members included: They must have 2–5 extracted teeth (discard the wisdom teeth), but the other dentition not in fair condition; And fit medically, no somatic and / or psychiatric abnormalities.

This group includes 25 members, collected from the community of Mosul city.

The Egyptian Partially Edentulous group, included members aged between 35–60 years of old they were collected from the Cairo community, and there number were 13. They fulfilling the same criteria mentioned before with the Iraqi partially edentulous individuals.

Each member at this study requested to 3 methods of psychological assessments, which were:

Multiple Range Analysis. Mainly the
1. Eysenck Personality Inventory (EPI): This test was submitted by Hans Eysenck.[11] It consists of "Yes" and "No" questions designed to measure different traits of personality, to discover the subject personality orientation; If the member was inclined to euphoria (extraversion) or to the reverse condition (introversion), and if he/she was neurotic in behavior and mood, or had more ability to be a liar.[12,13]

Then the later modified with its brief copy at 1980, in a number of 57 questions.[14] The copy that has been depended in this study was the Arabic copy translated and introduced by Jabeer AJ and Mohammad F.[15] Hamilton Anxiety Scale (HAM– A): The scale was introduced by Max Hamilton at 1959 and measures the severity of anxiety and tension. It was consist from 14 items, each defined by a series of anxiety symptoms.[16,17] The translated Arabic copy was used in the study for anxiety assessment purpose.[18,19]

2. The Mental Health Test: From Minisota scale with multi – sides test (MMPI), which was not specified to Arab society, a modification had been done to give us the final picture of the test designed by Sa'eed YN, to stabilized the measuring of mental health of Iraqi community, which had 79 items.[20]
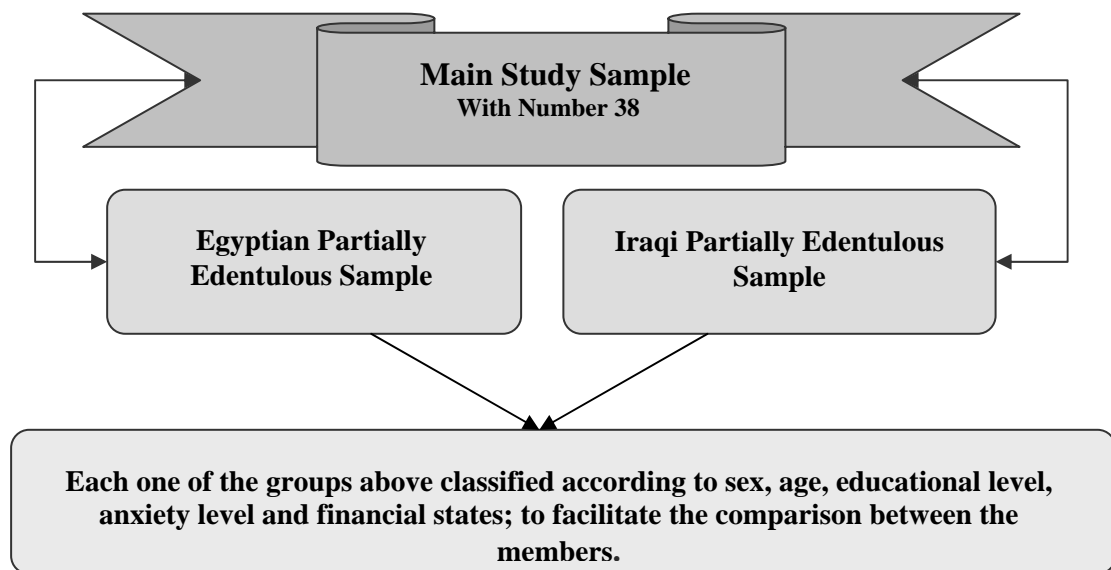

Figure (1): The experimental design of the study

RESULTS

For the Iraqi group, which had a mean age equal to 37 years and 320 days, and by using the General Linear Models for analysis purpose, a significant difference found with Euphoria Scale related to age group variable? Also it can be seen with Hamilton Anxiety Scale, but related to differences between sexes, as well as anxiety level differences, Table (1).

Table (1): General Linear Models Procedure analysis for all scales used with different variables, for the Iraqi partially edentulous members.

Scales	variables	Df	Sum of Square	Mean of Square	F – value	Pr > F
Lying Scale	Sex	1	323.1146	323.1146	2.72	0.1197
	Education level	1	54.7813	54.7813	0.45	0.5073
	Finances Level	2	306.3964	153.1982	1.29	0.3040
	Age group	3	1036.9155	345.6385	2.91	0.0688
	Anxiety level	2	0.7303	0.3651	0.00	0.9969
Euphoria Scale	Sex	1	215.0100	215.0100	1.10	0.3105
	Education level	1	1.1793	1.1793	0.01	0.9391
	Finances Level	2	228.8864	114.4432	0.59	0.5686
	Age group	3	2575.4924	858.4974	4.40	0.0207*
	Anxiety level	2	586.8340	293.4170	1.50	0.2541
Neuroticism Scale	Sex	1	102.2124	102.2124	0.50	0.4919
	Education level	1	2.5487	2.5487	0.01	0.9129
	Finances Level	2	38.5600	19.2800	0.09	0.9111
	Age group	3	770.6381	256.8793	1.25	0.3276
	Anxiety level	2	698.5462	349.2731	1.70	0.2167
Hamilton Anxiety Scale	Sex	1	303.2165	303.2165	5.67	0.0309*
	Education level	1	175.6654	175.6654	3.29	0.0900
	Finances Level	2	115.7935	57.8967	1.08	0.3637
	Age group	3	233.1714	77.7238	1.45	0.2670
	Anxiety level	2	3894.6789	1947.3394	36.42	0.0001**
Mental health Scale	Sex	1	7.2689	7.2689	0.15	0.7035
	Education level	1	88.3488	88.3488	1.83	0.1962
	Finances Level	2	18.3332	9.1666	0.19	0.8291
	Age group	3	424.6794	141.5589	2.93	0.0677
	Anxiety level	2	73.1466	36.5733	0.76	0.4860

$* = P \le 0.05$, $** = P \le 0.001$, Df = Degree of freedom.

For Egyptian group, with mean age equal to 38 years and 307days. Results that analysis by the General Linear Models Procedure showed a significant differences with Neuroticism Scale and anxiety levels differences, second with Hamilton Anxiety Scale according to differences levels of anxiety, last with Mental Health Scale related to all demographic variables taken at this study, except with the educational levels differences, Table (2).

Tables (3–7) showed by using Duncan's Multiple Range Test Analysis for partially Iraqis' and Egyptians' groups according to sex, education, finances, age and anxiety variation (in same order); A different significant values appeared at each of these tables except with Euphoria Scale related to sex and educational level variations which had no significances.

Table (2): General Linear Models Procedure analysis for all scales used with different variables for the partially edentulous Egyptians.

Scales	Variables	Df	Sum of Square	Mean of Square	F – value	Pr > F
Lying Scale	Sex	1	67.2359	67.2359	0.27	0.6333
	Education level	1	22.9105	22.9105	0.09	0.7784
	Finances Level	2	84.2598	42.1299	0.17	0.8521
	Age group	2	311.4791	155.7395	0.92	0.5845
	Anxiety level	2	456.8986	228.4493	0.90	0.4744
Euphoria Scale	Sex	1	178.6107	178.6107	0.80	0.4206
	Education level	1	3.4734	3.4734	0.02	0.9065
	Finances Level	2	164.7544	82.3772	0.37	0.7116
	Age group	2	346.0126	173.0063	0.78	0.5180
	Anxiety level	2	563.0148	281.5074	1.27	0.3747
Neuroticism Scale	Sex	1	502.4863	502.4863	8.96	0.0402
	Education level	1	251.4985	251.4985	4.49	0.1016
	Finances Level	2	582.9738	291.4869	5.20	0.0772
	Age group	2	284.4041	142.2020	2.54	0.1944
	Anxiety level	2	927.0265	463.5132	8.27	0.0379*
Hamilton Anxiety Scale	Sex	1	16.7121	16.7121	0.18	0.6895
	Education level	1	397.6304	397.6304	4.40	0.1041
	Finances Level	2	471.4763	235.7381	2.61	0.1886
	Age group	2	149.9906	74.9953	0.83	0.4998
	Anxiety level	2	3224.5771	1612.2885	17.82	0.0102*
Mental health Scale	Sex	1	240.9148	240.9148	15.97	0.0162*
	Education level	1	0.0072	0.0072	0.00	0.9835
	Finances Level	2	343.4385	171.7192	11.38	0.0223*
	Age group	2	297.3686	148.6843	9.86	0.0285*
	Anxiety level	2	20.9.0191	104.5095	6.93	0.0502*

$* = P \leq 0.05$, $** = P \leq 0.001$, Df = Degree of freedom.

Table (3): Duncan's Multiple Range analysis for Iraqi & Egyptian groups; according to Sex variation, within the Psychological Scales.

Scales	Groups	Sex	Number	Mean $\pm$ SD	Duncan's group
Lying scale	Partially edentulous members in Iraq	Male	14	40.476 $\pm$ 3.968	B
		Female	11	44.444 $\pm$ 3.963	B
	partially edentulous patients in Egypt	Male	8	34.722 $\pm$11.111	A
		Female	5	33.333 $\pm$ 9.296	A
Euphoria Scale	Partially edentulous members in Iraq	Male	14	41.071 $\pm$ 3.804	A
		Female	11	46.590 $\pm$ 5.779	A
	partially edentulous patients in Egypt	Male	8	45.312 $\pm$ 4.687	A
		Female	5	49.166 $\pm$ 5.803	A
Neuroti-cism Scale	Partially edentulous members in Iraq	Male	14	56.845 $\pm$ 3.969	AB
		Female	11	63.257 $\pm$ 5.019	A
	partially edentulous patients in Egypt	Male	8	66.145 $\pm$ 4.687	A
		Female	5	63.333 $\pm$10.976	A
Hamilton Anxiety Scale	Partially edentulous members in Iraq	Male	14	33.201 $\pm$ 5.137	BCD
		Female	11	30.808 $\pm$ 4.989	CDE
	partially edentulous patients in Egypt	Male	8	36.574 $\pm$ 8.368	B
		Female	5	50.000 $\pm$12.422	A
Mental health Scale	Partially edentulous members in Iraq	Male	14	70.759 $\pm$ 1.652	AB
		Female	11	67.571 $\pm$ 2.654	B
	partially edentulous patients in Egypt	Male	8	65.379 $\pm$ 5.175	BC
		Female	5	62.075 $\pm$ 3.922	C

Different letters vertically mean a significant difference at $p \leq 0.05$.

Table (4): Duncan's Multiple Range analysis for Iraqi & Egyptian groups; according to Educational Level variation, within the Psychological Scales

Scales	Groups	Educational Level	Number	Mean ± SD	Duncan's group
Lying scale	Partially edentulous members in Iraq	Low	14	47.619 ± 3.174	BCDE
		High	11	35.353 ± 4.189	E
	partially edentulous patients in Egypt	Low	4	38.888 ± 9.622	AB
		High	9	32.098 ± 5.052	B
Euphoria Scale	Partially edentulous members in Iraq	Low	14	40.773 ± 3.685	AB
		High	11	46.969 ± 5.868	AB
	partially edentulous patients in Egypt	Low	4	48.958 ± 3.125	A
		High	9	45.833 ± 5.007	A
Neuroti-cism Scale	Partially edentulous members in Iraq	Low	14	57.142 ± 4.398	AB
		High	11	62.878 ± 4.440	AB
	partially edentulous patients in Egypt	Low	4	68.750 ±14.282	A
		High	9	63.425 ± 3.975	A
Hamilton Anxiety Scale	Partially edentulous members in Iraq	Low	14	35.317 ± 4.338	B
		High	11	28.114 ± 5.902	C
	partially edentulous patients in Egypt	Low	4	58.333 ± 8.767	A
		High	9	34.362 ± 8.373	B
Mental health Scale	Partially edentulous members in Iraq	Low	14	69.511 ± 2.373	A
		High	11	69.159 ± 1.675	A
	partially edentulous patients in Egypt	Low	4	54.746 ± 5.007	B
		Female	5	62.075 ± 3.922	C

Different letters vertically mean a significant difference at $p \leq 0.05$.

Table (5): Duncan's Multiple Range analysis for Iraqi & Egyptian groups; according to Financial Level variation, within the Psychological Scales

Scales	Groups	Financial Level	Number	Mean ± SD	Duncan's group
Lying scale	Partially edentulous members in Iraq	Low	8	50.000 ± 2.099	ABC
		Medium	10	39.999 ± 2.456	BC
		High	8	37.499 ± 7.552	C
	partially edentulous patients in Egypt	Low	3	40.740 ±13.353	A
		Medium	6	27.777 ± 3.795	AB
		High	4	38.888 ± 9.622	A
Euphoria Scale	Partially edentulous members in Iraq	Low	8	40.104 ± 4.235	AB
		Medium	10	44.166 ± 4.697	AB
		High	8	46.875 ± 7.745	AB
	partially edentulous patients in Egypt	Low	3	50.000 ± 4.166	A
		Medium	6	47.916 ± 4.900	A
		High	4	42.708 ± 9.219	A
Neuroticism Scale	Partially edentulous members in Iraq	Low	8	53.125 ± 3.755	A–D
		Medium	10	66.250 ± 4.789	A
		High	8	57.812 ± 6.320	A–D
	partially edentulous patients in Egypt	Low	3	61.111 ±17.066	A
		Medium	6	70.833 ± 6.804	A
		High	4	59.375 ± 3.557	A
Hamilton Anxiety Scale	Partially edentulous members in Iraq	Low	8	30.092 ± 5.863	DEF
		Medium	10	40.740 ± 6.379	ABC
		High	8	21.527 ± 3.148	GH
	partially edentulous patients in Egypt	Low	3	58.024 ±12.391	A
		Medium	6	48.456 ±10.610	AB
		High	4	19.444 ± 4.175	C
Mental health Scale	Partially edentulous members in Iraq	Low	8	70.759 ± 3.102	A
		Medium	10	67.696 ± 2.258	AB
		High	8	69.240 ± 2.438	A
	partially edentulous patients in Egypt	Low	3	56.202 ± 6.775	C
		Medium	6	59.746 ± 4.051	C
		High	0	0	–

Different letters vertically mean a significant difference at $p \leq 0.05$.

DISCUSSION

A comparison between Iraq and Egypt samples, showed significant differences related to all Psychological Scales, except with Euphoria; that mostly did not showed any significances, Tables (3–7). This was an opposite to what measured by Labouvie–Vief *et al.*[21], study that interested with variation in euphoria sensation cross different countries, and concluded that euphoria tendency differ significantly according to culture variations.

The differences in psychological and personality patterns that showed with Tables (3–7) between the members of these two communities were related to the variation in their citizens' self–concepts, relations and traits of their personalities.[8,9,22] The groups at this study were selected randomly, so the similarity in number of subgroups members were very difficult.

The members related to Egyptians were less in number than Iraqi group, this was because "unfortunately" time constraints did not permit the inclusion of a larger number of members for this sample, but an attempt to closed the numbers of members within the demographical subgroups, was done.

Table (6): Duncan's Multiple Range analysis for Iraqi & Egyptian groups; according to Age variation, within the Psychological Scales

Scales	Groups	Age groups	Number	Mean $\pm$ SD	Duncan's group
Lying scale	Partially edentulous members in Iraq	$\leq$ 44	20	39.743 $\pm$ 3.3595	B–E
		45 – 54	4	50.000 $\pm$ 3.207	B–E
		$\geq$ 55	1	77.777 $\pm$ 0.000	A
	partially edentulous patients in Egypt	$\leq$ 44	6	25.925 $\pm$ 5.493	B
		45 – 54	3	37.037 $\pm$ 9.799	B
		$\geq$ 55	4	44.444 $\pm$ 7.856	B
Euphoria Scale	Partially edentulous members in Iraq	$\leq$ 44	20	48.9695 $\pm$ 4.0055	AB
		45 – 54	4	26.041 $\pm$ 6.669	BC
		$\geq$ 55	1	16.666 $\pm$ 0.000	C
	partially edentulous patients in Egypt	$\leq$ 44	6	50.000 $\pm$ 6.804	A
		45 – 54	3	50.000 $\pm$ 4.166	A
		$\geq$ 55	4	39.583 $\pm$ 3.608	AB
Neuroticism Scale	Partially edentulous members in Iraq	$\leq$ 44	20	61.95 $\pm$ 4.2935	ABC
		45 – 54	4	63.541 $\pm$ 11.708	ABC
		$\geq$ 55	1	29.166 $\pm$ 0.000	D
	partially edentulous patients in Egypt	$\leq$ 44	6	67.361 $\pm$ 5.633	A
		45 – 54	3	56.944 $\pm$ 5.007	A
		$\geq$ 55	4	67.708 $\pm$ 13.858	A
Hamilton Anxiety Scale	Partially edentulous members in Iraq	$\leq$ 44	20	34.0985 $\pm$ 9.5785	B–F
		45 – 54	4	33.068 $\pm$ 6.445	B
		$\geq$ 55	1	37.037 $\pm$ 0. 000	BCD
	partially edentulous patients in Egypt	$\leq$ 44	6	45.987 $\pm$ 11.861	A
		45 – 54	3	35.185 $\pm$ 19.274	AB
		$\geq$ 55	4	40.277 $\pm$ 8.498	A
Mental health Scale	Partially edentulous members in Iraq	$\leq$ 44	20	67.1955 $\pm$ 2.068	B–F
		45 – 54	4	70.506 $\pm$ 4.775	B–E
		$\geq$ 55	1	83.038 $\pm$ 0.000	A
	partially edentulous patients in Egypt	$\leq$ 44	6	64.135 $\pm$ 4.448	BC
		45 – 54	3	69.789 $\pm$ 10.012	AB
		$\geq$ 55	4	59.810 $\pm$ 6.295	C

Different letters vertically mean a significant difference at $p \leq 0.05$.

The results of this research directed the attention: That the members of this sample who had low financial and educational levels tend generally to be more anxious, with pretending (lying) abilities, Tables (4&5). This believed, as a result of economic pressures which made them suffer from psychological disturbances more than medium or high levels, and because the usual connection between high educations level with the reasonable money income, so members with high education mostly were included with the high financial level.

This was agreed with what recorded by Jasim[8] and Kehlol[23] in a study included a sample from Iraqi community, with a different income and educational levels, and such condition may be the ma-in cause for negative attitude toward the oral health.[24]

Table (7): Duncan's Multiple Range analysis for Iraqi & Egyptian groups; according to Anxiety Levels, within the Psychological Scales

Scales	Groups	Anxiety Levels	Number	Mean $\pm$ SD	Duncan's group
Lying scale	Partially edentulous members in Iraq	Low	18	40.740 $\pm$ 3.593	ABC
		Medium	5	46.666 $\pm$ 4.157	ABC
		High	2	44.444 $\pm$ 11.111	ABC
	partially edentulous patients in Egypt	Low	7	41.269 $\pm$ 6.734	B
		Medium	2	27.777 $\pm$ 5.555	B
		High	4	24.999 $\pm$ 5.319	B
Euphoria Scale	Partially edentulous members in Iraq	Low	18	44.444 $\pm$ 4.111	AB
		Medium	5	45.000 $\pm$ 6.236	AB
		High	2	31.250 $\pm$ 10.416	B
	partially edentulous patients in Egypt	Low	7	41.071 $\pm$ 5.097	A
		Medium	2	52.083 $\pm$ 10.416	A
		High	4	54.166 $\pm$ 3.402	A
Neuroticism Scale	Partially edentulous members in Iraq	Low	18	59.027 $\pm$ 3.647	BC
		Medium	5	51.66 $\pm$ 2.825	BC
		High	2	85.416 $\pm$ 2.083	A
	partially edentulous patients in Egypt	Low	7	52.976 $\pm$ 4.610	BC
		Medium	2	81.250 $\pm$ 2.083	A
		High	4	78.125 $\pm$ 6.669	A
Hamilton Anxiety Scale	Partially edentulous members in Iraq	Low	18	23.045 $\pm$ 2.059	C
		Medium	5	48.888 $\pm$ 2.385	B
		High	2	72.222 $\pm$ 5.555	A
	partially edentulous patients in Egypt	Low	7	22.486 $\pm$ 3.008	C
		Medium	2	46.296 $\pm$ 1.851	B
		High	4	73.148 $\pm$ 7.031	A
Mental health Scale	Partially edentulous members in Iraq	Low	18	70.014 $\pm$ 1.681	AB
		Medium	5	69.265 $\pm$ 3.997	AB
		High	2	63.670 $\pm$ 6.202	ABCD
	partially edentulous patients in Egypt	Low	7	72.947 $\pm$ 2.612	A
		Medium	2	58.860 $\pm$ 11.265	B
		High	4	51.265 $\pm$ 1.806	C

Different letters vertically mean a significant difference at $p \leq 0.05$.

At Table (5) which generally appeared that the highest values of lying scale related to the low financial groups, the reason for such result was that they try to hide their economic low level by fouls personalities. This was agreed with the idea of Geckova *et al.*[25], they believed that the economic status seemed to play an important role in effecting the psychoneurotic status and physical general health, those with inadequate income felt with insecurity that contributes to the onset of mentally illness and personality disturbances.

With euphoria sensation, no matter was important about the financial level of the members, because most of them had the same range in this scale, the important factor effect really on euphoric condition, was the loss of teeth, regardless the educational and financial state; Tables (4&5). This was proved also in article which discussed the effects of tooth loss and demographic factors on the life quality done by John *et al.*[26]

Myers [27] had a different opinion; He suggested that happiness and satisfaction are associated with economic growth and personal income. With the Egyptian sample a clear view was seen, revealed that this group was high in anxiety expression, and low in mental health scale, especially for low financial level members; Table (5).

Čelebić *et al* .[28] concluded that the level of economic status may affect the edentulous quality of life. This was also agreed with research done by Jasim[8] and Belle *et al.*[29], which showed that economic status had a significant correlation with psychological distress and diagnosable mental disorders.

A significancy was established for euphoria sensation and age variation at Table (1), The aged group appeared less euphoric than the youngest groups Table (6); This might be related to inability of old person to cope with the aging process and the related signs or symptoms, such opinion cleared also by others.[30–32]

Hatim *et al.* [33], showed that the neuroticism increased whenever the age of partially edentulous Iraqis was degreased. This was proved also in this study regardless the Egyptian partially edentulous members, which not show a significant dif-

fference with this trait, Table (6). This may due to hormonal instability action and the intensity of the stress–producing stimulus at this age period.[32,34]

Usually the oldest members were tend to be more able for lying in their answers, Table (6); An agreement by study done by Birren and Schaie's[31] study, that they correlated the personality traits and motivation with age variation. This may give indication that old age group were prominent with Lying Scale, according their believing of the thought that, they should be appeared with perfect personalities to serve other people opinions, so they try to create wisdom, stable personalities for themselves.

The Euphoria Scale results agreed with Labouvie–Vief *et al.*[21] openians, they proved that there was a significancy between age and euphoria; they claimed that age was reversely correlated with euphoria sensation; Table (6). These results agreed with Costa and McCrae [35, 36] observations, the two sciences proved that the euphoria and neuroticism were correlated with the age, in a reverse relation.

The anxiety and mental health did not had a specific relation with age variation, but generally anxiety had a high values with age groups less than 44 and more the 55 years of old, for both communities; The mental health score related directly with oldest ages, except with Egyptians' old ages (more than 55 years of old).

Birren and Schaie[31] supported these results by their conclusion that the adaptation for stress events and the ways to respond and reaction with it, differ across age development.

The fact that explained that, the neuroticism increased whenever the age of partially edentulous Iraqis was degreased was proved with Tables (2 & 7), such relation explained by McCrae and Costa[35] as a strong tiedness between the neuroticism traits and the persons' ability to face stressors.

Whenever the mental health enhanced, the anxiety attacks become more controlled, this was seen especially with Egyptian group, because individuals at such state were at a balance state of mental and general health, Table (7). An agree-

ments with different books and articles were accomplished.[32,37,38]

At Table (3) a significant difference with Lying Scale between Iraqi and Egyptian groups, was observed clearly; Such variation between two different areas can be seen as a result of variation in population, environmental circumstances or socioeconomic status between the countries even may be duo to sample size differences.[8]

Although there was no significant difference between all sexes groups of the study sample in euphoria scoring; but generally it's higher for females; The Egyptian females especially achieved the highest level of euphoria tendency with mean value equal to 49.166. Within Table (3), the absence of significant differences between two sexes at this scale was agreed with Al–Ansari and other researchers [14, 39, 40], but differs in one point, which was the recorded means' values of euphoria for males, higher than females. This was disagreed with the results of Labouvie–Vief *et al.* [21] study that proved Euphoria scores were significantly affected by gender.

Studies of Holtzman *et al.* and others [36, 41–43], proved that females are usually more neurotic in their personalities than males, but no significant differences were seen at this study related to this variable.

A significant variation between the anxiety and the sex groups was investigated at Table (1), but the prominent groups that showed high values were with females at Egypt sample Table (3). These results agreed with Birren and others[27,31] opinions, who studied the relationship of the high anxiety incidence with women related psycho–somatic pressures, and they believed that happiness and satisfaction associated to social support and relationships, marriage, career condition and religious faith, can play an effective role in the anxiety incidence. Males generally showed no significant variation in mental health scale between their groups, but the significances were observed between two sexes, Table (2). The Egyptian females had the highest anxiety score and lowest one with Mental Health Scale, Table (3).

Al–Zeidy [44] at his study revealed high rates of somatic symptoms (headache, fatigue or tiredness, palpitation, chest pain, dry mouth) were related to anxiety development, particularly with females. Also study accomplished by Younis [45] included a ruler areas outside Baghdad city, concluded that single females were predominant in appearing anxiety.

But a disagreement opinions were introduced by other studies stated that their was no significant difference of anxiety signs between the two sexes.[46–49] On the other hand, the Iraqi males appeared to be the group with the lowest score of neuroticism and anxiety, and the highest one with mental health.

The importance of studying the anxiety appeared through its effect on the quality of life, economic dependences, multiple somatic complaints and maladaptive personality traits.[44] At Table (7) a different relations were investigated between anxiety levels with Lying and Euphoria Scales, so couldn't be organized in a special manner; These relations irregularity due to what explained by Liddell and Locker[50] in their literature, they suggested that the anxious individuals are not homogenous group, and this phenomenon was a complex one, and related to different factors, also contributed to many situations, with same table an evidence for a direct relation ship between neuroticism and anxiety, but reverse relation with mental health was investigated; This might explained by the idea that the person who was affected easily by his environment, was the most sensitive and anxious than others, these was agreed with Ge *et al* study and others.[14,51]

CONCLUSIONS

There were significant differences in all psychological traits that examined at this study for the partially edentulous members, for Iraqi and Egyptian cultures, except with Euphoria Scale. The Egyptians generally tend to be more euphoric, neurotic, anxious and less in mental health than Iraqis. The Lying and anxiety abilities had a reverse relationship with the education and financial variation. Their were a significant differences between age groups and the psychological scales, but un predictable relation was appeared between them, except with the euphoria that had a reverse relation with age increasing. Usu-

ally an anxious person tends to be more neurotic and less in mental health abilities; and the females had more anxiety tendancy than males.

REFERANCES

1. Fiske J, Davis DM, Frances C, Gelbier S. The emotional effects of tooth loss in edentulous people. *Br Dent J*. 1998; 184: 90–3.

2. Davis DM, Fiske J, Scott B, Radford DR. The emotional effects of tooth loss: a preliminary quantitative study. *Br Dent J*. 2000; 188: 503–8.

3. Hong Y, Morris MW, Chiu C, Benet–Martinez V. Multicultural Mindes–A Dynamic Constructivist Approach to Culture and Cognition. *American Psychologist*. 2000; 55(7): 709–20.

4. Johansson T. Social Psychology and Modernity. Open University Press. Buckingham. Philadelphia. 2000; Pp: 1–15.

5. Paunonen SV, Zeidner M, Engvik HA, Oosterveld P, Maliphant R. The nonverbal assessment of personality in five cultures. *J Cross–Cult Psychol*. 2000; 31: 220–39.

6. Fisher CB, Hoagwood K, Boyce C, Duster T, Frank DA, Grisso T, Levine RJ, Macklin R, Spencer MB, Takanishi R, Trimble JE, Zayas LH. Research Ethics for Mental Health Science Involving Ethnic Minority Children and Youths. *American Psychologist*. 2002; 57(12): 1024–039.

7. Katigbak M, Church A, Guanzon–Lapeña A, Carlota A, Del Pilar G. Are Indigenous Personality Dimensions Culture Specific? Philippine Inventories and the Five–Factor Model. *Journal of Personality and Social Psychology*. 2002; 82 (1): 89–101.

8. Jasim N. Psychiatric Morbidity in Gynaecology Outpatients. Ph.D. thesis, Scientific Council of the Iraqi Commission for Medical Specialization in Psychiatry. 1993.

9. Mahdi IS. The Role of Psychoneurotic, social and other Factors in Refusal of Complete Denture Treatment. M.Sc. thesis, College of Dentistry, Baghdad University. 2002.

10. Zarb GA, Bolender CL, Carlsson GE. Boucher's Prosthodontic Treatment for Edentulous Patients. 11th edition, Mosby. 1997; P: 57.

11. Aluja A, Garcia Ó, Garcia LF. A psychometric analysis of the revised Eysench Personality Questionnaire short scale. *PAID*. 2003; 35: 449–60.

12. Guckes AD, Smith DE, Swoope CC. Counseling and Related Factors Influencing Satisfaction with dentures. *J Prosthet Dent*. 1978; 39: 259–67.

13. Atkinson RL, Atkinson RC, Smith EE, Bem DJ, Hoeksema SN. Hilgard's Introduction to Psychology. 12th edition, Harcourt Brace College Publishers. 1996; P: 422.

14. الانصاري، بدر محمد. الصورة الكويتية لإستخبار "ايزنك" للشخصية (صيغة الراشدين)، مجلة دراسات الخليج والجزيرة العربية، العدد 104، 2002. صفحة: 69–113.

15. زهران، حامد عبدالسلام. التوجيه والإرشاد النفسي، الطبعة الثانية، عالم الكتب، 1982 :201.

16. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol*. 1959; 32: 50–55.

17. Ozarin L. Hamilton: The Man behind the Scale. *Psychiatric News*. 2002; 37(20): 43.

18. Al–saffar NM, Al–Nakhla NB, Al–Dabbagh TQ, Taka MT. Study of Anxiety among Female Diabetics. *Annals of the College of Medicine–Mosul*. 1980; 11(1).

19. Al–saffar NM, Al–Nakhla NB, Al–Dabbagh TQ. Are Two Psychiatrist Necessary for Conducting Hamilton Rating Scale? *Annals of the College of Medicine–Mosul*. 1981; 12(2).

20. Sa'eed YN. Constructing a scale of Mental Health for University Students According to Indicators of Minnesota–Mutiphasic Personality Inventory M.M.P.I . Ph.D. thesis, College of Education, Ibn Rushd, Baghdad University. 2003.

21. Labouvie–Vief G, Diehl M, Tarnowski A, Shen J. Age Differences in Adult Personality: Findings from the United State and China. *GSA Series*. 2000; 55 (1): 4–17.

22. Kosslyn SM, Rosenberg RS. Fundamentals of psychology–The Brain, the Person, the World. Pearson Education. 2005; Pp: 290–450.

23. Kehlol AK. Comorbidity of Generalized Anxiety and Major Depressive Disorders in Psychiatric Outpatients. Ph.D. thesis, Scientific Council of the Iraqi Commission for Medical Specialization in Psychiatry. 1999.

24. Al–Beraqdar FA. The Significance of Oral Health Education on Prevalence and Severity of Gingivitis Among Two Groups of Students From the Institute of Medical

Technology. *Iraqi Dent J*. 2002; 31:233–44.

25. Geckova AM, Van Dijk JP, Zezula I, Tuinstra J, Groothoff JW, Post D. Socio–economic Differences in Health among Slovak Adolescents. *Soz.–Präventivmed*. 2004; 49: 26–35.

26. John MT, Koepsell TD, Hujoel P, Miglioretti DL, LeResche L, Micheelis W. Demographic factors, denture status and oral health–related quality of life. *Community Dent Oral Epidemiol*. 2004; 32: 125–32.

27. Myers DG. The Funds, Friends, and Faith of Happy People. *American Psychologist*. 2000; 55(1): 56–67.

28. Čelebić A, Knezoić–Zlatarić D, Papić M, Carek V, Baučić I, Stipetić J. Factors Related to Patient Satisfaction With Complete Denture Therapy. *GSA*. 2003; 58A (10): 948–53.

29. Belle D, Doucet J, Harris J, Miller J, Tan E. Who Is Rich? Who Is Happy? *American Psychologist*. 2000; 55(10): 1160.

30. Hall ML, Hazen SP, Moyers RE, Redig DF, Robinson HG, Silverman SI. Review of Full Denture Patients Treated in Johannesburg During 1967, 1972 and 1977. Year Book Medical Publishers. 1982; Pp: 163–64.

31. Birren JE, Schaie KW. Handbook of the Psychology of Aging. 3d Ed., Academic Press. 1990; Pp:104–30, 172–83, 330–46, 489–501.

32. Harris NO. Primary Preventive Dentistry. 6th Ed., Person Prentic Hall. 2004; Pp: 449–601.

33. Hatim NA, Muhammed SA, Hasan NH. Psychosocial Profile of Patient with Missing Teeth and Refuses Treatment. *Al–Rafidain Dent J*. 2003; 3(2):88–95.

34. Kaminer D, Seedat S, Potocnik F, Stein D. Anxiety disorders in the aged, cited by: Stein DJ, Hollander E. Textbook of Anxiety Disorders. American Psychiatric Press, Washington DC. 2002; Pp: 429–440.

35. McCrae RR, Costa PT. Recalled parent–child relations and adult personality. *Journal of Personality*. 1988; 56: 417–34.

36. Holtzman JM, Berg RG, Mann J, Berkey DB. The Relation Ship of Age and Gender to Fear and Anxiety in Response to Dental Care. *Spec Care Dentist*. 1997; 17(3): 82–7.

37. Öwall B, Käyser AF, Carlsson GE. Prosthodontics– Principles and Management Strategies. Mosby–Wolfe. 1996; Pp: 85–95, 125–35.

38. Basker RM, Davenport JC. Prosthetic Treatment of the Edentulous Patient. 4th Ed., Blackwell Munksgaard puplisher. 2002; Pp: 1– 37.

39. Merten T, Rush W.A comparison of Computerized and Conventional Administration of the German Version of Eysenck Personality Questionnaire and the Carroll Rating Scale for Depression. *Personality and Individual Differences*. 1996; 20: 281–291.

40. Martin T, Kirkcaldy B. Gender Differences on the EPQ–R and attitudes to work. *Personality and Individual Differences*. 1998; 24: 1–5.

41. Goodwin I, Gotlip D. Personality Factor Provides Depression Gender Differences Clue. *Psych Res*. 2004; 126: 135–42.

42. Hettema JM, Prescott CA, Kender KS. Genetic and Environmental Sources of Covariation between Generalized Anxiety Disorde and Neuroticism. *Am J Psychiatry*. 2004; 161: 1581–587.

43. الانصاري، بدر محمد. مدى كفاءة قائمة العوامل الخمسة الكبرى للشخصية في المجتمع الكويتي، مجلة علم النفس، العدد 83، 1996. صفحة: 6–19.

44. Al–Zeidy AA. The Frequency of Generalized Anxiety Disorder Symptoms in Iraqi Patients. Ph.D. thesis, Scientific Council of the Iraqi Commission for Medical Specialization in Psychiatry. 1995.

45. Younis MI. Psychiatric Morbidity in Inpatients with Neurological Psychoneurotic Profiles of Paramedical Students. Ph.D. thesis, Scientific Council of the Iraqi Commission for Medical Specialization in Psychiatry. 1992.

46. Eysenck HJ, Eysenck SBG. Manual of the Eysenck Personality Questionnaire. San Diego, CA: Educational and Industrial Testing Service. Cited by :
الأنصاري ،2002، الصورة الكويتية لاستخبار ايزنك للشخصية (صيغة الراشدين)، مجلة دراسات الخليج والجزيرة العربية، العدد 104، صفحة 84. 1975.

47. Wilson DJ, Doolabn A. Reliability, factorial validity and equivalence of several from of the Eysenck Personality Inventory/ Questionnaire in Zimbabwe. *Personality and Individual Differences*. 1992; 13: 637–43.

48. Mortensen EL, Reinisch JM, Sanders SA. Psychometric properties of the Danish 16

PF and EPQ. *Scandinavian Journal of Psychology*. 1996; 37: 221–25.

49. عبد الخالق، أحمد. اعداد إستخبار ايزنك للشخصية ـ وضع ايزنك وزملاؤه، الإسكندرية ـ دار المعرفة، 1991: 167.

50. Liddell A, Locker D. Changes in levels of dental anxiety as a function of dental experience. *Behavior Modification*. 2000; 24(1): 57–69. (abstract)

51. Ge X, Conger RD, Cadoret RJ, Neiderhiser JM, Yates W. The developmental interface between nature and nurture: a mutual influence model of child antisocial behavior and parent behaviors. *Devel Psych*. 1996; 32:574–89.