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Research Paper

The Psychiatric Morbidity and Self-Esteem among Patients Suffering from Acne Vulgaris Attending Center of Dermatology and Venerology at Baghdad Teaching Hospital

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ABSTRACT:

BACKGROUND:

Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit. Acne can probably be exacerbated by psychological stress. The psychological impacts of acne have documented dissatisfaction with appearance, embarrassment, self-consciousness, and lack of self-confidence in acne patients.

OBJECTIVE:

To estimate the prevalence of psychiatric morbidity and self-esteem in patients suffering from fascial acne attending center of dermatology and venerology in Baghdad medical city.

PATIENTS AND METHODS:

This is cross sectional study included 100 patients' age ranged from 16 to 35 years suffered from fascial acne attend to center of dermatology and venerology at Baghdad medical city. This study was extended for 9 month. Special questionnaire form was filled for each patient that directs the interview; the questionnaire was included three parts: First part composed of questionnaire that asking about sociodemographic variable like age, gender, education, occupation, marital status, children and residency. Second part of questionnaire measure psychiatric morbidity like depression, anxiety, coping and social dysfunction using general health questionnaire (GHQ 30). Third part: Rosenberg self-esteem scales a widely used self-report instrument for evaluating individual self-esteem.

RESULTS:

Number of sample was (100) randomly collected of those who attending to the center of dermatology and venerology in Baghdad medical city.

The patients aged below 20 were 54%, eighteen patients were male and 82% were single and10% were married; only 10% of patient got children. Twenty eight patients were had employment and 89 patients lived in urban area. Psychiatric morbidity was found in around 57% of the patient, 61% of cases had anxiety, 53% of cases had depression and hopelessness, 49% of cases had difficulty in coping and dispirited, 56% of cases had social dysfunction, 36% of patients with low self-esteem.

CONCLUSION:

The psychiatric morbidity was common among patients with acne vulgaris.

Psychiatric morbidity and Low self-esteem were significantly higher among female, lower education, divorced, widowed, unemployed patients.

KEY WORDS: psychiatry, morbidity, self-esteem, acne.

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INTRUDUCTION:

Skin is the most visible organ which determines our appearance and plays a major role in social communication and attractiveness. The skin condition may have a greater impact on the patient's wellbeing [(1)].

Acne vulgaris items are commonly referred to as acne, is a chronic inflammatory disorder of the pilosebaceous glands [(2,3)]. Acne can probably be exacerbated by stress. The influence of acne on body image is believed to be the main factor associated with psychiatric morbidity [(4)].

Acne vulgaris predominantly occurs during puberty and can persist beyond 25 years of age, most commonly in women. Typically thought of as a disease of youth, acne often continues to be problematic well into adulthood. In a survey-based study in the US, 35% of women and 20%

of men reported having acne in their 30s, while 26% of women and 12% of men were still affected in their 40s[5].

The psychological effect of acne on patients can be considerable. The interaction of acne vulgaris and psychosocial issues is complex and, in adolescence, can be associated with developmental issues of body image, socialization. Previous studies on the psychosocial impact of acne have documented dissatisfaction with appearance, embarrassment, self-consciousness, and lack of self-confidence in acne patients. Social dysfunction has also been observed, including concerns about social interactions with the opposite gender, appearances in public, interaction with strangers, and reduced employment opportunities. Furthermore, acne is associated with anxiety, depression, bouts of anger and low self-esteem also been observed.

It can be negatively associated with participation in sports, exercise and social activity .[6]

Patients suffering from acne have been found to be having low self-esteem, experience decrease or avoidance of social activities. As part of the emotional impact, frustration, sadness and anxiety are also observed[7].

Although not life-threatening condition, acne can lead to significant cosmetic disfigurement. In addition, acne vulgaris is commonly associated psychiatric problems, such as depression, anxiety and low self-esteem. Higher levels of depression and anxiety have been found in acne patients than in general population. There might be common pathophysiologic factors that facilitate the development of acne and increase the risk of depression and anxiety in patients who suffers from acne vulgaris.[8] it can be associated with a psychosocial burden including increased levels of anxiety, anger, depression, and frustration, which in turn can affect academic performance [9].

Depression is usually manifested by one or more signs and symptoms, such as social withdrawal and impact occupational activities, distractibility, and suicidal thought [11]. And other signs including insomnia or hypersomnia and increase or decrease in appetite, may also be found. Deterioration in academic performance, social withdrawal, agitation and impulsive behavior are clues that an adolescent may be significantly depressed[12].

Anxiety It is characterized most commonly as a diffuse, unpleasant sense of apprehension, often accompanied by autonomic symptoms such as headache, over sweating, palpitations, tachycardia, chest tightness, stomach discomfort, and restlessness. And other symptoms like (muscle cramps, poor sleep and distractibility). The particular constellation of symptoms present during anxiety tends to vary among persons[13].

Self-esteem refers to an individual's subjective evaluation of his or her worth as a person. Importantly, self-esteem does not necessarily reflect a person's objective talents and abilities, or even how a person is evaluated by others. Moreover, self-esteem is commonly conceptualized as the "feeling that one is 'good enough,'" and consequently, individuals with high self-esteem do not necessarily believe they are superior to others [14].

Self-esteem involves feelings of self-acceptance and self-respect[15].

It has been suggested that patients dealing with acne may experience issues with perception of body image and low self-esteem as well as social isolation and avoid any social activities and social interactions.[16] Self-esteem is a favorable and unfavorable attitude toward oneself.[17]

A marked emphasis has been placed on body image in society, fueled by external cues such as the media.[18,19]

Numerous dimensions of the self-concept have been considered in social psychology. An elementary but useful distinction is between the content of self-conceptions (e.g. identities) and self-evaluations (e.g. self-esteem). Identity focuses on the meanings comprising the self as an object, gives structure and content to self-concept, and anchors the self to social systems[20,21]. Self-esteem deals with the evaluative and emotional dimensions of the self-concept [22]

PATIENT AND METHOD:

This is cross sectional observational study.

Sample:

Consecutive sampling: each patient was fulfilling the criteria has been selected until we reach the required number of the sample.

Any patient has been selected in this study should be newly diagnosed by a dermatologist and suffering from acne for at least for 6 months.

The sample was collected among patients attended to the center of dermatology and venerology at Baghdad Teaching Hospital; two days per week. The interview last about 30 minute for each patient.

This study included 100 patients' age ranged from 16 to 35 years suffered from facial acne vulgaris, attend to center of dermatology and venerology at Baghdad Teaching Hospital at interval between February 2020 to first of August 2020.

Setting and duration:
This study was extended for 6 months from (first of February 2020 to first of August 2020).

Instruments:
Special questionnaire form was filled for each patient that directs the interview; the questionnaire was included three parts:

- First part composed of form that asking about sociodemographic variable like age, gender, education, occupation, marital status, children and residency.
- Second part of questionnaire measure psychiatric morbidity like depression, anxiety, coping and social dysfunction using general health questionnaire (GHQ 30).

The General Health Questionnaire (GHQ) (Arabic version) is self-reported screening tools used for detecting psychiatric problems among people dwelling in community and nonpsychiatric clinical settings [23].

The list of questions in the (GHQ 30) covers many different types of behavior, including sleep patterns, worries, relationships, depressed mood, etc. Therefore, it may be possible to derive subscales, each concerned with a particular type of symptom, and subsequently to derive a score for each individual on each of these subscales[24].

Factor A: anxiety, worry and tension
Factor B: depression, hopelessness
Factor C: difficulty in coping, dispirited
Factor D: social dysfunction

The GHQ-30 consists of 30 items, each one assessing the severity of mental problem over the past few weeks using a 4 point Likert scale (simple Likert scoring 0 1 2 3)[25], the average GHQ scores were used as cutoff points to estimate the proportions of patients who more than the average were considered to be suffering psychological distress.[26,27].

- Third part: Rosenberg self-esteem scales a widely used self-report instrument for evaluating individual self-esteem.
- Rosenberg self-esteem scale is 10-item scales that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree[28].

Scoring: Items (2, 5, 6, 8, 9) are reverse scored. Give "Strongly Disagree" 0 point, "Disagree" 1 points, "Agree" 2 points, and "Strongly agree" 3 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores than 15 indicate normal or high self-esteem, less than 15 indicate low self-esteem[37].

Inclusion criteria:

- Patient age more than 16; facial acne vulgaris (first time diagnosis by dermatologist); more than 6month suffer from acne.

Exclusion criteria:
Patients who had:

- Chronic medical condition; psychiatric illnesses; chronic drug use.

Ethical consideration:

- The research proposal was fully discussed and approved by the ethical and scientific committee of Iraq board for psychiatric, the agreement of health authority in center of dermatology and venerology of Baghdad teaching hospital were taken before study data collection.
- Verbal consent was taken from each included patient after full explanation of aim of the study and ensuring patient about confidentiality of the collected data that will be anonymous and never been used for any other purpose rather than this study.

Statistical analysis

- The collected data were introduced in to Microsoft excel sheet 2016 and after refining and revision the data were loaded into SPSS V24 statistical program.
- Descriptive statistics: were presented using tables and graft.
- Chi-square test was used to find out significant of associated between sociodemographic variables and outcome variables.
- P value less than 0.05 was considered as discrimination point for significance.

RESULTS:

Table (1) Shows that 54% of the studied sample aged less than 20years and 18 were males.

Table 1: Distribution of studied sample according to sociodemographic variables.

Age	<20	54	54.0%
	=>20	46	46.0%
Gender	Male	18	18.0%
	Female	82	82.0%
Education	Primary	22	22.0%
	Secondary	58	58.0%
	University	20	20.0%
Marital status	Single	82	82.0%
	Married	10	10.0%
	Other	8	8.0%
Children	yes	10	10.0%
	no	90	90.0%
Job	Employee	28	28.0%
	Unemployed	36	36.0%
	Student	36	36.0%
Residence	Urban	89	89.0%
	Rural	11	11.0%

The mean of total GHQ score is 51.1 ±8.9, with 57% of cases had score more than the average (57% of cases had poor GHQ score on the binary division scale), which is mean 57% of cases had psychiatric morbidity.

Table 2: Association between studied variables and total GHQ score.

	Age	N	Mean	Std. Deviation	
Age	<20	54	56.5	7.2	0.001
	=>20	46	44.6	5.9	
Gender	Male	18	41.4	7.1	0.001
	Female	82	53.2	7.9	
Education	Primary	22	61.1	8.2	0.001
	Secondary	58	50.4	5.9	
	University	20	41.9	5.2	
Marital status	Single	82	51.5	8.5	0.001
	Married	10	41.4	5.3	
	Other	8	58	7.2	
Children	Yes	10	51.8	11.5	0.784
	No	90	50.9	8.6	
Occupation	Employee	28	42.7	6.5	0.001
	Unemployed	36	55.8	8.7	
	Student	36	52.7	5.8	
Residence	Urban	89	50.5	8.5	0.113
	Rural	11	55.1	10.8	

GHQ was divided into four categories:

1- Category A: anxiety, worry and tension.
2- Category B: depression and hopelessness.
3- Category C: difficulty in coping and dispirited.
4- Category D: social dysfunction.

Category A:

The mean of anxiety, worry and tension score is 14.88 ±3.19, with 61% of cases had score more than the average (61% of cases had anxiety on the binary division scale).

Table 3: Association between studied variables and Anxiety, worry and tension.

	Age	N	Mean	Std. Deviation	
Age	<20	54	16.6	3.1	0.001
	=>20	46	12.9	1.8	
Gender	Male	18	11.5	2.1	0.001
	Female	82	15.6	2.9	
Education	Primary	22	17.4	3.4	0.001
	Secondary	58	14.8	2.6	
	University	20	12.2	1.9	
Marital status	Single	82	15.1	3.1	0.003
	Married	10	11.8	2.7	
	Other	8	16.2	1.3	
Children	yes	10	14.8	3.2	0.934
	no	90	14.8	3.1	
Occupation	Employee	28	12.5	2.1	0.001
	Unemployed	36	15.7	3.1	
	Student	36	15.8	3.2	
Residence	Urban	89	14.7	3.1	0.183
	Rural	11	16.0	3.6	

Category B:

The mean of depression and hopelessness is 8.94 ±1.85, with 53% of cases had score more than the average (53% of cases had depression and hopelessness on the binary division scale).

Table 4: Association between studied variables and depression, hopelessness

	Age	N	Mean	Std. Deviation	
Age	<20	54	9.8	1.7	0.001
	=>20	46	7.8	1.3	
Gender	Male	18	7.5	1.7	0.001
	Female	82	9.2	1.7	
Education	Primary	22	10.5	1.7	0.001
	Secondary	58	9.0	1.4	
	University	20	6.9	0.7	
Marital status	Single	82	9.1	1.8	0.001
	Married	10	7	1.1	
	Other	8	10	1.3	
Children	Yes	10	9	2	0.622
	No	90	8.9	1.8	
Occupation	Employee	28	7.5	1.6	0.001
	Unemployed	36	9.8	1.8	
	Student	36	9.1	1.3	
Residence	Urban	89	8.8	1.8	0.251
	Rural	11	9.5	2.1	

Category C:

The mean of difficulty in coping and dispirited is 12.96 ±2.7, with 49% of cases had score more than the average (49% of cases had difficulty in coping and dispirited on the binary division scale).

Table 5: Association between studied variables and difficulty in coping, dispirited.

	Age	N	Mean	Std. Deviation	
Age	<20	54	13.9	2.9	0.001
	=>20	46	11.7	1.9	
Gender	Male	18	10.4	1.8	0.001
	Female	82	13.5	2.6	
Education	Primary	22	15.1	3.5	0.001
	Secondary	58	12.7	2.0	
	University	20	11.0	1.6	
Marital status	Single	82	13.0	2.7	0.004
	Married	10	10.8	0.7	
	Other	8	15.0	2.3	
Children	Yes	10	13.6	3.1	0.914
	No	90	12.8	2.7	
Occupation	Employee	28	11.3	2.2	0.001
	Unemployed	36	14.5	3.1	
	Student	36	12.6	1.9	
Residence	Urban	89	12.8	2.6	0.149
	Rural	11	14.0	3.5	

Category D:

The mean of social dysfunction is 9.25 ±2.2, with 56% of cases had score more than the average (56% of cases had social dysfunction on the binary division scale).

Table 6: Association between studied variables and social dysfunction.

	Age	N	Mean	Std. Deviation	
Age	<20	54	10.6	1.6	0.001
	=>20	46	7.6	1.3	
Gender	Male	18	7.4	1.9	0.001
	Female	82	9.6	1.9	
Education	Primary	22	11.8	1.4	0.001
	Secondary	58	9.0	1.6	
	University	20	7.2	1.1	
Marital status	Single	82	9.4	2.1	0.001
	Married	10	7.0	0.7	
	Other	8	10.2	1.7	
Children	Yes	10	9.0	2.3	0.687
	No	90	9.2	2.1	
Occupation	Employee	28	7.6	1.7	0.001
	Unemployed	36	10.0	2.2	
	Student	36	9.7	1.5	
Residence	Urban	89	9.2	2.1	0.444
	Rural	11	9.7	2.3	

Rosenberg self-esteem scale:

Table 7: Association between studied variables and Rosenberg self-esteem scale.

			Normal 64		Low 36		
		Total no.	N	%	N	%	P value
Age	<20	54	24	44.4	30	55.6	0.001
	=>20	46	40	86.9	6	13.1	
Gender	Male	18	15	83.3	3	16.7	0.059
	Female	82	49	59.8	33	40.2	
Marital status	Single	82	57	69.5	25	30.5	0.029
	Married	10	5	50	5	50	
	Other	8	2	25	6	75	
children	Yes	10	6	64.4	4	35.6	0.781
	No	90	58	64.4	32	35.6	
Education	Primary	22	9	54.5	13	45.5	0.038

	Secondary	58	41	65.5	17	34.5	
	University	20	14	70	6	30	
Job	Employee	28	21	75	7	25	0.032
	Unemployed	36	17	47.2	19	52.8	
	Student	36	26	72.2	10	27.8	
Residence	Urban	89	58	65.2	31	34.8	0.489
	Rural	11	6	54.5	5	45.5	

DISCUSSION:

Acne is a common dermatological condition in adolescence and adults, but its effects on mental health are poorly understood.[29]

Fifty seven percent of cases had a score of GHQ more than average; this means that those patients were probable cases of psychiatric morbidity. Srivastava et al in India and Ahmed et al in Egypt found that (54%), (48%) had psychiatric morbidity respectively[32,33].

Female patients had more psychiatric morbidity than male patients in our study; various studies have also reported this concept[10,31]. This may be due to cosmetic concern, which could be more prominent in girls than in boys. [31]

The current study shows that those patients with children and those who live in urban area didn't differ significantly in terms of psychiatric morbidity from those patients without children or those who live in rural areas. This indicates that residence and having children have no influence on psychiatric morbidity among acne patients.

Regarding educational level among patients with acne, our study found that GHQ score is increasing with low educational level and this indicates high psychiatric morbidity among patients with low educational level. This was also found by Safizadeh et al in Iran[42] which may be contributed to the social status of educated patients enabling them to accept their disease and cope with its outcomes.

Regarding anxiety, worry and tension among acne patients , our study found that 61% of cases had anxiety , while in other studies like Shakoor et al in Pakistan [5] (82%), Radhi et al[34] in Iraq (52%), Aktan et al[61] in Turkey (24%) . This variation may be attributed to different scoring systems and to the fact that this study is the only one that utilized GHQ – 30 in assessment of anxiety among acne patients.

Regarding depression and hopelessness; this study found that 53% of cases had depression and hopelessness. Radhi et al[34] in Iraq found that 59% of patients with acne had depression, which is close to that of this study. While other studies like Ahmed et al[33] in Bangladesh and Aktan et al[35] in Turkey found (33%, 13%) of those patient with acne had depression

respectively. This variation can be attributed to different scoring systems and to the fact depression may be more common among Iraqi patients with acne.

Niemeier et al[36] in Germany showed that highly educated patients coped better with their acne and showed less subjective impairment. This was also seen in this study because 49% of acne patients had difficulty in coping and it was observed that as the level of education decreased the intensity of the psychological symptoms increased[36]. This may have been due to the patients' inability to deal with such problems and defective problem-solving skills which could be the result of less education.

Our study showed that 56% of patients had social dysfunction and decrease in daily activity. Hazarika et al[43] in India showed that 68% of patients reported that acne had affected their social activities.

Our study found that 36% of patients had low self-esteem which is close to that of Hosthota et al in India[37] (38%), and that the effects of acne were more emotionally damaging for female than male patients which is similar to that of Hassan et al [38] and Smithard et al[39] in UK.

Our study found that lower self-esteem was seen more in younger age-group which is unlike that of Hassan et al[38]in UK who found having acne was associated with lower self-esteem among older age group. This can be explained that younger patients in Iraq are more prone to being less secured emotionally and more concerned with their outer appearance, similar to that of Magin et al in Canada[40].

A lower educational level had a statistically significant association with low self-esteem, this were also found by Yarpuz et al in Turkey [30] ,this might be considered education as a factor enhances self-esteem.

Unemployment was also related to suffering from significantly lower self-esteem than being employed and/or a student. This can be attributed to the fact that employed patients enjoy more emotionally fulfilment and a sense of purpose in their lives which leads to having

more self-esteem. Similar results were found by Ahmed et al in Bangladesh[33].

Regarding marital status a significantly lower self-esteem was found among divorced and widowed patients, while being single and/or married had less impact on self-esteem which may be due to the fact that being married leads to being more secure emotionally and more life stability. This was also found by Shaikh et al in Turkey[41].

Residence and having children didn't significantly affect self-esteem among acne patients. Shaikh et al[41] also found that there was no statistical correlation observed between self-esteem and area of residence.

CONCLUSION:

Psychiatric morbidity was common among patients with acne vulgaris. Most of patients with acne had anxiety, depression and social dysfunction. Psychiatric morbidity and Low self-esteem are more among female, single, lower level of education, divorced, widowed and unemployed patients.

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