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*Original Research Article*

# Psycho-Social Aspects of Depressive Disorders in Infertile Patients in Baghdad

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## Abstract

Depressive disorders are common psychiatric disorders which introduced to identify people complaining from medical disorders, one of these is an infertility which cause physical and psychological morbidity.

To estimate psycho-social determinations of depressive disorders among the patients with infertility. The sample consists of 82 patients who are attended to an infertility unit in Al-Samaraey Teaching Hospital in Baghdad. DSM-V (diagnostic statistical mental health disorders) criteria applied, GHQ (general health questionnaire) and sociodemographic data were used for diagnosis, all the patients that not meet criteria excluded from the sample by using symptoms assessment questionnaire. Eighty-two patients with depressive disorders were identified in the infertility unit. Significant relationship was found among sociodemographic characteristics and the prevalence of depressive disorders was higher in female than male respectively Both the disease process and treatment of an infertile patients may affect the mental state of patients producing variety of symptoms, depressive disorders are the most common psychiatric disorders in an infertile patients, there is significant relation between depressive disorders and an infertile patients.

**Key Words:** Depressive disorders, persistent, aspects.

**Abbreviations: GHQ** (general health questionnaire**), DSM-V** (diagnostic statistical of mental disorders-vertion-five), **MDD** (major depressive disorder).

## الخلاصة

اضطرابات الاكتئاب: هي احد الاضطرابات النفسية الشائعة، تقدم في هذه الدراسة لتحديد الاشخاص الذين يعانون من الاضطرابات الطبية.احد هذه الاضطرابات هو العقم الذي يسبب حالات مرضية نفسية وعضوية ،الهدف من هذه الدراسة هي حساب المحددات النفسية، الاجتماعية لاضطرابات الاكتئاب بين المرضى المصابين بالعقم. العينة تتكون من اثنان و ثمانون مريضا الذين حظروا الى وحدة العقم في مستشفى السامرائي التعليمي في بغداد حسب معايير استخدمت منها استبيان الصحة العام والخصائص الاجتماعية الجغرافية للمرضى لغرض التشخيص. كل المراجعن الذين لا توجد لديهم علامات الاكتئاب تم استثنائهم من الدراسة. توجد علاقة وثيقة ومميزة بين الخصائص الاجتماعية الجغرافية للمرضى و بين انتشار اضطرابات الاكتئاب حيث كانت كبيرة وكانت اكثر في النساء منها في الرجال على التوالي. كلا عمليتي المرض و العلاج لمرضى العقم ربما اثرت على الحالة الذهنية مسببةً جملة من اعراض الاكتئاب وهي الغالبة في مرضى العقم و هناك علاقة وثيقة بين اضطرابات الاكتئاب مرضى العقم.

**الكلمات المفتاحية :** الاكتئاب، مرضى العقم، النفسية.

## Introduction

Infertility is inability to conceive after one year of regular unprotected intercourse in the absence of known reproductive pathology .female and male factors are associated. most of people will be affected by depression in their lives. It cannot be denied that an infertility is a

deeply distressing experience for many couples [1]. In latter part of twentieth century, psychogenic cause was an accepted topic in an infertility until when diagnostic abilities improved [2,3]. Edelmann et al found that infertility has a significant effect on psychological factors. Some authors have paid attention to the fact that health problems, loss of self-esteem, feeling akin to mourning, threat, sexual distress, depression, guilt, anxiety, frustration, emotional distress and marital problems are all associated with an infertility [4,5]. Overall percentage of psychological problem in an infertile couples range between 25 and 60%. Psychological difficulties of an infertile patients are complex and influenced by number of factors such as gender differences, cause and length of an infertility. In long lasting infertility and unsuccessful treatment cycles intensifies stress and psychopathologic problems especially depression [6,7]. Depression had a significant relation with cause of an infertility, educational level and job of women. Anxiety had a significant relationship with duration of an infertility and educational level, but not with cause of an infertility, or job. A study showed that anxiety and depression were most common after 4-6 years of an infertility and especially severe depression could be found in those who had an infertility for 7-9 years [7]. Another study showed those who had 2-3 years infertility had more depression/ anxiety than those who had this problem for a year or more than 6 years. Peak of depression could be seen during third year of an infertility. After six years there will be a reduction in psychological symptoms in women. During first three years, an infertility is accompanied by signs such as anxiety, depression, loss of self-esteem, impotence and maladjustment of marital status. After 3 years, the normal attitude would change to despair and at last there will be some emotional changes to adopt a child or live without one, thereafter. Those who have social support, positive personal characteristics, and have a satisfactory life with their spouse show no signs of anxiety/depression [7]. A number of studies have found that the incidence of depression in an infertile couples presenting for infertility treatment is significantly higher than in fertile controls, with prevalence estimates of major depression in the range of 15%-54% [8].

## Materials and Methods

The sample consists of 82 patients out of 200 persons who are attended to an infertility unit in Al-Samaraey Teaching Hospital, from 5/4/2015 till 6/11/2016. Informed consents were taken, from participants. DSM-V criteria applied, GHQ and sociodemo-graphic data were used for diagnosis, all the patients that not meet criteria were excluded from the study, by using symptoms assessment questionnaire. The study group with depressive disorders were identified among infertile subjects in the infertility unit were diagnosed, Some patients of this study had suicidal ideation were thoughts about how to kill oneself, of two types, active and passive ,the active one is an existing wishes to die accompanied by a plan for how to carry out the death. academic psychiatrists to evaluate the positive and negative symptoms (positive and negative symptoms scale) were used.

**Statistical analysis:**

All statistical analysis were performed using Chi-square test. Relations among the categorical variables were investigated by Chi-square test, p-values less than or equal to 0.05 were considered statistically significant.

**Table 1:** Distribution of patients according to age and sex

| Age in years | Female | % | Male | % |
|---|---|---|---|---|
| 15-24 | 6 | 12 | 4 | 14 |
| 25-34 | 26 | 48 | 14 | 51 |
| 35-44 | 16 | 29 | 8 | 28 |
| 45-54 | 6 | 11 | 2 | 7 |
| Total | 54 | 100 | 28 | 100 |

**Table 2:** Distribution of depressive disorders according to education, occupation,income factors and presence of depressive disorders**.**

| | | Presence of depressive disorders | | | | | |
|---|---|---|---|---|---|---|---|
| | | Positive | | Negative | | Total | |
| | | No. | % | No. | % | No. | % |
| Educational level | Primary | 26 | 31.7 | 28 | 23.7 | 54 | 27.0 |
| | Secondary | 40 | 48.8 | 40 | 33.9 | 80 | 40.0 |
| | Higher | 16 | 19.5 | 50 | 42.4 | 66 | 33.0 |
| | Total | 82 | 100 | 118 | 100 | 200 | 100 |
| Occupation | Employed | 22 | 29.8 | 54 | 45.8 | 76 | 38.0 |
| | Housewife | 46 | 56.1 | 24 | 20.3 | 70 | 35.0 |
| | Laborer | 14 | 17.1 | 40 | 33.9 | 54 | 27.0 |
| | Total | 82 | 100 | 118 | 100 | 200 | 100 |
| Income | Not enough | 28 | 34.1 | 28 | 23.7 | 56 | 28.0 |
| | Enough | 54 | 65.9 | 90 | 76.3 | 144 | 72.0 |
| | Total | 82 | 100 | 118 | 100 | 200 | 100 |

Educational level $X^2 = 5.741$ df:2 P=0.057
Occupation $X^2 = 13.656$ df:2 P=0.001
(Highly statistical significant)

**Table 3:** Distribution of depressive disorders according to education, occupation and income factors.

| | | types of depressive disorders | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Other specified depressive disorder** | | **Persistent depressive disorder** | | **Major depressive disorder** | | **Total** | |
| | | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| **Educational level** | **Primary** | 6 | 37.5 | 8 | 22.2 | 6 | 40.0 | 13 | 31.7 |
| | **Secondary** | 8 | 50 | 16 | 44.4 | 16 | 53.3 | 40 | 48.8 |
| | **Higher** | 2 | 12.5 | 12 | 33.3 | 2 | 6.7 | 16 | 19.5 |
| | **Total** | 16 | 100 | 36 | 100 | 30 | 100 | 82 | 100 |
| **Occupation** | **Employed** | 4 | 25 | 12 | 33.3 | 6 | 20 | 22 | 26.8 |
| | **Housewife** | 8 | 50 | 18 | 50 | 20 | 66.7 | 46 | 56.1 |
| | **Laborer** | 4 | 25 | 6 | 16.7 | 4 | 13.3 | 14 | 17.1 |
| | **Total** | 16 | 100 | 36 | 100 | 30 | 100 | 82 | 100 |
| **Income** | **Not enough** | 6 | 37.5 | 10 | 27.8 | 12 | 40 | 28 | 34.1 |
| | **Enough** | 10 | 62.5 | 26 | 72.2 | 18 | 60 | 54 | 65.9 |
| | **Total** | 16 | 100 | 36 | 100 | 30 | 100 | 82 | 100 |

Educational level $X^2=4.289$ df=4 P=0.368
Occupation $X^2=1.445$ df=4 P=0.836
Income $X^2=0.593$ df=2 P=0.743

**Table 4:** Distribution of depressive disorders according to type of an infertility

| Type of infertility | Presence of an depressive disorders | | | | | |
|---|---|---|---|---|---|---|
| | Positive | | Negative | | Total | |
| Primary | 66 | 80% | 94 | 79.7% | 160 | 80% |
| Secondary | 16 | 19.5% | 24 | 20.3% | 40 | 20% |
| Total | 82 | 100% | 118 | 100% | 200 | 100% |

$X^2 = 0.01$ df = 1 P = 0.919

**Table 5:** Distribution of depressive disorders according to duration of an infertility

| Duration of infertility | Presence of depressive disorders | | | | | |
|---|---|---|---|---|---|---|
| | Positive | | Negative | | Total | |
| 1-7 | 70 | 85.4% | 104 | 88.1% | 174 | 87% |
| 8-14 | 12 | 14.6% | 14 | 11.9% | 26 | 13% |
| Total | 82 | 100% | 118 | 100% | 200 | 100% |

$X^2 = 0.164$ df = 1 P = 0.685

**Table 6:** Distribution of types of depressive disorders according to duration of infertility

| Duration of infertility | Types of depressive disorders | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Other specified depressive disorders | | Persistent depressive disorders | | Major depressive disorders | | Total | |
| 1-7 | 14 | 87.5% | 28 | 77.8% | 28 | 93.3% | 70 | 85.4% |
| 8-14 | 2 | 13.5% | 8 | 22.2% | 2 | 6.7% | 12 | 14.6% |
| Total | 16 | 100% | 36 | 100% | 30 | 100% | 82 | 100% |

$X^2 = 1.621$ df = 2 P = 0.445

**Table 7:** Distribution of death wishes and suicidal ideas according to type of infertility

| Type of infertility | Suicidal idea | | | | | | Death wishes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Positive | | Negative | | Total | | Positive | | Negative | | Total | |
| Primary | 4 | 100.% | 156 | 79.6 % | 160 | 80% | 32 | 84.2 % | 128 | 79% | 160 | 80% |
| Secondary | 0 | 0% | 40 | 20.4 % | 40 | 20% | 6 | 15.8 % | 34 | 21% | 40 | 20% |
| Total | 4 | 100% | 196 | 100 % | 200 | 100 % | 38 | 100% | 162 | 100 % | 200 | 100 % |

$X^2 = 0.260$ df = 1 P = 0.610

## Results and Discussion

Sociodemographic characteristics, gender and age of groups ($p<0.05$) as shown in tables (1,2) further significant relationship was found among sociodemographic characteristics and the prevalence of depressive disorders was higher in female than male .In present study the most common age groups in our sample were among the ages 25-34 years and the highest rate of the presence of depressive disorder were among these age groups (tables 1,2). Also our study showed that the highest rate of depressive disorders was in the intermediate educational level group (48.8%), while the highest rate of subjects without affective disorders was at higher educational level group (42.4%), and the relationship was close to be significant (i.e. P = 0.057).Also the rate of depressive disorders was more in housewives (56.1%), while the highest rate

of those who are free from depressive disorders (45.8%) was in an employed, and the relationship was highly significant (P=0.001). It seems that working outside home is important in reducing the psychological distress especially the adjustment disorders (Tables 3,4). Present study also revealed no significant relationship between depressive disorders and duration of an infertility. In one study done, relationship between depression and anxiety and duration of an infertility in which the age range 17-45 years and duration of an infertility 1-20 years. This survey showed that 171 women (40.8%) had depression and 321 women (86.8%) had anxiety (Tables 5,6,7). Other studies showed that the depressive disorders were improved in an infertile women and their age and duration of infertility progressed [9-11]. A study done by Ranazanzadeh et al [11] found out that the most common age group for depressive disorders was 21-25 years and had negative correlation with education (in other words, with the raise of education level, the depressive disorders, decrease), also the other studies showed that the duration of infertility had significant relationship with depressive disorders [10,11]. This study revealed that the rate of depressive disorders in an infertile subjects was (41%). Many studies show that depressive disorders is common consequence of infertility and prevalence estimates of depressive disorders in the range of 15%-54% (Domar, Demythenaere, Lukse, Oddens et al, Mitsubishi et al, Anderson et al, Parich Chen). In our study and among the depressive subjects, infertile females constituted 54 (65.9%) compared with 28 (34.1%) among the male (i.e. p = 0.008), this means that in infertile subjects, the rate of depressive disorders was significantly more in female than the male [10,11]. This in general, resembles the results of many other studies like (Nachting et al, Wright, Greil). Among the female subjects, our study revealed that the rate of depressive disorders was 54%, compared to 28% of male infertile subjects. The more frequency of depressive disorders in an infertile women than infertile men may be contributed to that females may receive negative reaction from their husbands, their husbands families, and social groups [11]. Also in the Islamic and eastern countries as in Iraq the family status especially childbearing is very important and vital factor for women, Freeman et al found that half of their sample of infertile couples described an infertility as the most upsetting experience of their lives, whereas 80% of the sample reported by Mahlstedtet et al described their experience of an infertility to be either stressful or very stressful. therefore the absence of children may cause divorce or even second marriage which is possible for men to marry more than one woman, and therefore it is a cause of psychological problems like death wishes and suicides for infertile women.

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