Assessment of Psychological status of Infertile Women in Erbil Kurdistan Region

تقييم الحالة النفسية للنساء العقيمات في اربيل (كردستان العراق)

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الخلاصة:

الهدف: أجريت هذه الدراسة لتقييم الحالة النفسية للنساء المصابات بالعقم.

المنهجية: تم إجراء دراسة وصفية على 200 امرأة مصابة بالعقم من الذين يحضرون إلى مركز العقم في مدينة أربيل للفترة من 2 شباط 2005 إلى 6 نيسان 2005.وأظهرت هذه النتائج أن (68٪) من النساء المصابات بالعقم لديهن ارتفاع مستوى القلق.

النتائج. القلق هو من اهم المشاكل النفسية التي والأكثر شيوعا، ومعظم النساء (49٪) منهم كانوا يعانون من العقم لديهم حالات الاكتئاب. وكان هنالك نسبة عالية من النساء المصابات بالعقم لديهن الاضطرابات النفسية (مستوى غير طبيعي للاكتئاب والقلق وتدني احترام الذات).

التوصيات: أوصت الدراسة بأن يهتم بإنشاء مركز للعقم بدرجة عالية من التخصص لتوفير علاج العقم والإرشاد النفسي لجميع النساء المصابات بالعقم.

الكلمات الدالة: العقم، المرأة، القلق، الاكتئاب

ABSTRACT

Objective*:* This study was conducted to assess the psychological status on infertile women.

Methods: A descriptive study was conducted on 200 infertile women who attending to infertility center in Erbil City since the period of 2nd February 2005 to 6th April 2005.

Results: These results showed that (68%) infertile women were having higher level of anxiety. Anxiety is the psychological problems which have been most commonly investigated, most of the infertile (49%) women had a depression.

Conclusion*:* There were high percentage of infertile women had psychological disturbances (abnormal level of anxiety, depression, and low self-esteem).

Recommendation*:* the study recommended that Establish highly specialized infertility center to provide infertility treatment and psychological counseling to all infertile women.

Keywords: Infertility, Women, Anxiety, depression

INTRODUCTION:

Infertility is one of great problems of society in the world because the children are the best fortune for human being. Infertility was a females problem as well as a male problem[1.]

More and more infertile women ask for medical help. Reproductive medicine was often considered as the answer to the problems of infertile women. Sometimes under various conditions by specific indications, help is available, but more than half of the people seeking medical help, despite intensive treatment remain childless. In addition, women who have undergone the interventions of reproductive medicine often express negative psychosocial as well as physiological side-effects from stimulation, IVF (in vitro fertilization), particularly when left without psychological support during and after (unsuccessful) infertility treatment[2, 3] .

Childlessness may be a tragedy to the married women, and can be a cause of marital upset as well as of personal unhappiness and ill health. For that reason, there is a strong relationship between emotional distress and infertility, which has been studies by several authors [4, 5.] .

For stressors and related emotions, it is important to know that they change according to the duration of infertility; There is a strong agreement that emotional distress for the infertile women may arise from the unsuccessful attempts to conceive a baby[6], as well as from the long diagnostic and therapeutic procedures required[7,8]. Infertility is one of a great problems of society in the world Including in Kurdistan – Iraq because the child is the best fortune for human being also they think infertility related to the women only and the man repudiate, sometimes he is going to be remarried but he failed to conceive his wife.

The major difficult**ies** facing patients during infertility is anxiety[9], while couples whose treatment was unsuccessful are instead at risk of depression[10].

Although the infertility has been studied in many countries, few studies have been made about the psychosocial aspect of infertile women. As a nurse our attention should be directed toward the infertile women as a unit of care, it is important to assess their psychological problems through this study.

AIMS

1. To assess psychological and social status of infertile women.
2. To find out the effects of infertility on the occurrence of its level of anxiety, depression, low self-esteem and social status.
3. To determine the relationships between the psychosocial status and socio-demografic characteristic.

METHODOLOGY:

Descriptive study was conducted to assess the psychological status of infertile women at infertility center in Erbil city. Data was collected during the period of 2nd February 2005 to 6th April 2005.The study has been conducted at Erbil infertility center.

It was comprised of infertile women who attended the infertility centers in Erbil Governorate from different parts of the region which included Sulaimania, Duhok, Karkuk Governorate, and different township subordinate to those Governorates. A purposive sample of (200) women with infertility were selected from the early stated center. Hospital Anxiety and Depression Scale (HADS). This questionnaire**s** originally developed by[11]. Moreover, the Rosenberg Self-Esteem Scale (RSES). This questionnaires originally developed. [12].

The questionnaires consisted of three parts the first part deals information regarding; age (wife and husband) -age of marriage, infertile duration, Level of wife and husband education, Occupation of wife and husband, Residential area, housing ownership, family type and monthly income, drinking alcohol and smoking, chemical exposure information related to drugs and past medical history. The second part contains Psychological Domains from HADS; this part include**d** three domains, which are described as follows,

Anxiety, depression and low self-esteem Scale

A. psychological Domains from HADS;

This part include three domains, which are described as follows,

A. Anxiety and Depression

A.1. Anxiety: This domain was measured through (7) items which the patient is asked to choose one response from the four given for each interview.

A.2. Depression: This domain was measured through (7) items. Which the patient is asked to choose one response from the four given for each interview.

Scoring: Score items **a.** through **d.** with values of (**0**) through (**3**).those items followed by an **R** should be reversed when scoring (**a**. through **d**. with values of **3**. through **0**.)
Scoring (add the AS = Anxiety. Add the DS = depression): below will give you an idea of the level of Anxiety and Depression. 0 – 7 = Normal, 8 – 10 = Borderline abnormal, 11 – 21 = Abnormal

A.3. Self- Esteem

This domain was measured through (10) items using 4 likert Scale Strongly agree, Agree, Disagree , and Strongly disagree. To score the items, assign a value to each of the (10) items as follows:

- For items **1,2,4,6 and 7:**

Strongly agree = 3, Agree = 2, Disagree = 1 and Strongly disagree = 0.

- For items **3,5,8,9 and 10** (which are reversed in valence):

Strongly agree = 0, Agree = 1, Disagree = 2 and Strongly disagree = 3.

Scoring (add the SS below will give you an idea of the level of Self-Esteem :
The scale ranges from 0 - 30. Scores 'between' 15 to 25 are within normal range; Scores 'between' 25-30 are within high self-esteem, scores below 15 suggest low self- esteem.
NOTE: the result of the study found that there is no score 'between' 25-30 for that reason the level of high self-esteem didn't mention in the tables.

Part III: B. Social Aspect: This part is constructed for the purpose of the study throughout a review of relevant literature.

This domain was measured through (12) items which include personal and marital relationship Using 4-level likert rating scale always , some times, often , Never . They were rated and scored as (0 for always), (1 for some times), (2 for often) , (3 for Never). And the Reversed items scored (3 for always),(2 for some times),(1 for often), (0 for Never).
The scale ranges from 0 - 30. Scores between 15-25 are within moderate range; Scores between 25-30 are within moderate range; Scores below 15 suggests abnormal.

RESULTS:

Table1. Distribution of infertile women regarding the demographic data (Age of marriage, age sample, infertile level of Education and Infertile duration

Variables		F (%)
Age of marriage (years)	**13-18**	**86 (43%)**
	19-24	74 (37%)
	25-30	33 (16.5%)
	31-36	7 (3.5)
	Total	200 (100%)
Age sample (years)	14-24	49(24.5%)
	25-31	**89(44.5 %)**
	32-44	48(24 %)
	45>	14 (7 %)
	Total	200(100%)
Infertile level of education	**illiterate**	**115 (57.5%)**
	Read and write	26 (13 %)
	Primary	39 (19.5 %)
	Secondary	13 (6.5 %)
	Preparatory	4 (2 %)
	Institute	5 (2.5 %)
	Total	200 (100%)
Infertile duration (years)	3-7	13 (6.5%)
	8-12	**77 (38.5%)**
	13-17	70 (35%)
	18-22	27 (13.5%)
	23-27	13 (6.5%)
	Total	200 (100%)

Table 1 shows that the greater number of infertile women (44.5%) that were at age group (25-31) years old, also shows that the most of infertile women (43%) were married at age that ranged between (13-18) years old. About infertile duration, the table indicated that (38.5%) had infertility duration ranged between (8-12) years. The most of infertile women (57.5%) were illiterate. While the majority of the infertile women (94%) were housewives. and the majority of these women (90.5%) were living at the urban area.

Table No. (2) Frequency and percentage of psychological domain regarding to the total infertile women sample

Anxiety						Depression						Self-Esteem				TOTAL
Abnormal		Borderline		Normal		Abnormal		Borderline		Normal		Low		Normal		
Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	
136	**68**	51	25.5	13	6.5	98	**49**	67	33.5	35	17.5	162	**81**	38	19	200

This table shows that the degree of abnormality of psychological domain (68%) of Anxiety, (49%) of Depression, (81%) of Self-esteem.

Table (3) Relationship between psychological aspects and age of infertile women

Psychological Aspect / Age of wife	Total		Anxiety						Depression						Self-Esteem			
			Abnormal		Borderline		Normal		Abnormal		Borderline		Normal		Low		Normal	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
18-24	49	24.5	37	18.5	10	5	2	1	18	9	15	7.5	16	8	38	19	11	5.5
25-31	**89**	**44.5**	59	**29.5**	23	11.5	7	3.5	47	**23.5**	28	14	14	7	64	**32**	25	12.5
32-38	48	24	31	15.5	13	6.5	4	2	26	13	18	9	4	2	37	18.5	11	5.5
39-45	14	**7**	9	4.5	5	2.5	0	0	7	3.5	6	3	1	0.5	9	4.5	5	2.5
Total	200	100	136	68	51	25.5	13	6.5	98	49	67	33.5	35	17.5	148	74	52	26
Chi-Square P- Value			P-value=0.832 $\chi^2 = 4.273$ d.f.=8 $\chi^2_{tab.}=15.507$						P-value=0.026 $\chi^2 =17.242$ d.f.=8 $\chi^2_{tab.}=15.507$						P-value=0.439 $\chi^2 =3.760$ d.f.=4 $\chi^2_{tab.}=9.488$			

This table shows that the highest percentage is (44.5%) they are in age group (25-31), of total sample. (29.5%) of abnormal level in anxiety, (23.5%) of abnormal level in depression, (32%) of Low level in Self-esteem, (4.5%) of abnormal level in Anxiety, (3.5%) of abnormal level in Depression, (4.5%) of low level in Self-esteem. Moreover, there are significant relation between Depression and the age of wife.

Table (4) Relationship between psychological aspects and age of marriage

Psychological aspect / Age of marriage	Total		Anxiety						Depression						Self-Esteem			
			Abnormal		Borderline		Normal		Abnormal		Borderline		Normal		Low		Normal	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
13-18	86	43	64	32	20	10	2	1	40	20	32	16	14	7	66	33	20	10
19-24	74	37	45	22.5	21	10.5	8	4	39	19.5	21	10.5	14	7	56	28	18	9
25-30	33	16.5	22	11	8	4	3	1.5	14	7	13	6.5	6	3	23	11.5	10	5
31-36	7	3.5	5	2.5	2	1	0	0	5	2.5	1	0.5	1	0.5	3	1.5	4	2
Total	200	100	136	68	51	25.5	13	6.5	98	49	67	33.5	35	17.	148	74	52	26
Chi-Square P- Value			P-value=0.342 χ^2=6.778 d.f.=6 $\chi^2_{tab.}$=12.592						P-value=0.733 χ^2=3.580 d.f.=6 $\chi^2_{tab.}$=12.592						P-value=0.232 χ^2=4.291 d.f.=3 $\chi^2_{tab.}$=7.815			

The results out of this table depicted that the majority ages of marriage in total sample (43%) are in group (13-18) years. (32%) of abnormal level in anxiety, (20%) of abnormal level in depression, (33%) of Low level in Self-esteem level, (2.5%) of abnormal level in anxiety, (2.5%) of, (1.5%) of low level in Self-esteem. In addition, there are no significant relations between the psychological domain and the age of marriage.

Table No. (5) Relationship between psychological aspects and age of infertile duration

Psychological aspect / Infertile Duration	Total		Anxiety						Depression						Self-Esteem			
			Abnormal		Borderline		Normal		Abnormal		Borderline		Normal		Low		Normal	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
3-7	111	55.5	77	38.5	25	12.5	9	4.5	50	25	33	16.5	28	14	81	40.5	30	15
8-12	50	25	34	17	12	6	4	2	28	14	15	7.5	7	3.5	37	18.5	13	6.5
13-17	30	15	19	9.5	11	5.5	0	0	14	7	16	8	0	0	22	11	8	4
18-25	9	4.5	6	3	3	1.5	0	0	6	3	3	1.5	0	0	8	4	1	0.5
Total	200	100	136	68	51	25.5	13	6.5	98	49	67	33.5	35	17.5	148	74	52	26
Chi-Square P- Value			P-value=0.640 χ^2=6.066 d.f.=6 $\chi^2_{tab.}$=15.507						P-value=***0.028*** χ^2=17.226 d.f.=6 $\chi^2_{tab.}$=15.507						P-value=0.882 χ^2=1.177 d.f.=3 $\chi^2_{tab.}$=9.488			

This table shows that the large numbers of infertile duration in total sample (55.5%) are in group (3-7) years, (38.5%). of abnormal level in anxiety, (25%) of abnormal level in depression, (40.5%) of Low level in Self-esteem, (3%) of abnormal level in anxiety, (3%) of abnormal level in depression, (4%) of low level in Self-esteem. In addition there are no significant relations between the anxiety, self-esteem, but there is a high significant between Depression and the infertile duration.

DISCUSSION:

The result of the study reveals that most of the infertile women (44.5%) their age ranged between (25-31) years old (Table 1), this might be due to the reproductive age and the desire to pregnant and to have a child. Concerning, these findings coincide with the findings [13] who reported that most common age of infertility centered around (25-34) group. The infertile women age at marriage, most of them (43%) were married at age of (13-18) years old. (table.1) this was considering early age for women to have marriage at some societies but in our society, it is an acceptable age for women to have marriage, and it is considered the most productive age to have a child.

The study had depicted that highest percentage (38.5%) of those women had duration of infertility about (8-12) years (table 1). This provided an evidence that currently married couples who had no babies and they didn't use birth control or contraceptives they wait for two years or less to do the investigations to know the cause of infertility it mean's had a desire to wait for a long time to having pregnancy.

Related to their education, the study had depicted that majority of the infertile women (57.5%) were illiterate and (19.5) of them had primary school graduate. (Table 1). Such a low level of education was an indicator for these individuals, and the reason related to our social believes about female education. Where many families do not allowed the female to attend or join schools.

The results of the study showed that the majority of the infertile women (94%) were housewives (table 1). Those high numbers of housewives women related to our society which encourages the women to be a housewife and give care to their family and children finding of the study showed that the majority of the infertile women (90.5) were living in the urban area. (Table1).

In regard to psychological domain, Table (2) showed that (68%) of the whole sample have abnormal anxiety and (25.5%) had borderline anxiety. These results showed that infertile women were more likely to have higher level of anxiety. Since anxiety is the psychological problems which have been most commonly investigated, this result was supported [5]. Who reported that anxiety and depression were frequently observed in infertile women compared to controls? [10] Reported that the psychological problems which have been most commonly investigated are anxiety; because of the stressful nature of the treatment procedures and because of the fear that treatment will fail. [14] In his study showed that infertile women are more enhanced vulnerability to anxiety. There is also some evidence that women become more anxious when their levels of estrogen and progesterone are low.

Regarding depression table 2 shows that most of the infertile women had abnormal level of depression. (49%) of infertile women had abnormal depression and (33.5%) had borderline depression[13], reported that the women as a whole appeared to display a higher degree of depression from the infertility problem. Indicating a distribution of roles in the couples such that the women carried more of the emotional burden involved in an unfulfilled desire for a child and embarked on medical diagnosis and therapy earlier than they carried the men. The women appear to have higher rates of depression than fertile women. [5, 10]

The finding of the study had depicted that the vast majority of the infertile women had low self- esteem (81%),(Table 2), With respect of the infertile women self-esteem, most of them were concerned about losing their real values, being useless and isolated, and unsatisfied about their health to some extent[6]. Results of the study indicate that there are differences in the degree of the psychological aspect in relation to anxiety, depression,

low self-esteem in infertile women, and their age groups, (table 3). A statistical significant relationship was found between psychological aspects and infertile women of age group (25-31) years, while (29.5%) had abnormal anxiety (23.5%) had depression (32%) had low self-esteem, The psychological problem increased around this age because this might be due to the reproductive age(motherhood age) and the women desire to be a mother and have a child. [15] Reported that the results of the demographic and health survey of Nigeria indicate that approximately four percent of women aged 30 years and above have never borne a child, in addition 20% percent of women have psychological problem because of limited treatment options available for infertile couples[16]. The study found that the majority of the infertile women (43%), (37%) had married at the age of (13-18), and (19-24), respectively (table 4), there are no significant relationships between those ages of marriage and psychological aspect. This relation may be related to the women's idea about her age that she is young and still able to have a child later. This finding is supported by[17] who found that the women married at age (14-25) years in the rural and urban parts of the local Government Area (LGA).

The study revealed that the majority (55.5%) of the infertile duration ranged between (8-12) years of total sample. (38.5%) had anxiety and (25%) had depression, (40.5%) of the sample had low self-esteem. (Table - 5), the table shows that there is a significant relation between depression and duration of infertility but there are no significant relation between infertile duration and anxiety, and self-esteem, These finding are similar to those of[18] who reported in his study of a survey of relationship between anxiety, depression and duration of infertility showed that age range was (17–45) years and duration of infertility was (3–10) years. This survey showed that 151 women (40.8%) had depression and 321 women (86.8%) had anxiety. Depression had a significant relation with duration of infertility, other findings showed that anxiety and depression were most common after (4–6) years of infertility and especially severe depression could be found in those who had infertility for (7–9) years.

In regard to the educational level, the study findings showed that the majority (57.5) of the infertile women were illiterate educational level (table 2) this result had a significant relation with low Self-esteem but no significant relation with anxiety, and depression. The educational level in this region (Kurdistan) is very low that is related to the previous regimen in Iraq especially in Kurdistan, Results of different studies about relationship of education with anxiety and/or depression were not similar. Educational level has no significant relationship with depression and/or anxiety [17]. Another study showed that there was positive correlation between them.[18]. In such closed societies as some parts of our country, education and job may be the lone gate leading women to joyful aspects of their life other than maternity. This is why education plays a considerable role in decreasing their depression/anxiety.[19] The finding of the study revealed that the majority (93%) of the infertile women were housewife . this study revealed that housewife infertile women were more affected by psychological problem. [20] Presented clear evidence to support the finding that housewife infertile women more contact with grandchildren, and had negative feelings from time to time led to problems with relationships, and then can also place a strain on relationships with family and friends. Also pressures at home and worries about investigation and treatment expenses. Having a job may reduce stress [21]. In our study, abnormal level of anxiety and/or depression was observed more in housewives .It seems being at work outside home decreases psychological signs of anxiety and depression.

This study finding that the majority (90.5%) of the infertile women were coming from urban areas (table 1) these results had a significant relation with low self-esteem, but not significant with abnormal level of anxiety, depression.

The study showed that the majority (53%), of the infertile women had somehow sufficient and (41%) insufficient family income. those results have a great impact on psychological aspect of infertile women especially low self-esteem. There are a high significant relationship between low self-esteem {p-value = 0.005} with family income, also a great number of low-level income of infertile women had anxiety and depression.

There are a study improve that high-level income among infertile women had less psychological problem than low-level income.[22]Reported that infertile couples with low income who have undergone the interventions of reproductive medicine often express negative psychological as well as physiological side effects from stimulation.

CONCLUSION:

1. The study findings showed that high percentage of infertile women had psychological disturbances (abnormal level of anxiety, depression, and low self-esteem).
2. The study confirmed that psychological problems are more increase with age of wife.
3. The study found that there is a highly significant relation between depression and infertile duration.
4. There is high significant relationship between wife education and residential area with self-esteem.
5. The study had confirmed that low education created more impact upon psychological aspect of infertile women.

RECOMMENDATION:

Ministry of Health (MOH) should perform the following:

1. Establish highly specialized infertility center to provide psychological counseling to all infertile women.
2. Provide the infertility center by a competent counselor or nurse to assist the infertile women during attending the center and follow them by home visiting to have psychological problem solution.
3. An intervention and education oriented counseling program can be designed, constructed and administered to the infertile women and their husband.
4. The study recommended that the similar studies should be carried out about the different subjects related to infertile women.

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