

Depression among infertile attending an infertility clinic in Ramadi teaching hospital for maternity and childhood, Iraq.

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Abstract

Background: Infertile individuals have greater levels of anxiety, stress, and depression. Major depressive disorder is a debilitating disease characterized by depressed mood, reduced interests, and impaired cognitive function. Individuals' health and quality of life may be compromised by depression. **Objective:** Study the association between depression and infertility among men and women. **Methodology:** A cross-sectional observational study was done in an infertility clinic. The study was conducted in the period from January to June 2022. The diagnosis of depression was done according to (B.D.I) questionnaire, DSM5 criteria were utilized beside a questionnaire designed for the purpose of the study to collect data about the participants. **Results:** A sample of 99 infertile cases was studied. Normal cases constituted 36.4% of the sample and the remaining 63.6% were having a degree of depression. Most of the cases were in the age group 36-45 years old. The highest prevalence of depression was found in the age group 46-50 years (85.7%). The highest rate was 65.6% among those with infertility of 24 months and more. Cases who had an abortion had the highest rate of depression (61.5%). **Conclusion:** There was a high rate of depression among infertile men and women; these people require special attention to get over this issue.

Keywords: infertility, depression, Ramadi city.

1. Introduction

Infertility is "a disorder of the reproductive system defined by the failure to obtain a clinical pregnancy after 12 months or more of frequent unprotected sexual intercourse (1). this period of time decreases to six months for women over the age of 35 years (2). Primary infertility refers to a woman who has never given birth and is unable to conceive even after a year of not using birth control. A woman can experience secondary infertility when she is unable to conceive after at least one successful pregnancy (3,4).

Being unable to conceive or bear children can lead to social exclusion or divorce and may have negative effects on one's physical, mental, or other health, including poor pregnancy outcomes (5,6).

One of life's greatest stressors, with implications for psychology, society, and culture. For instance, infertile individuals have greater levels of anxiety, stress, and depression, and numerous authors have highlighted the detrimental effects of infertility and its therapies on these disorders (7).

Women in infertile marriages are more likely to blame themselves for their infertility, have lower self-esteem, are more unhappy, report lower life satisfaction, and view childlessness as unacceptable than males (8).

One in six persons will experience a major depressive disorder at some point in their lifetime, with women experiencing it nearly twice as frequently as men.

Major depressive disorder is a debilitating disease characterized by vegetative symptoms such as interrupted sleep or hunger as well as cognitive symptoms like depressed mood, reduced interests, and impaired cognitive function (9).

Individuals' health and quality of life may be compromised by depression. A systematic review and meta-analysis were undertaken to look into the prevalence of depressive symptoms among infertile women, taking into account the role and influence of depression on responses to infertility therapies (10,11,12).

Researchers think that may be because depression can make people less interested in sex. In addition, there's some evidence that medications used to treat depression may affect the chances of having a healthy pregnancy (13).

This study aimed at studying the association between depression and infertility among men and women and looking into potential risk factors.

2. Methodology

A cross-sectional observational study was done at an infertility clinic in Al- Ramadi Teaching Hospital for maternity and childhood, Iraq. The study was conducted in the time period from January to June 2022. Patients attending the infertility clinic for medical advice were invited to participate in the study after giving them a full explanation of the study and its purpose. Informed consent was taken from all cases prior to their participation in the study.

Cases aged between 18 years and 50 years who had infertility for more than six months were eligible to participate in the study.

The diagnosis of depression was done according to Beck Depression Inventory Scale (B.D.I), DSM5 criteria. A questionnaire involving special designs related to demography as well as the issue of infertility. The examined cases were classified into normal and depressed patients. Those with depression were further classified according to the severity of depression into mild, moderate, and severe depression (14).

A verified Arabian translation of the BDI was used. A complete 21-item BDI was given. This scale is a commonly used indicator of depression and its severity. Each item describes certain depressive behavioral symptoms. Each item has a possible score that ranges from zero (no depression symptoms) to three (significant level of symptoms). Thus, the total scale scores could be between 0 and 63. The presence of clinical depression is indicated by scores of 10 or higher. The following scores are used to classify depression status: 0–9 (without depression); 10–18 (mild depression); 19–29 (moderate depression); and 30–63 (severe depression) (15).

DSM-5 Diagnostic Criteria is the final dependent categorization for depression, and it provides the following criteria for diagnosing depression. A minimum of five symptoms must be present for at least two weeks, and at least one of those symptoms must be either a sad mood or a lack of interest or pleasure.

Depressed mood most of the day. A slowing down of thought and a reduction of physical movement (observable by others, not merely subjective feelings of restlessness or being slowed down). Fatigue or loss of energy nearly every day. Feelings of worthlessness or excessive or inappropriate guilt nearly every day. Diminished ability to think or concentrate, or indecisiveness, nearly every day. Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

These symptoms must cause the person clinically substantial distress or impairment in social, and occupational (14).

All participants were invited to fill in a questionnaire prepared for the purpose of this study. The data collected were about age, gender, job title, duration of infertility, and obstetrical history.

Ethical issue: Ethical approval was taken from the Anbar Research Committee.

Statistical issue: collected data were checked for accuracy and completeness by coding them into the

Statistical Package for Social Sciences system (SPSS). Data represented in raw counts and percentages, grouped and tabulated. Chi-squared test was calculated to show the associations between variables. A p-value level of less than 0.05 was considered significant for the purpose of the study.

3. Results

A total of 99 participants: 36(36.4%) male and 63(63.6%) female, with a female-to-male ratio of 1.75:1. They were submitted to a scoring system for rating the degree of depression, 36(36.4%) were normal, 14(14.1%) were with a mild degree of depression, 22(22.2%) were of a moderate degree of depression, 27(27.3%) were severe (Figure-1).

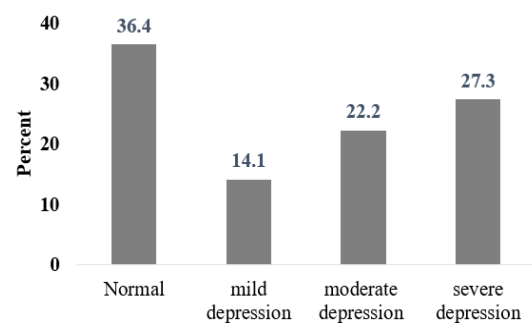


Figure 1: Distribution of study sample according to depression status.

Figure -2 represented the age distribution of the study sample, it showed that 50.5% of the cases were located in the middle age group. Still young age group (below 35 years of life) attends the clinic at a reasonable rate (42.4%).

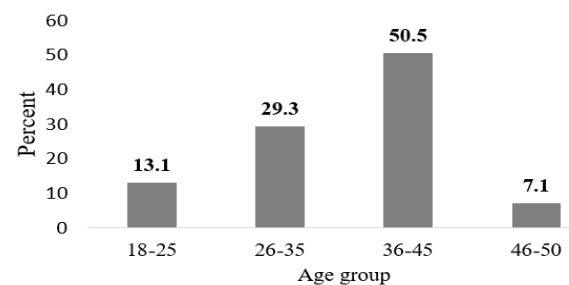


Figure 2: Distribution of cases according to age group.

Most of the depression diagnosed cases were of severe type 27 cases 42.9% (8 cases were men and 19 cases were female), followed by moderate type 22 cases 34.9% (13 cases were women and 9 cases were men). At the last, came mild type at 14 cases 22.2% (6 cases were men and 8 cases were women). There was no significant association between the severity of depression and gender, p-value = 0.968 (Table 1).

Table 1: Distribution of cases according to the presence of depression and gender.

Gender	Normal	Depression			Total	Total
		Mild	moderate	sever		
Men	13(36.1)	6	9	8	23(63.9)	36
Women	23(36.5)	8	13	19	40(63.5)	63
Total	36(36.4)	14	22	27	63(63.6)	99

Chi-sq test= 0.0016, p-value = 0.968

Table 2 showed the degree of depression distributed

according to age groups. The rate of occurrence of

depression increased with increasing age. The highest prevalence of depression was found in the

age group 46-50 years (85.7%). p-value (0.101153) which was not significant.

Table 2: Distribution of the presence of depression according to the age group of infertile cases.

Age	Normal n(%)	Depression				Total n(%)	Total
		Mild	moderate	severe			
18-25	8(61.5)	2	1	2	5(38.5)	13	
26-35	12(41.4)	2	6	9	17(58.6)	29	
36-45	15(30)	7	14	14	35(70)	50	
46-50	1(14.3)	3	1	2	6(85.7)	7	
Total	36(36.7)	14	22	27	63(63.6)	99	

Chi-square 6.2252, p-value = 0.101153

Table 3 showed that the rate of depression increased with an increase in the duration of infertility. The

highest rate was 65.6% among those with infertility of 24 months and more. The relationship was not significant (p-value = 0.60015).

Table 3: Distribution of cases according to the duration of infertility

Duration of infertility (months)	Normal	Depression				Total
		mild	moderate	severe	total	
less than 12	6(33.3)	2	3	7	12(66.7)	18
12 -23	8(47.1)	1	5	3	9(52.9)	17
24 and more	22(34.4)	11	14	17	42(65.6)	64
Total	36(36.4)	14	22	27	63(63.6)	99

Chi-sq test = 1.0211, p-value = 0.60015

Table 4 revealed that cases who had an abortion had the highest rate of depression 61.5%, followed by

cases who have no pregnancy (56.6%). A Chi-square test revealed no significant relationship between depression and obstetric history (p-value = 0.58611).

Table 4: Distribution of study cases according to obstetric history

Obstetric history	Normal	Depression				Total
		mild	moderate	severe	total	
abortion	5(38.5)	1	6	4	11(61.5)	16
had healthy child	10(45.4)	4	5	3	12(54.6)	22
no pregnancy	21(34.4)	9	11	20	40(56.6)	61
Total	36(36.4)	14	22	27	63(63.6)	99

Chi-sq test = 1.0655, P = 0.58611

4. Discussion

Mental health care is frequently disregarded throughout infertility treatments because getting pregnant is their main objective. Not being able to have children is incredibly upsetting, especially after couples' treatment attempts have failed.

It is clear from our study that the majority of the population in our sample suffers from depression. In a sample of 99 infertile people chosen at random, those with depression were about 40(39,6%) while in women about 23(22,7%), and the total of infertile parsons with depressive symptoms was 63.6% made up practically double the rate of normal.

Comparing the prevalence of depression in this study to that in several studies in other nations with cultures and religions close to the city of AL Anbar Iraq, such as Saudi Arabia (53.8%), Turkey (65%), and Iran (46%)⁽¹⁶⁾. and its higher rate comparing the prevalence of depression in some developed countries like Sweden is about 10.9% of females and 5.1% of males⁽¹⁷⁾. in China, the prevalence of females is 17.9% and males (6.9%)⁽¹⁸⁾. And in Italy, the infertile females are about 17.9% and males are (7,1%) with depressive symptoms⁽¹⁹⁾.

Furthermore, infertile women in our culture are under greater pressure from society than infertile

men, and they are more afraid of the stigma.

However, we show that the percentage of infertile females is higher than that of males who are attending the clinic for treatment. Infertile couples become more depressed and frustrated with the lengthening of infertility time and the progression of the ages the infertile couples. It may be due to narrowing the opportunity of time for gaining a successful pregnancy.

These findings highlight the need of keeping an eye on the prevalence of infertility and how it affects the patient's attachment. It is important to treat infertile people seriously.

It was shown through our research that the majority of people who visited the Anbar infertility clinic were mothers with those who never got pregnant (primary infertility). There were 61 (61.6%), with roughly 40 (40.4%) cases of depression.

5. Conclusion

Depression is an important associated disease with infertility in both male and female, that need special care and follow-up.

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