Determine the Frequency of Depression in Females with Infertility

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ABSTRACT

Objective: To determine the frequency of depression in women with infertility attending gyne OPD in tertiary care hospital.

Study Design: Cross-sectional/observational study

Place and Duration of Study: Private Clinics of Gynecologists and Psychiatrists in Peshawar and Mardan during from 1st Nov 2019 to 30th April 2020.

Methodology: One hundred and sixty women with ages 18-45 years presented with infertility were enrolled. Detailed demographics including age, socioeconomic status, residence, education and gravidity were recorded after written consent. Hospital Anxiety and Depression scale was used to examine the frequency of depression and anxiety.

Results: Mean age of patients was 28.46±7.68 years. Depression was found in 120 (75%) patients among those 25 (15.63%) patients had mild depression, 50 (31.25%) patients had moderate depression and 45 (28.13%) patients had severe depression.

Conclusion: Frequency of depression was very high in women with infertility attending gyne OPD.

Key words: Infertile women, Depression, Frequency

INTRODUCTION

Infertility is a world-wide issue that has been growing and affects approximately 9-15 percent of childbearing couples.1 Seventy million pairs are commonly considered infertile worldwide.^{2,3} A health survey carried out in 190 countries and territories has shown that the infertility prevalence is higher in South Asia, sub-Saharan Africa, North Africa / Middle East and Central / Eastern Paul who has not been able to conceive of being deficient or feel fit in the community. 4,5 It may contribute to various psychosocial effects such as depression, anxiety, covetousness and social isolation. The new programme on reproductive health involves infertility, instead of too many severe effects, in the previous programme on reproductive health it has not been focused enough in protection motherhood. 6-8 Secondary infertility worldwide is more common than primary infertility. In addition to simple infertility and secondary infertility, serious medical problems that cannot conceive or have abortions or stillbirths are often involved.9

The present study was conducted aimed to examine the frequency of depression in women with infertility attending Gyne OPD in our institution.

MATERIALS AND METHODS

This cross-sectional/observational study was conducted at Private Clinics of Gynecologists and Psychiatrists in Peshawar and Mardan during from 1st Nov 2019 to 30th April 2020. Total 160 women with ages 18-45 years presented with infertility were enrolled. Detailed demographics including age, socioeconomic status, residence, education and gravidity were recorded. Patients with severe maternal complications, patients with cardiovascular diseases, less than 18 years of age were

excluded. Hospital Anxiety and Depression scale HADS was used to examine the frequency of depression. Severity of depression and anxiety were recorded. Data was analyzed by SPSS 24.0. Chi-square test was done to examine the association between socio-economic status and depression and anxiety, P-value <0.05 was taken as significant.

RESULTS

Out of all the 160 patients 17 (10.63%) patients were ages ≤20 years, 57 (35.63%) were ages 20 to 25 years, 67 (41.88%) were ages 26 to 30 years and 19(11.88%) were ages above 30 years.

Table 1: Baseline characteristics of all the patients

Variable	No.	%
Age (years)		,,,
<20	17	10.63
21 – 25	57	35.63
26 – 30	67	41.88
> 30	19	11.88
Mean BMI (kg/m)	23.48±4.74	
Gravidity		
Primigravida	103	64.38
Multigravida	57	35.63
Education		
Literate	75	46.88
Illiterate	85	53.13
Residence		
Urban	78	48.75
Rural	82	51.25
Socioeconomic status		
Low	69	43.13
Middle	71	44.38
High	20	12.5

Mean BMI was 23.48±4.74 kg/m². 103 (64.38%) patients were primigravida while 57 (35.63%) were multigravida. 75 (46.88%) were literate while 85 (53.13%) were illiterate. 78 (48.75%) patients had urban residence and 82 (51.25%) had rural residence. 69 (43.13%) patients had low socioeconomic status, 71 (44.38%) had middle and 20 (12.5%) patients had high socio-economic status (Table 1). According to the HADS scale, depression was found in 120 (75%) patients among those 25 (15.63%) patients had mild depression, 50 (31.25%) patients had moderate depression and 45 (28.13%) patients had severe depression (Table 2).

Table 2: Frequency of Depression among patients with infertility

Depression	No.	%
Severe	45	28.13
Moderate	50	31.25
Mild	25	15.63

DISCUSSION

The study presented strong proof of the infertile women's prevalence of depression. Our research found that infertile women had a more prevalent depression than the average population.14 Our research shows that depression has a 75 percent prevalence. A research carried out by Madhavanprabhakaran et al¹⁰ stated that the infertile female rate of depression was 33 percent.

Another research by Park et al¹¹ has shown that the infertility rate in women was 40.8%. 53.8% of the patients reported having depression in Ali et al.¹².

In our study, we found that the majority of patients received infertility care and this may be the risk factor for high depression. Other research found less depression prevalence because the included patients had not yet undergone a therapy failure, had hope and confidence, and thus had improved psychological conditions. In the meantime, the remaining studies have recruited people who have already failed infertility therapy, and may feel nervous, exhausted, depressed and confused as a result of many therapies and expenditures, and may be more vulnerable to depression. Second, studies in other countries have used many methods for assessing signs of depression, including the Beck Depression Inventory (BDI) and the Center of Epidemiological Research Depression Scale (CES-D). 13-15

The study also found that primary infertile women displayed more depression than those who had secondary infertility. It may be because of the previous definitions of secondary infectious women, like husband and attorneys, more hopelessly than primary infertile females, and because they also face lower social pressures. Primary infertile women feel inferior and are unfit for the group. Marital stability, social security, property rights and personal satisfaction among primary infertile women are less common. In the United States, research has been performed and it has shown, compared to the secondary infertile women, that women with primary infertility have a higher fertilizer specific distress. ¹⁶ In Nigeria, the findings were unbeatable as there were no major variations in depression for both classes. ¹⁷

We had found 45 (28.13%) patients had severe depression in infertile women. Out of all the 160 patients 17 (10.63%) patients were ages <20 years, 57 (35.63%) were

ages 20 to 25 years, 67 (41.88%) were ages 26 to 30 years and 19 (11.88%) were ages above 30 years. Mean BMI was 23.48±4.74 kg/m². 103 (64.38%) patients were primigravida while 57 (35.63%) were multigravida. 75 (46.88%) were literate while 85 (53.13%) were illiterate. 78 (48.75%) patients had urban residence and 82 (51.25%) had rural residence. 69 (43.13%) patients had low socioeconomic status, 71 (44.38%) had middle and 20 (12.5%) patients had high socio-economic status. These results showed similarity to many of previous studies. 18,19

CONCLUSION

Depression one of the most common disorders found in women with infertility and is highly associated with morbidity. We concluded from this study, that the frequency of the depression is very high among women with infertility. Early management can reduced the complication associated with depression.

REFERENCES

- Faisal-Cury A, Rossi Menezes P. Prevalence of anxiety and depression during pregnancy in a private setting sample. Arch Women's Mental Health 2007; 10(1): 25–32.
- WHO. Mental Health Aspects of Women's Reproductive Health: A Global Review of the Literature, World Health Organization, Geneva, Switzerland, 2009.
- Nonacs R, Cohen LS. Depression during pregnancy: diagnosis and treatment options. J Clin Psychiatr 2002; 63(7): 24–30.
- Roomruangwong C, Epperson CN. Perinatal depression in Asian women: Prevalence, associated factors, and cultural aspects. Asian Biomed 2011;5:179–93.
- Bhat NA, Hassan R, Shafiq M, Sheikh S. Sociodemographic factors: a major predictor of anxiety and depression among pregnant women. Delhi Psychiatry J 2015;18(1):86–94.
- Chandran M, Tharyan P, Muliyil J, Abraham S. Post-partum depression in a cohort of women from a rural area of Tamil Nadu, India. Incidence and risk factors. Br J Psychiatr 2002; 181: 499–504.
- Fernandes MC, Srinivasan K, Stein AL, Menezes G, Sumithra R, Ramchandani PG. Assessing prenatal depression in the rural developing world: a comparison of two screening measures. Arch Womens Ment Health 2011;14:209–16.
- 8. Nasreen HE, Kabir ZN, Forsell Y, Edhborg M. Prevalence and associated factors of depressive and anxiety symptoms during pregnancy. BMC Womens Health 2011;11:22.
- Witt WP, Street NW, Hagen EW, Wichmann MA. The prevalence and determinants of antepartum mental health problems among women in the USA: a nationally representative population-based study. Arch Womens Ment Health 2011;13(5):425–37.
- Madhavanprabhakaran GK, D'Souza MS, Nairy KS. Prevalence of pregnancy anxiety and associated factors. Int J Africa Nurs Sci 2015;3:1-7.
- Park JH, Karmaus W, Zhang H. Prevalence of and risk factors for depressive symptoms in Korean women throughout pregnancy and in postpartum period. Asian Nurs Res (Korean Soc Nurs Sci).2015;9(3):219-25.
- Ali NS, Azam IS, Ali BS, Tabbusum G, Moin SS. Frequency and associated factors for anxiety and depression in pregnant women: a hospital-based cross-sectional study. Sci World J 2012; 2012: 653098.
- Ghaffar, R., Iqbal, Q., Khalid, A. et al. Frequency and predictors of anxiety and depression among pregnant

- women attending tertiary healthcare institutes of Quetta City, Pakistan. *BMC Women's Health 2017;* **17:** 51.
- Bavle AD, Chandahalli AS, Phatak AS, Rangaiah N, Kuthandahalli SM, Nagendra PN. Antenatal Depression in a Tertiary Care Hospital. *Indian J Psychol Med* 2016;38(1):31-35.
- Sabita P, Prakash M, Sharmila E. A cross sectional study of depression during pregnancy and its risk factors among pregnant women attending a tertiary care hospital in Pondicherry, India. Int J Reprod Contracept Obstet Gynecol 2019;8:1363-8.
- Gul E, Muneeb MP, Azeemi MUH, Khan MA, Shah S. Antenatal anxiety and depression among pregnant women attending tertiary care hospital, Mardan, Pakistan. Khyber Med Univ J 2019;11(3):160-4.
- Bajwa AA, Farjam A, Khan SA. Frequency of psychiatric disorders among pregnant women attending antenatal clinic and to compare these disorders with those of non-pregnant females attending general female OPD: Pak Armed Forces Med J 2009; 59(4):445-9.
- Al-Hejji Z, Al-Khudhair M, Al-Musaileem M, Al-Eithan M. Prevalence and associated risk factors of antenatal depression among women attending antenatal clinics in primary health care centers in the Ministry of Health in Al-Ahsa City, Saudi Arabia. J Family Med Prim Care 2019;8:3900-7.
- Ali F, Butt A, Hameed A, Furqan A, Ali F. Antenatal depression; frequency and factors associated in patients presenting in tertiary care hospital. Professional Med J 2017;24(3):458-461