



INFERTILITY AND PSYCHOLOGICAL MORBIDITY AMONG FEMALES-A HOSPITAL BASED STUDY*

Community Medicine

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ABSTRACT

Background: Depression is a common psychological disorder and it may affect the life of infertile couples mainly females.

Objectives: To measure the magnitude of the depression, anxiety and stress and explore the association of these with demographic characteristics.

Methods: A descriptive cross-sectional study of 80 female subjects attending infertility clinic of GTB Hospital Delhi. DAS scale, a 42 item, self-reported questionnaire used to measure the negative emotional states of depression, anxiety and stress.

Results: 68.8%, 42.5%, and 61.3% of female subjects had experienced depression, anxiety and stress respectively. There is weak positive correlation between duration of infertility and depression among females but statistically significant ($p=0.015$).

Conclusion: As a high magnitude of psychological disorder came out among females of infertile couples. So there is need to identify and address this menace effectively. Routine screening and counselling should be associated with treatment of infertility.

KEYWORDS

Infertility, Depression, anxiety, stress.

Introduction

Fertility is one of the most important events of human life for any married couples. Opposite to that, Infertility defined as "a disease of the reproductive tract system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse"¹. Infertility affects 72.4 million of people worldwide and has been named a major medical and social problem by World Health Organization². There were no conclusive studies for prevalence of infertility are available in India as it differs from state to state. But according to WHO reports, estimates that the prevalence of infertility varies from 3.9 and 16.8 percent³. Infertility is a highly stressful situation for a couples, but female are the more vulnerable group, effected more than that of their partner. According to various studies like in Mozambique, social activities and traditional ceremonies are forbidden for infertile women⁴, while in Brazil, the quality of the marital relationship would be considered irregular if there is no child⁵. In India it is reported that 70 percent of females experiencing infertility are punished with physical violence for their failure⁶. In china, female who are unable to give birth tend to involved in marital conflict, and a part of them face the threat of divorce⁷. Even though men are also accountable for infertility, the negative social and economic consequences due to infertility mainly effects the females and they feel so sad and depressed and also the pressure from the society and family, adds up to her psychological torture. In some societies, infertility can especially be very distressing for females because their religion and culture allow men to have more than one wives at same time and female's inability to conceive gives them excuse to marry again⁸. It will lead to psychological disorder like depression, anxiety and stress. Depression is a one of the most common psychological problem among infertile couples and also a common consequence of infertility⁹. According to various literature these psychological problems profound in females than their control group¹⁰ (normal population) and also more than that their males partners¹¹. Infertile females report equivalent levels of depression and anxiety as women with cancer, HIV status or heart disease¹². Depression, anxiety and stress may be arises during diagnosis, treatment procedure and also in follow-up and outcome of infertility treatment among females. Some studies reported that the relationship between infertility and depression, according to that severity of depression in females may result in lower percentages of pregnancy because of elevated level of prolactin and thyroid

dysfunction¹³. Stress also have negative effect on child birth, as it is supposed to be its effects on cortisol level production, by increasing the release hormones from pituitary also increase level of cortisol interfere with successful treatment of IVF¹⁴. Whereas some of the studies reported that anxiety also most common problem associated with infertile couples, possibly because of anticipated stressful nature of the treatment and treatment failure^{15,16}. Various studies has been done internationally among female partner of infertile couples associated with psychological morbidity, but very few studies has been done nationally. The females who is infertile is considered as a curse to the society as well as to the family. As the psychological problems like depression, anxiety and stress have great impact on females, and it is more commonly involves females than their male partner. Therefore purpose of present study was to analysis the magnitude of depression, anxiety and stress and also the association with any of these, with socio-demographic factors among female partner of infertile couples attending infertility clinic.

Material and methods

This study was cross sectional and descriptive enquiry conducted between Dec 2013 and Apr 2015 at Obstetrics and Gynecology outpatient department of GTB Hospital Delhi. All the participants meeting inclusion criterion were enrolled during the study period. The exclusion criteria were the subject needing immediate medical attention and/or, suffering from chronic mental illness and/or subject unable/unfit to comprehend- making administration of instrument difficult. Published data reported that prevalence of Depression among female were 23.9 percent¹⁷ so the minimal sample size for random sample at 95% confidence level, 5% type 1 error and 10% absolute precision is computed to be 68. Thus for the present study 80 females were interviewed in infertility clinic. A pre tested, semi-opened ended, self-prepared questionnaire included socio-demographic characteristics and the depression, anxiety and stress scale is a 42 item, self-reported questionnaire designed to measure the negative emotional states of depression, anxiety and stress. The study was approved by Ethics committee and all the subjects gave informed consent before interview. The Chi-square test and Pearson correlation were used for statistical analysis. The p value less than 0.05 was accepted as statistically significant. The data was compiled using SPSS software version 20.0.

Results

Majority (72.6%) of females were between the age group of 20-29 years with mean age of females were 26.88± 3.7 years. The percentage of females belonged to joined families and nuclear families were equal (45%). Majority (81%) of females belonged to Hindu religion followed by Muslims (16%) and rest Sikh. Mostly females were literate but none of the females had any Professional degree. Most of the females (91%) were housewives.

Fig 1 depicted that duration of infertility were maximum (53.7%) for a period of less than or equal to 3 years followed by 30% having more than 6 years. The primary infertility was more than the secondary infertility and it was commonly attributable to female factors (36.3%) followed by male factors (13.6%). Fig 2 depicted that the magnitude of depression, anxiety and stress among female were 68.8%, 42.5% and 61.3% respectively. There were no statistically significant association found between age, education, employment, religion, type of families, type of infertility among female subjects and depression, anxiety and stress respectively. Fig 3 depicts correlation between duration of infertility and depression among females. There is weak positive correlation between duration of infertility and depression among females and these correlation was statistically significant (p=0.015).

Fig: 1 Duration of Infertility (n=80)

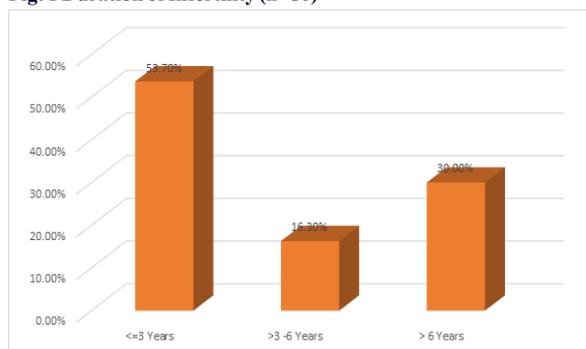


Fig 2: Magnitude of Depression, Anxiety, and Stress among females (n=80)

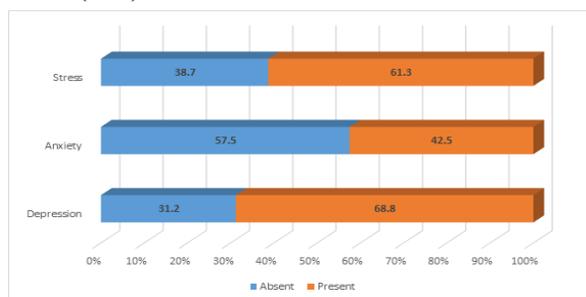
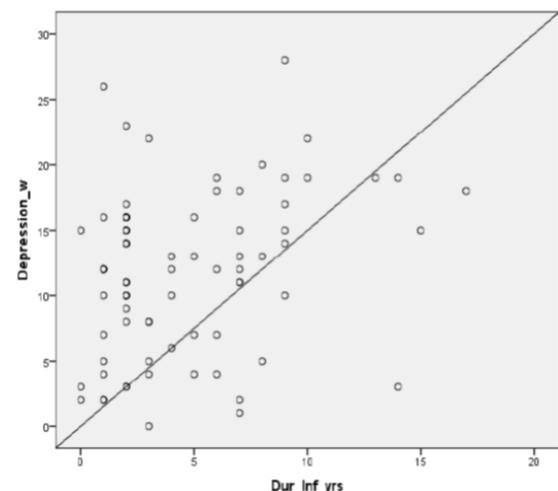


Fig 3: Shows correlation between duration of infertility and depression among females.



Discussion

A study was undertaken to assess the frequency of depression, anxiety and stress among females of infertile couples and the various socio-demographic attributes related to the condition of females. Majority of females were in the third decade of their life (20 to 29 years). Majority of females were belonged to Hindu religion (81%) followed by Muslim (16%). 45% of females were living in joined families and 45% were nuclear families. Study conducted by Zobia M¹⁸ in Punjab showed that majority of women were of the Opinion that joint family residence added to the burden and creating hurdle in the development of a relationship between the couples and lack of privacy and ability to make decisions regarding treatment options or adoption. The primary infertility was more than secondary infertility. This is differ to finding reported by Alhassan¹⁹ according to which secondary infertility more common than primary infertility. The women presenting with primary infertility having more depression than the women with secondary infertility but the result was not statistically significant. In primary infertility the woman has not been able to have a live birth putting into question her womanhood and lost the identity as a woman is enough for divorce in our society and thus woman present with psychological problems. This is similar to the finding reported by Alhassan A in Ghana¹⁹. The mean duration of infertility was 4.5 year. In this study there was weak but significant positive correlation found between duration of infertility and depression among females (p=0.015 for female). The similar result has been reported in studies done by Ashkani H²⁰ in Southern Iran, Domer et al²¹, Khademi A et al¹⁰. Cultural expectation that a women should conceive within the first year of marriage as quick conception is proof of womanhood and the pressure from the families also increase the depression among females. The percentage of females having depression (69%) in our study is similar to findings reported by Guerra et al in China (68%)²² and Alhassan A et al in Ghana (62%)¹⁹. Whereas 79% of depression found by Yusuf L²³ in Pakistan, which was little bit higher. The high prevalence of depression in present study could be attributable to societal and family demand from females to have their own children. Similarly, stress score among females has been found high by Dooley M et al²⁴ and Yusuf L²², which is with consistent with our studies (61.3%).

Anxiety was found to be 42.5 % among females. Magnitude of anxiety is much higher in our study than reported in a study conducted by Volgsten H et al²⁵ wherein they reported anxiety in 14.8% of females. Yassini et al¹⁷ found to be moderate (76%) to severe anxiety (12%) in patients who underwent in-vitro fertilization. The difference among the studies may be due to the specific sub-groups (in-vitro fertilization and intra cytoplasmic sperm injection) taken in their study while no such measures have been taken in the present study. The shortcoming of our study was, it was a single hospital based cross-sectional study with relatively small sample size, so findings of current study cannot be generalized to the population. In addition, there was no control group. The strength of the present study was to assess the psychological situation among female subjects attending infertility clinic as the data among Indian population was limited. The instruments used to screen the females of infertile couples in the study was DASS, which is validated, reliable scales and have been used in Indian settings.

Conclusion

The finding from current study suggest that very high magnitude of psychological disorder like depression, anxiety and stress among females. So there is need to identify and address this menace effectively. Routine screening and counselling are necessary steps given to females attending infertility clinic.

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Conflict of interest

None

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NoneC

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