

Psychological Aspect of Infertility among Male Partner of Infertile Couples Attending Infertility Clinic of Tertiary Care Hospital, Delhi.

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Abstract

Background: Infertility is a major health problem among young couples in India and it is associated with psychological morbidity like depression, anxiety and stress etc. Among psychological problems, Depression is a one of the major consequences of infertility.

Objectives: To determine the magnitude of the depression, anxiety and stress among males attending infertility clinic of tertiary care hospital.

Methods: This is a descriptive cross-sectional study of 80 male subjects attending infertility clinic of GTB Hospital Delhi. DASS, a 42 item, self-reported questionnaire used to measure the three related negative emotional states of depression, anxiety and stress.

Results: 20%, 10%, and 17.5% of male subjects had experienced depression, anxiety and stress respectively.

Conclusion: Infertility is not only familiar as a female problem, it can effects male as well and put them at increased risk for psychological morbidity.

Keyword: Anxiety, depression, infertility, stress

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I. Introduction

Infertility may considered as a very difficult situation for millions of couples around the world. The WHO estimates that prevalence of infertility 8-12 percent worldwide [1]. In India 30 million of couples were suffer from infertility with incident of 10 percent [2]. Most of the couples express a strong desire for a child, but because of infertility they are hopeless. Infertility now no more familiar as a female problem, it can effect either of subject of infertile couples. It was reported that 40 percent of infertility related to female factors, 40 percent to male factors and rest 20 percent to both the spouse [3]. A study reported that male infertility has increased as a result of environmental pollution, stress and lifestyle [4]. Infertility, long term management of infertility, their expensive cost of treatment and with unknown result of treatment may be related to depression, anxiety, stress, guilt and social isolation among infertile couples. Male and female subjects of infertile couples are affected by infertility but somewhat not in similar ways. Men are usually seen as an earners in the houses and they are responsible for protecting the family from any kind of risk. Men generally feel more threatened to commute themselves since they have been conditioned to suppress their emotions [5]. Burden of psychological problems were higher in female partner of infertile couples than male partner according to various studies [6, 7, 8]. But Male's responses to infertility closely approximate the intensity of female's responses when infertility is attributed to male factor [9]. Depression could be one of the major psychological problem associated with infertility, their treatment procedure and their unpredictable results [10]. Studies also show that sperm quality diminishes when men are faced with emotional distress and after a year or two of infertility, men are eight times more likely to have a low sperm count [11]. Many times men worry about their inability to contribute to their genetic line and by not producing they are letting down the family. These concern can lead to erectile dysfunction causing further complication related to infertility [12]. Various studies has been done nationally and internationally among female partner of infertile couples associated with psychological morbidity, but very few studies has been done among male partner associated with depression, anxiety and stress. As the psychological problems among males have great impact of their family, mainly with their female partner. Therefore purpose of present study was to analysis the magnitude of depression, anxiety and stress among male partner of infertile couples attending infertility clinic.

II. 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 the inclusion criterion were enrolled during the study period. Published data reported that prevalence of depression among male was 22.8 percent [13], 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 purpose of present study 80 males were interviewed in infertility clinic. A pre tested, semi-opened ended, self-prepared questionnaire included socio-demographic characteristics of couples and the depression, anxiety and stress scale (DASS) [14] is a 42 item, self-reported questionnaire designed to measure the three related 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 data was compiled using SPSS software version 20.0.

III. Results

In our study, majority of the males belonged to age group of 25-34 years and magnitude of depression, anxiety and stress was maximum in less than 34 years of age group of males. Majority of males were literate (96%). Table 1 depicted that the majority of males were employed (99 %) with 46 % involved in the unskilled labor sector and only 3.8 % were professional workers. Table 2 showed that majority of males (43.6%) did not indulge in any kind of substance abuse, 16.5% were using non-smoked tobacco followed by 15% who were using smoked tobacco. Only 13% of males were using alcohol. Table 3 depicted that majority (75%) of male found treatment outside GTB Hospital to be expensive as compared to GTB Hospital, where 97.5% of the male found the treatment to be affordable in GTB hospital. Fig.1 shows that 40% of the males belonged to families with monthly family income of less than Rs.9137 whereas only 13% of families had monthly income greater than Rs.36552. Infertility was mostly attributable to female factors (36.3%) followed by male factors (13.6%). Majority (78.8%) of the males had intercourse less than three times a week. Erectile dysfunction was absent in most of the husbands, being present in only 6.2% of them. Interestingly, pre-marital or extra-marital relationships were entirely absent. Fig.2 depicted that the magnitude of depression, anxiety and stress among males of infertile couples were 20%, 10% and 17.5% respectively.

Table 1: Occupation of males (n=80)

| Occupation | Males | |
|----------------------------|--------|----------------|
| | Number | Percentage (%) |
| Professional | 3 | 3.8 |
| Semi prof | 4 | 5 |
| Clerical/shop owner/farmer | 9 | 11.3 |
| Skilled | 13 | 16.3 |
| Semi- skilled | 13 | 16.3 |
| Unskilled | 37 | 46 |
| House wife | 0 | 0 |
| Unemployed/ Student | 1 | 1.3 |
| Total | 80 | 100 |

Table 2: Substance abuse by males (n=80)

| Substance abuse | Numbers | Percentage (%) |
|------------------------------|---------|----------------|
| Non-smoked tobacco | 13 | 16.5 |
| Smoked tobacco | 12 | 15 |
| Alcohol | 9 | 11.2 |
| Non-smoked + Smoked tobacco | 4 | 5 |
| Non smoked tobacco + Alcohol | 2 | 2.5 |
| Smoking + Alcohol | 5 | 6.2 |
| None | 35 | 43.6 |
| Total | 80 | 100 |

Table 3: Perceived Cost of treatment (n=80)

| Perceived cost of treatment | Outside GTBH | | In GTBH | |
|-----------------------------|--------------|------------|---------|------------|
| | Numbers | Percentage | numbers | Percentage |
| Expensive | 60 | 75% | 2 | 2.5% |
| Affordable | 7 | 8.8% | 78 | 97.5% |
| Not applicable | 13 | 16.2% | 0 | 0% |
| Total | 80 | 100 | 80 | 100 |

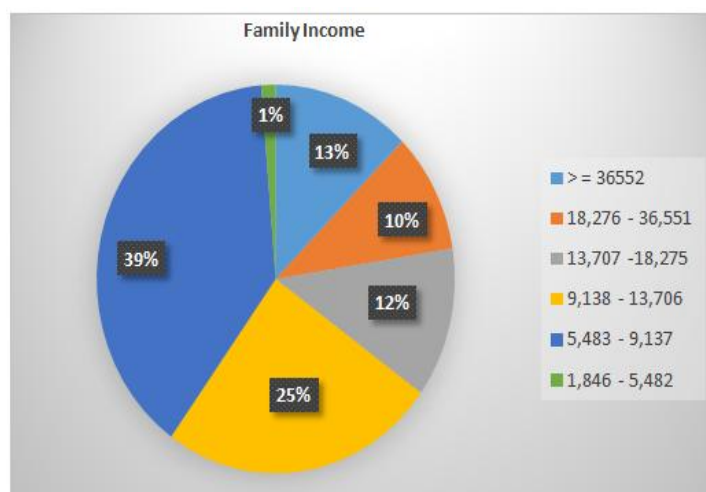


Fig: 1 total monthly family income (n=80)

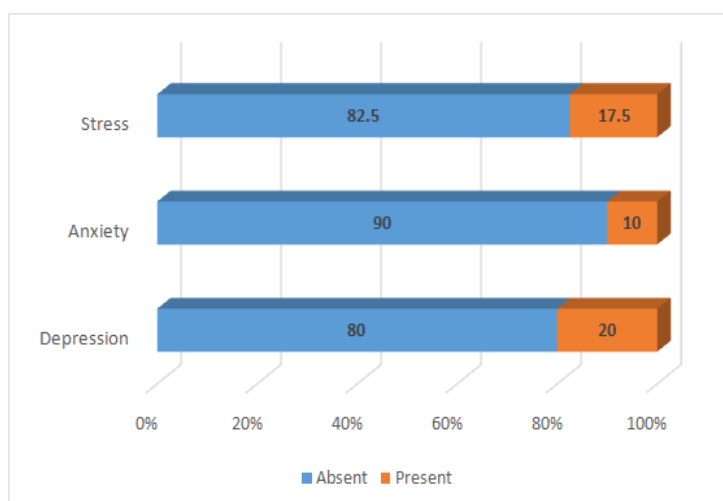


Fig 2: magnitude of depression, anxiety, stress among males (n=80)

IV. Discussion

A number of studies have been found that the infertility associated with psychological morbidity like depression, anxiety and stress but the literature were limited among male partner of infertile couples; as these were neglected area as compared to their female partner. Depression was the major psychological morbidity in our study which is also found the study done by Sudha et al [13]. The magnitude of depression, anxiety and stress among male partner of infertile couples in our study are 21.3%, 10% and 17.5% respectively. The magnitude of depression in our study was higher than that was found in America (3.8%)[15], Sweden (5.1%)[16], Italy (6.9%)[17], and China (13.3%)[18]. A study has been done in Taiwan [19] which was reported that the prevalence of depression is 17%, which is nearly similar finding with our study. The magnitude of stress in our study is 17.5% which is lesser than that of study done by Yusuf AJ et al (28.4%)[20], whereas magnitude of anxiety is 10% which is nearly same as depicted by Yusuf AJ et al (11.1%)[20], but it was less in study has been done by Volgsten H et al (4.9%)[16]. This may be due to the different culture background and methodologies used for studies. Higher education, well paid and stable job provides psychological relief. In our study majority of males had attended formal education (96%) and engaged in unskilled works (46%) and hence may not well paid or temporary job which lead more psychological problem. Almost 97.5% of participants

perceived the treatment to be affordable in GTB Hospital as compared to the treatment received outside, which were reported by them to be too expensive. Also in our study reported that the 45% of the males were using tobacco followed by 20% who were using alcohol. Smoking and alcohol may consider as a one of the cause of reproductive health disorder (erectile dysfunction, impotence and testicular atrophy). Available literatures suggests that an association between smoking and erectile dysfunction [21] and alcohol are directly toxic to testes [22]. The shortcoming of this study was, it was a single hospital based study with small sample size. The strength of the present study was to assess the psychological situation among male subjects attending infertility clinic.

V. Conclusion

Infertility is a one of the major health problems among young couples in India, and is coexists with psychological and social problems etc. It is important to carry out this type of epidemiological survey more in number among male subjects and to follow them longitudinally to understand the natural history of psychological disorder related to male subjects.

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