

Stress among Couples Having Infertility Undergoing Assisted Reproductive Technique (ART) Treatment

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Abstract

Background: The importance of infertility treatment in the larger field of Obstetrics and Gynecology is related to the almost universal desire for a child among women. The desire for a child has had different meanings throughout the history of humankind. Women seeking treatment for lifetime primary and current primary infertility are found to be around 83%. *Objectives:* To assess the level of stress related to infertility among female and male spouse, to compare the stress related to infertility between female and male spouse, to find the relationship between stresses related to infertility among female and male spouse and selected demographic variables and to formulate, validate and disseminate an informational booklet on management of stress related to infertility. *Methods:* A quantitative approach with a comparative descriptive research design was adopted for the study. The study was conducted in a selected government hospital of New Delhi. Convenient sampling technique was used to draw a sample of 30 female and 30 males. A structured questionnaire was used to assess the level of stress among couples having infertility undergoing Assisted Reproductive Technique (ART) treatment. *Result:* The findings revealed that 70% female and 60% of male couples having infertility and undergoing Assisted Reproductive Technique (ART) treatment were found to have moderate level of stress. There was no significant difference in the mean stress scores among female and male spouses having stress related to infertility.

Keywords: Couples; Stress; Infertility; Assisted Reproductive Technique (ART) Treatment; Informational Booklet.

Introduction

Infertility is generally defined as the inability to conceive after 12 months of regular unprotected sexual intercourse. It is a life crisis because of its uncertain and individual outcomes [1]. Infertility is not only a gynecological illness but also a bio-psycho-social health problem including a lower Quality of Life (QOL), psychiatric problems, marital conflicts and sexual dissatisfaction [2]. For women pregnancy and motherhood are developmental milestones that are highly emphasized by our culture. When attempts to have a child fail, it can be an emotionally devastating experience [3]. The importance of infertility treatment in the larger field of Obstetrics and Gynecology is related to the almost universal desire for a child among women. As Griel [4] suggested, "Children became economically worthless but emotionally priceless." According to Daniluk [5] "There is a smaller body of literature on the male experiencing of infertility, both as a partner and as the partner with the primary diagnosis." Men experienced infertility as a stressful event (Band, Edelmann, Avery & Brinsden). Glover and Gannon [5] found that in study of men attending a specialist male infertility clinic, the men reported experiencing high levels of anxiety, feeling "less of a man" and blaming themselves for the infertility. However, they were not depressed. Infertile males often report having sexual problems, such as erectile dysfunction while the male partners of infertile females report decreased sexual satisfaction (Leiblum, 1993) [5]. In Nelson et al.'s study, women suffered greater depression and sexual dysfunction and sexual dysfunction was believed to occur simultaneously in

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both men and women [6]. Oskay also reported higher overall prevalence of sexual dysfunction in infertile women in comparison to men and this abnormality was associated with advanced age, duration of infertility, and sex frequency [7]. The prevalence of ejaculatory dysfunction in the study by Shindel was higher in infertile men than their fertile counterparts and, therefore, it could negatively affect sexual functions between the genders [8]. Infertile women experience stigma and isolation in our traditional society. Infertility can threaten a woman's identity, status, economic security and consequently be a major source of anxiety. Men tend to hold their wives responsible for infertility. Many wives blame themselves for childlessness, irrespective of who may be responsible. They would also be victims of violence, abuse and social exclusion. Some couples experience altered sexual responses after this diagnosis [9]. When the fertile couple experiences anxiety they adopt some coping methods to overcome this condition like seeking medical advice, engaging in wishful thinking and sharing burden with others. During the clinical exposure, the investigator came across many couples having infertility and who were facing one or more psychological problems. Thus, the investigator felt a need to probe in to the problem. As infertility is the rising problem in our modern society which affects couples' marital lives, the investigator decided to assess the level of stress among couples undergoing infertility treatment and to develop an informational booklet on management of stress related to infertility.

Methods

For the present study, quantitative approach and comparative descriptive design was used. The study was conducted at a selected government hospital in New Delhi. Convenient sampling technique was used to select 30 couples that is 30 female and 30 male. The data were collected using structured questionnaire developed by this researcher which was divided into three sections, section I, section II and section III. Section I consisted of related to demographic data such as age, educational status and type of family, religion, occupation and locality. Section II consisted of structured questionnaire to assess the level of stress among female spouse having infertility and section III consisted of structured questionnaire to assess the level of stress among male spouse having infertility. Both the section II and III were 3-point Likert scale: 'not at all stress', 'to some extent stress' and 'to a great extent stress'. The content validity of the structured questionnaire was

established by seven experts from Nursing, Gynaecology & Obstetrics, Psychology and Psychiatry. The reliability of the questionnaire was established by using Cronbach's Alpha internal consistency test. The reliability coefficient obtained for stress among female spouse was found to be 0.71 and for tool to assess stress among male spouse 0.93 and hence the tool was found to be reliable. Ethical permission to conduct the study was sought from the Institutional Ethical Committee (IEC). Informed Consent was taken from participants of the study before data collection. The data were analyzed using both descriptive and inferential statistics.

Results

The data presented in the Table 1 indicates that among female spouses, 21(70%) belonged to 26-30 years of age group, followed by 7 (23.33%) who belonged to 31-35 years of age, 1(23.33%) belonged to 20-25 years of age and 36-40 years and none was found to be above 40 years. Among male spouse, 15(50%) belonged to age group of 31-35 years, 6(20%) belonged to 36-40 years of age and 26-30 years of age, 2(6.66%) belonged to above 40 years of age and 1(3.33%) belonged to 20-25 years of age group.

Regarding educational status, among female spouses 9(30%) were graduates and 10th passed, 8(26.66%) was 12th passed, 2(6.66%) were post graduates and studied till primary school. Among male, 10(33.333%) were 10th passed, 8(26.66%) were 12th passed, 7(23.33%) were graduates, 4(13.33%) were post graduates and 1(3.33%) had studied till primary school.

Regarding type of family, among couples 20 (66.66%) each belonged to nuclear family and 10 (33.33%) belonged to joint family .

Regarding religion 25(83.33%) couples were found to be Hindu, 4(13.333%) were found to be Muslims, and 1(3.33%) was found to be Sikh.

With regard to occupation, among female spouses majority, 18(60%) were found to be unemployed, 6(20%) were professionals, 4(13.33) were semiskilled workers and at the least 2 (6.66%) were domestic workers. Whereas among male spouse, 11(36.66%) were professionals, 7(23.33%) were semiskilled workers, 6(20%) were unskilled workers, 4(13.33%) were running their own business, 2(6.66%) were domestic workers, while none was found to be unemployed.

Regarding locality among couples, 29(26.66%) belonged to urban area, 1(3.33%) belonged to rural area.

Table 1: Frequency and percentage distribution of couples having infertility undergoing, Assisted Reproductive Technique (ART) treatment by demographic characteristics **n1+n2=60**

S. No.	Characteristics	Female spouse having infertility		Male spouse having infertility	
		Frequency	Percentage	Frequency	Percentage
1.	Age in yrs				
	20-25	1	3.33	1	3.33
	26-30	21	70	6	20
	31-35	7	23.33	15	50
	36-40	1	3.33	6	20
	Above 40	0	0	2	6.66
2.	Educational status				
	Post graduate	2	6.66	4	13.33
	Graduate	9	30	7	23.33
	12 th passed	8	26.66	8	26.66
	10 th passed	9	30	10	33.33
	Primary	2	6.66	1	3.33
3.	Type of family				
	Nuclear family	20	66.66	20	66.66
	Joint family	10	33.33	10	33.33
4.	Religion				
	Hindu	25	83.33	25	83.33
	Muslim	4	13.33	4	13.33
	Sikh	1	3.333	1	3.333
5.	Occupation				
	Domestic work	2	6.66	2	6.66
	Semiskilled worker	4	13.33	7	23.33
	Unskilled worker	0	0	6	20
	Professionals	6	20	11	36.66
	Own business	0	0	4	13.33
	Unemployed	18	60	0	0
6.	Locality				
	Rural	1	3.33	1	3.33
	Urban	29	96.66	29	96.66

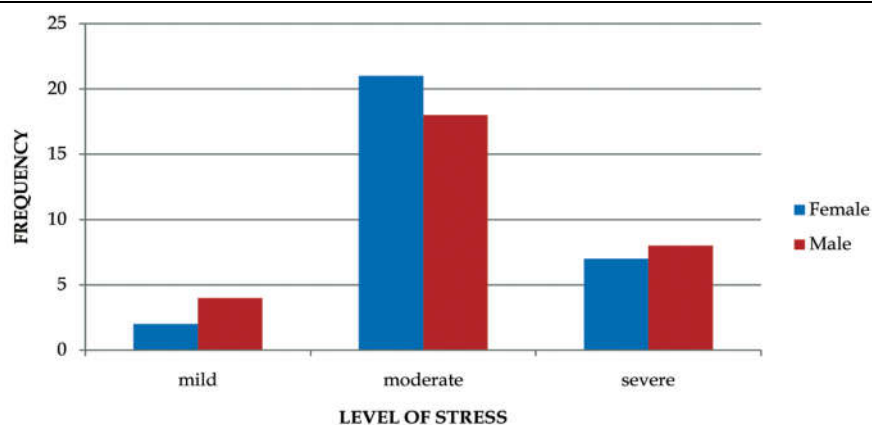


Fig. 1: Bar diagram showing frequency distribution of female and male spouses having infertility by their level of stress

The Figure 1 depicts that, 2 (6.66%) female spouses had mild level of stress, 21 (70%) had moderate level of stress and 7 (23.33%) had severe level of stress related to infertility, whereas in case of male spouse it showed that 4 (13.33%) had mild level of stress, 18 (60%) had moderate level of stress and 8 (26.66%) had severe level of stress related to infertility.

Table 2: Mean, Mean Difference, Standard Error and 't' Value Showing the Significance of Difference of Level of Stress Related to Infertility **n1+n2=60**

Group	Range of obtained score	Mean	Mean D	SE	't' Value
Female spouse	32-96	60.90	5.04	3.57	2.52
Male spouse	30-90	55.86			

$t_{(58)}=4.98$, Not significant at 0.05 level of significance

Data tabulated in Table 2 shows that the mean stress score of female spouse having infertility was 60.90 and the mean stress score of male spouse was 55.86. The mean difference was found to be statistically

not significant as evident from 't' value of 2.52, which is lower than the table value of 4.98 for degree of freedom 58 at 0.05 level of significance.

Table 3:

n1+n2=60

Group	Variables	Level of stress			Fisher Exact Value	p- value	
		Mild	Moderate	Severe			
Female spouse	Age in years						
	20-30	2	15	5	0.2	1.0	Not significant
	31-40	0	6	2			
	Educational status						
	Upto 10 th	2	5	4	1.8	0.35	Not significant
	Upto graduate	1	13	3			
Post graduate	0	2	0				
Male spouse	Age in years						
	20-30	0	5	2	3.6	0.75	Not significant
	31-40	4	12	5			
	>40	0	1	1			
	Educational status						
	Upto 10 th	0	6	5	4.3	0.24	Not significant
Upto graduate	3	9	3				
Post graduate	1	3	0				

In Table 3 Fischer's Exact test was used to find the relationship between the age and educational status and level of stress related to infertility among female and male spouses. The p- value was found to be more and was not significant at 0.05 level of significance. Therefore no statistically significant relationship was found between the stress related to infertility among men and women and their age and educational status.

Discussion

The present study showed that 70% females and 60% of males having infertility had moderate level of stress. A similar descriptive co-relational study was conducted by Vas [10], to assess the level of stress of childless couples. Result showed that both husband and wives had moderate stress due to childlessness. Schmidt, Holstein, Christensen and Boivin [11] conducted a study communication and coping as predictors of fertility problem stress. Result showed that among both men and women, difficulties in partner communication predicted high fertility problem stress (odds ratio for women, 3.47, 95% confidence interval 2.09-5.76; odds ratio for men, 3.69, 95% confidence interval 2.09-6.43). Another prospective study conducted by Ramos, Gamero, Canavaro and Soares [12] provided contradictory findings. Women reported greater global stress than men and higher specific stress in terms of social concerns, sexual concerns, and need for parenthood. Although both men and women facing male infertility reported higher

global stress in the present study.

In the present study no significant difference was found between mean stress score related to infertility among female and male spouses. The findings of the study conducted by Sahhatie, Mirghafourvand and Rahimi [13], were contrasting to the present study findings. It indicated that there was statistically significant difference in the perceived stress between men and women.

Present study findings indicated no significant relationship between stress related to infertility among female and male spouse and their selected demographic variables viz, age and educational status. A similar descriptive co-relational study was conducted by Vas [10], to assess the level of stress of childless couples. There was found to be no association between the stress of couples and selected demographic variables viz age, educational status. Sahhatie, Mirghafourvand and Rahimi [13] conducted a similar study. The findings showed that the variable of monthly income sufficiency for living expense, occupation, type of current treatment, method of treatment, etiology of infertility, methods of contraception were the predictors of perceived stress.

Conclusion

Child is an important member in the family. Infertility happens regardless of class, race or social background. Infertility can threaten a woman's

identity, status, economic security and consequently be a major source of anxiety. The Objective in this study was to assess the level of stress related to infertility among female and male spouse. The study showed that 70% females and 60% of males having infertility had moderate level of stress. The informational booklet was distributed at the selected ART centre with a view to enable the couples in management of stress related to infertility. The nurses can serve as liaison between couples having stress due to infertility and the community resources which can be instrumental in equipping the couples with effective coping strategies to manage their stress. These community resources can be counseling services, self- help groups, and telephone help lines.

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