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ABSTRACT

Objective: To assess psychological morbidity amongst infertile couples.

Study Design: Cross-Sectional study.

Place and Duration of Study: This study was carried out at MAS Infertility Clinic, Rawalpindi from August 2010 to January 2011.

Materials & Methods: A total of 30 subjects (15 couples) were included in the study. After taking an informed consent, they were asked to complete a questionnaire. Depression, Anxiety and Stress Scale (DASS) questionnaire was used for this study. Data was analyzed using SPSS version-14 and t-test was applied to see the significance in differences.

Results: Majority of couples were over 30 years of age and were married for more than 5 years. Vast majority (73.3%) were living in joint family system. Psychological morbidity, particularly anxiety and depression affected significantly ($p=0.05$) female partner. However no significant relationship was observed between the cause of infertility or duration of infertility and psychological manifestations.

Conclusion: This study presents pragmatic evidence regarding the psychological health of infertile couples in our society. Findings suggest that high levels of stress and depression exist in these couples, which not only affects their physical health, but also their psychological well being. It highlights the importance of providing psychotherapeutic help along with treatment for the cause of infertility.

Key Words: *Infertility, Infertile couple, Psychological morbidity, Depression, Anxiety and Stress*

Introduction

Infertility is defined as failure to conceive after a year of regular intercourse without contraception. Infertility is the major life crisis particularly in our society. It comes as a severe shock to couples who have probably taken their fertility for granted. It cannot be denied that infertility is a deeply distressing experience for many couples.¹ Couples suffering from infertility have a tough time admitting that they have a problem as they feel that they have failed in their basic role of reproduction. When they are not successful in treatments they feel that they and their marriage is a failure.² This life crisis can lead to many emotional and

psychological reactions. It presents them with one of their first major crises together.

It may affect the couple's inter-personal relationships, marital, social and sexual aspects of life.

Infertility can cause depression, anxiety, social isolation and sexual dysfunction.^{3,4}

That is why the impact of infertility on the psychological well being of couples has been the object of increasing attention in recent year many studies have reported psychological symptoms and problems in infertile couples. These psychological symptoms can be the cause of infertility or the consequence of it or both. A study found that infertility has a significant effect on psychological health of couples. They suffer from loss of self-esteem, sadness of mood, fear, sexual dysfunction, depression, guilt, anxiety, frustration, emotional distress.⁵ Among the psychological problem depression, anxiety and stress are most

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commonly reported. Several studies have demonstrated that anxiety has a detrimental effect on fertility.⁶ and the reduction of anxiety increases pregnancy rate.^{7,8} Men and women with infertility experience poor self esteem and loss of physical potency and feeling of stigma in the society, which ultimately leads to elevated distress and great difficulties for the couple.⁹ Different tools used for measurement of depression, anxiety and stress include Depression Anxiety Stress Scale (DASS).^{10,11} BECK Depression Inventory (BDI).¹² and Symptom Check List (SCL-90-R).¹³ Eventually these all yield comparable results.^{11, 12, & 13} We have used, in this study DASS for the reason of convenience and simplicity. The present study focuses on the psychological morbidity of Pakistani couples attending an infertility clinic. The Depression Anxiety Stress Scale (DASS) is used to assess psychological morbidity which is increasingly used in diverse clinical settings.

Materials and Methods

This was a cross-sectional study of psychological morbidity in infertile couples attending MAS Infertility Clinic in Rawalpindi, from August 2010 to January 2011. All infertile couples attending MAS infertility clinic for the first time were asked to participate in this prospective, cross sectional study. Thirty patients (15 women, 15 men) were entered into the study. The couples were asked, after informed consent to complete the questionnaire separately in the clinic. The Depression Anxiety Stress Scale (DASS) questionnaire was used for the study.¹¹

Study Measures

The psychological morbidity was assessed using the Depression Anxiety Stress Scale (DASS).¹¹ The Depression Anxiety Stress Scale (DASS) is a 42-item self-report measure of anxiety, depression and stress which is increasingly used in diverse settings. The DASS has three sub-scales i.e. Depression, Anxiety and Stress. Each of the three DASS scales contains 14 items and scores on each subscale range from zero to 3 indicating did not apply to me at all to applied to me very much. The alpha reliability of the instrument for this study was 93, which is highly significant. Patients' demographic and clinical characteristics were also recorded on history taking proforma. Data were analyzed through SPSS-14 by applying different statistical tests. Student t- test was used to measure the significances.

Results

A total of 30 subjects, 15 male & 15 female (15 couples) were included in the study. Age of the couples ranged from 25-30 years in 11, 31-35 years in 13 and more than 35 years in 6 subjects. Only 8(26.7%) were living independently while 22(73.3%) were living in joint family system. Eight (26.7%) couples were married for more than 10 years, ten (33.3%) for 6-10 years and 12 (40%) for up to 5 years. In majority (73.3%) both male and female factors were identified as the cause of infertility. Female factor alone was responsible in 6(20%) females and no cause of infertility could be determined in 2(6.7%) couples. Majority (28/30) of the subjects were found to have psychological morbidity. However, manifestations were moderate in most (53.3%) of them. Anxiety

and depression was observed in all affected (93.3%) subjects where stress was seen in 86.6%. All three were seen in 66.7%. Details are shown in Figure 1. Significant gender differences were observed. DASS total score was significantly ($p=0.05$) higher in females and so, were the manifestations of anxiety and depression. Details are shown in table-I. No significant relationship was observed between the cause of infertility and psychological manifestations in either of the gender (Table-II). There was also no significant relationship between the duration of infertility and psychological morbidity in both sexes (Table-III).

Discussion

This study investigated psychological morbidity among infertile couples attending infertility clinic. We observed that 93.3% of infertile couples suffered from different levels of depression anxiety and stress (Figure-1). In the present study the psychological morbidity was assessed using the Depression Anxiety Stress Scale (DASS).¹¹ It is reported by Siebel and Taymor using BECK Depression Inventory (BDI).¹² that overall percentage of psychological problems in infertile couples range between 25 and 60%.¹² Another study carried out by Downey J using Symptom Check List (SCL-90-R) demonstrated that 74.6% patients reported changes in their mood.¹³ Prevalence Psychological morbidity appears to be much higher in our society. This may be the result specific religious and cultural effects. Psychological difficulties of infertile patients are complex and influenced by a number of factors such as gender differences, cause and length of infertility. Risk factors that predispose an

individual to anxiety and depression during infertility are being female, age over 30, lower level of education, lack of occupational activity, a male cause for infertility, and infertility for 3-6 years. Duration of infertility also affects the psychological state of the couple as 2-3 years infertility had more depression / anxiety than those couples who suffer from infertility for more than 6 years.^{14, 15} We also observed that it was female gender which was affected more. In our study there was also no significant relationship between the duration of infertility and psychological morbidity in both sexes Similar results have also been reported by many others.^{16,17,18} One reason for such findings is due to the fact that usually women are more vulnerable to psychological problems. In our society women especially get more stigmatized regardless of the diagnosis of infertility and they carry more burden of being labeled as infertile from all sections of society. It causes more distress and decline in health-related quality of life amongst infertile females.^{19,20} In various studies it is observed that when the male partner is responsible for infertility in the couple the reaction of the male partner is very different from the couple in which the diagnosis was female, mixed or unexplained infertility. This was not observed in our study. This may be because in our study in majority there was a male as well a female cause for infertility. Therefore, our study analysis showed that no significant differences in the psychological morbidity when aspects of duration of infertility and causes of infertility (Table II, III) were considered. These results are in line with previous studies.²¹ A possible explanation might be

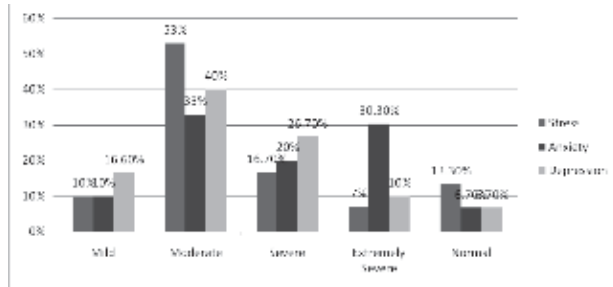


Figure 1: Levels of Depression, Anxiety and Stress Amongst Infertile Couples

Table-I: Mean, SD and t-value of Infertile Couples (Male and Female) on the total scores of DASS and its Subscales (N = 30)

Subscales	Gender (Males) (n = 15)		Gender (Females) (n = 15)		t
	M	SD	M	SD	
DASS (total)	50.00	18.16	62.93	16.27	-2.054*
Depression	16.33	6.11	21.27	6.91	-2.070*
Anxiety	14.07	6.95	18.73	6.43	-1.908*
Stress	20.73	6.72	23.93	4.62	-1.519

df = 28, *p < .05

Table-II: Mean, SD and t-value of Causes of Infertility on the Scores on the total scores of DASS and its Subscales (N = 28)

Subscales	Causes of infertility (Female factor) (n = 6)		Causes of infertility (Both) (n = 22)		t
	M	SD	M	SD	
DASS (total)	55.00	17.38	54.41	17.09	.075
Depression	17.83	7.25	18.36	6.76	-.168
Anxiety	16.33	6.65	15.55	6.43	.264
Stress	22.33	5.09	21.45	5.64	.345

df = 26, p = n.s

Table-III: Mean, SD and t-value of Duration of Infertility on the total scores of DASS and its Subscales (N = 30)

Subscales	Duration of infertility (<10 years) (n = 22)		Duration of infertility (>10 years) (n = 8)		t
	M	SD	M	SD	
DASS (total)	54.27	18.89	62.50	15.54	-1.101
Depression	17.82	6.79	21.50	6.82	-1.311
Anxiety	15.27	7.21	19.50	5.66	-1.494
Stress	22.27	6.54	22.50	3.96	-.092

df = 28, p = n.s

that the infertility leads to similar experiences by all men and women although they might express themselves in different ways. In the light of above we recommend that more attention should be given to health education and awareness about reproductive health for male and

female both. Couples should be advised to seek treatment early and should receive proper counseling and psycho-education.

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