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Psychosocial Effects of Infertility among the Childless couples at a Specialized Fertility Centre in Dhaka, Bangladesh

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Abstract:

Objective(s): *To identify the common psychosocial effects of infertility among the childless couples of Bangladesh.*

Materials and Methods: *This cross sectional quantitative survey was conducted at a tertiary level fertility center in Dhaka, Bangladesh from November 14, 2012 to November 30, 2012. Respondents were chosen by judgment sampling. Only the couples without any child were chosen for interview. Sixty-six couples were interviewed and three couples refused who came for treatment at the center. Primary data was collected from the respondents with preformed questionnaire. Informed written consent was taken before the interview, from both partners or only one partner where the other was absent.*

Results: *The mean ages of the men were 36 years and women were 28 years. The mean age for age at marriage of men and women were 29 and 22 respectively. Among the psychological effects, stress and anxiety were common in both men and women. Family problems were found less among the respondents. Only significant one that was found in both men and women was the pressure from family members, which was found in about one third of the respondents. Social effects were not found among half of the respondents. The other half avoided family gatherings (16%), meeting friends (13%), social gatherings (10%) and 15% respondents said that they do not like to go out at all.*

Conclusion: *The psychosocial effects of infertile couples can lead to depression, frustration and sometimes aggression making them dysfunctional social beings. It also decreases work productivity and quality of life. Necessary preventive measures should be taken through appropriate public health interventions like patient counseling, awareness campaign etc. to avoid the psychosocial consequences.*

Key Words: *Infertility, Psychological effect.*

Introduction:

Reproduction is considered one of the main basic necessities of humans and a psychological crisis may occur when something interferes with their ability to reproduce which has an impact on various aspects of marital life, social relationships, life objectives, self-image and sexual relations.[1] Infertility is a growing social problem. The desire to have a child is the strongest that people experience, and infertility is ranked among one of life's greatest stresses, similar in intensity of having a life threatening illness, which also affects the psychological harmony of sexual life and social function.[2]

Infertility is generally referred as the inability of a couple to have a child. Global estimates of infertility range between 8 and 12% of couples with women of childbearing age, affecting between 50 and 80 million people.[3] But the exact prevalence of infertility in Bangladesh is difficult to ascertain.[4] There are various causes and factors of infertility. It is estimated that approximately one-third of cases of infertility are due to male factors, one-third to female, and the remaining third to a combination of both male and female factors.[5]

However, infertility is not solely a medical problem. The psychological consequences of infertility have been studied and the occurrences of stress, anxiety, depression and marital difficulties, as well as other symptoms have been reported.[6,7] Although infertility has effects on couple's mental health, different psychological factors have been shown to affect the

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reproductive ability of both partners through different mechanisms; such as, depression could directly affect infertility by elevating prolactin levels, disruption of the hypothalamo-pituitary-adrenal axis and thyroid dysfunction.[8]

Infertility has a wide spectrum of psychological and social effects. Motherhood if not only, is the primary culturally available identity for a woman in Asia.[9,10] So, for women it can result in role failure and social stigmatization within the household and may lead to physical and psychological abuse and in some cases life threatening medical interventions.[11-14] In general, in infertile couples women show higher levels of distress than their male partners; however, men's responses to infertility closely approximate the intensity of women's responses when infertility is attributed to a male factor.[15] Emotional stress and marital difficulties are greater in couples where the infertility lies with men.[8] So, it is important to explore the psychological effects of infertility in not only women but also men.

As an overpopulated country, fertility control has been the main focus of health policy in Bangladesh.[16,17] As a result infertility never received attention as a public health problem.[18] But the people, who are unable to have a child, are considered undesirable and unacceptable by society and fall into the 'process of exclusion'.[19] In a culturally influenced and stigmatized society like Bangladesh childlessness or infertility is much more than just medical illness. Hence, infertility in Bangladesh deserves special attention.[18]

It is important to know the psychological effects of infertility and the factors associated with it so that the problem can be addressed in an appropriate way from health care perspective for effective management of the psychological, familial and social consequences for a healthier well being of the couples. Patients can be managed with proper psychological counseling as infertility not only causes these effects but can also be caused or persist due to these infertility induced psychological conditions.

Materials and methods:

This cross sectional study was conducted for two weeks from November 14, 2012 to November 30, 2012 at a specialized tertiary level facility for infertility treatment in Dhaka, Bangladesh. Considering the socio-cultural values, a center based study seemed appropriate to collect data. Because couples with such problem tend to open up and talk about their problems where they come for treatment and feel secured with their personal information. In a community based setting the couples might not had been comfortable or feel secure to share the information about their problems.

The study population was couples, who came for treatment at the center. Patients are referred from different parts of the country. One hundred and thirty five couples were interviewed. Three couples denied to take part in the study as they did not feel comfortable and secured enough with their personal information in spite of ensuring them about maintaining anonymity and confidentiality.

A quantitative survey was carried out to answer the research questions. A semi structured questionnaire was employed as the tool for primary data collection. Pre-testing of the questionnaire was done in the center before commencing the study. Necessary modifications of the questionnaire were done following pre-testing.

Information was collected from primary sources. Primary information was collected from the couples with a semi structured questionnaire by face to face interview. Both partners were interviewed only in those cases where both husband and wife were diagnosed with infertility. Primary quantitative data on socio-demographic characteristics (age, age at marriage, duration of marriage, level of education, employment, occupation, stress at work, health seeking behavior), and psychological, familial and social problems or impacts of infertility were collected from the participants.

Data entry was done by using SPSS. Dataset was created for both SPSS and STATA-12 software. Descriptive analysis of the collected data was done using STATA-12. Bivariate analysis of the data was conducted using SPSS software.

Written approval for the study was obtained from the center before conducting the study. All participants were told that participation was voluntary and non-participation would not affect their treatment. Only volunteering couples were interviewed. Informed written consent was taken from all the participants prior to the interviews. Strict confidentiality of the information was ensured at all levels and personal information will not be disclosed without the permission of the patients, and will only be used for research purpose.

Results:

Among the 66 couples, the women alone were responsible for infertility in 38 or 57.6% cases and men alone in 24 or 36.4%. Both partners were responsible in 6% cases.

The total number of respondents were 70. Among them 42 were female and 28 were male. All the respondents were over 18 years of age. Among the women, the ages of the respondents ranged from 19 to 40 years with mean age 28 ±4.82 years. The range of ages for the male respondents was 25 to 45 years with mean age 36.5 ±5.45 years.

Table-I

Age group of male and female respondents with frequency and percentage.

Age Group n=70	Frequency	Percentage
Female		
<20 years	3	7.14
21-30 years	29	69.05
31-40 years	10	23.81
Total	42	100
Male		
21-30 years	4	14.29
31-40 years	19	67.86
>40 years	5	17.86
Total	28	100

The age at marriage of the female respondents ranged from 14 to 33 years with mean 21.83±4.82 years. In males the range was from 18 to 40 years with a mean of 28.61±4.79 years.

Most of the males (46.43%) and females (50%) were university graduates. Among the 70 respondents, 38 were employed and 32 were unemployed. All the men were employed and 10 out of the 42 females are employed.

Data was collected only on the psychological, familial and social effects of infertility that were found in the literatures. The target was to determine the common psycho-social effects of infertility in Bangladesh. The intensity or the grades of the effects have not been assessed in this study.

Stress was found in 26 out of the 42 females which were about 62% of the female respondents. Three-fourth of the males were stressful about their condition. Anxiety was found among 32 (76%) out of 42 females and 20 (71%) out of 28 males. Depression was relatively less among the respondents. About 45% females and 43% males were found depressed with their infertile condition.

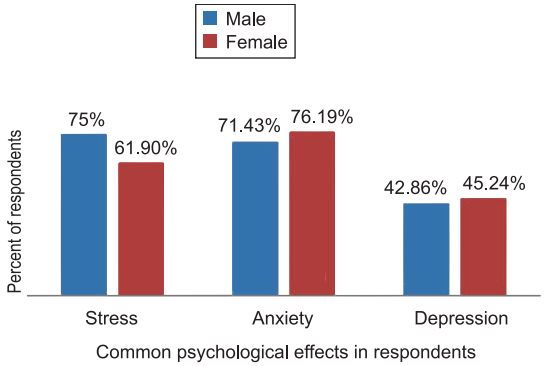

Fig.-1: *Common psychological effects of infertility in male and females.*

Among the familial problems, marital problem was found in 7 respondents out of 70. Sexual problem with partner which is unwilling to have sexual intercourse as stated by the respondents was found in 9 couples. Pressure from family members to try to have a child is relatively more common in women than in men. Fifteen women (36%) reported to have been pressurized or told repeatedly by other family members to try and have child which was found to be eight (28.57%) in men. Marital insecurity was not common among the respondents. None of the males had any marital insecurity and only four females out of 42 had marital insecurity. Physical abuse due to infertility was reported by only one couple, which was following a quarrel.

All the social effects were found to be more or less common to some extent. Eleven (16%) out of 70 respondents avoided family gatherings. Nine (13%) out of 70 respondents avoided their friends. Seven (10%) respondents said that they avoid social parties, invitations or gatherings due to their situation. Ten (14.49%) respondents said that they don't like to go out at all and seven of them were females and the rest three were males.

Bivariate analysis was done to see the association of individual's psychological, familial and social effects of infertility against the duration of marriage. The aim was to identify the components of the effects that increase with the duration of marriage. Analysis was

conducted individually for men and women, as well as combined analysis. Pearson Chi-Square test was done for all the components as the variables were categorical. Fisher's Exact Test was also done for the components that have a cell frequency of less than five. Any value less than 0.1 was counted as statistically significant considering 90% confidence level.

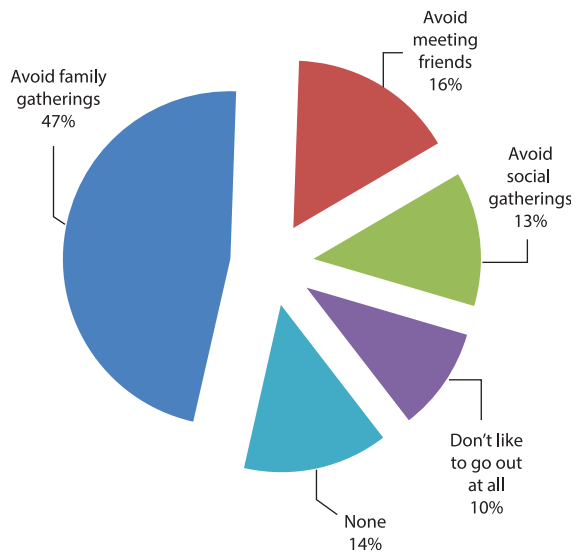

Fig.-2: *Social effects of infertility.*

No statistical significance was found in any component among the women. But, among men, 'stress' and 'pressure from family members' were found statistically significant. Significance of stress was 0.008 in Pearson Chi-Square test and 0.010 in Fisher's Exact Test. This means stress was more in the male respondents who had been married for more than five years than the one less than five years with infertility. The values of pressure from family members was 0.003 in Pearson Chi-Square test and 0.004 in Fisher's Exact Test. Men married for more than five years with infertility seemed to face more pressure from family member than the ones with less duration. These two components in men were found statistically significant and directly proportional to the duration of marriage.

In the combined analysis of men and women, only one component, 'pressure from family members' was found statistically significant. The significance in Pearson Chi-Square test was 0.086 and was directly proportional to the duration of marriage.

Table-II

Statistical significance of components in bivariate analysis.

Component	Gender	Pearson Chi^2 Test	Fisher 's Exact Test
Stress	Male	0.008	0.010
Pressure from family members	Combined (Male and Female)	0.086	-
	Male	0.003	0.004

Discussion:

The study presents results on the demographic characteristics and the common psycho-social effects of infertility among 66 couples. The woman alone was responsible for the couple's infertility in about 58% cases, male alone in 36% cases and combined in 6% cases.

Most of the men and women were well educated. The women were more educated compared to the men among the participants. About 50% women were university graduates, where 46% men completed university. College education was also more in women, where about 29% women completed college and only 7% men completed college education. The reason behind this can be the unequal number of men and women in the study. Another reason for this can be the family responsibility and socio-cultural trend of Bangladesh, where the men are usually responsible and expected to earn to run the family. To fulfill that responsibility, many men stopped studying after primary school and started working. This is more common in the rural areas of Bangladesh. It becomes more evident if we look at the employment condition of the respondents of this study. All the men in the study were employed and only 24% (10 out of 42) of the women were employed. Three-fourth of the female respondents were housewives and the rest were employed, which can be a reason for the women to be pressurized by the family members more than the men.

The results of the psychological, familial and social effects indicate personal suffering in both men and women, family problems and some social consequences. Stress seemed to be more in men than in women. This is probably because inability of having a child means their failure of role as a male and in extension a threat to their manhood. In the social context of Bangladesh, the reason for the men to be more stressed because they are usually eager

to have an heir to their families and sometimes inability to do so is regarded as disgraceful in the society, especially in rural Bangladesh. Anxiety and depression were more or less similar in both sexes with a little higher prevalence in women. Anxiety is a common psychological effect among couples with infertility. This is mainly because of the uncertainty of having a child. Depression was common in about 45% men and women. This can be an unavoidable psychological effect in cases of long term infertility. Loss of self-esteem, anxiety, depression, hopelessness, guilt and marital difficulties are all recognized consequences of infertility.[20]

Family and social effects of infertility were not that prominent in the study probably because of the small sample size. Another probable reason can be the socioeconomic status of the couples. Most of the couples were financially solvent and from a relatively higher socio-economic status where these effects can be found less. However 'pressure from family members' was common in both men and women, which was also found significant in the combined analysis. It is a very important component considering the social and family structure of Bangladesh. Some of the couples seemed to avoid family (16%) and friends (13%) because of their condition. And some (14%) said that they did not like to go out at all. One of the respondents said that whenever they go to such gatherings people ask about their condition and if there was any hope for them with the ongoing treatment. But the respondent said that these used to make them uncomfortable. It is important that family and friends should understand the situation and gravity of the problems related to infertility and be compassionate about it and deals carefully with it, so that their loved ones do not get hurt.

One of the weaknesses of the study was the time limitation. The study was of very short duration with a small sample size. Qualitative study could not be done to explore the psychological, familial and social effects of infertility due to time constrain and for the convenience of the center.

Conclusion:

The study outcomes suggest that infertility results in various psychological, familial and social effects among the infertile couples. They suffer both physically and mentally. Large scale mixed method studies are needed to be conducted to acquire further in-depth knowledge about the most prevalent causes, factors, and gravity of psychological, familial and social effects of infertility. A public health strategy is needed for proper prevention of infertility by reducing the risk factors to decrease the incidence of infertility and improve quality of life by avoiding the psychosocial consequences.

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