Original Article

Psychological evaluation of infertile couples: Results of a questionnaire survey

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ABSTRACT

Introduction: Infertility is a global problem with a wide range of sociocultural, emotional, physical, and financial problems. This study aims to identify couples, with an unfulfilled desire for a child, who require psychological support. **Materials and Methods:** In this study, a total of 158 couples were selected who filled up the questionnaire. The questionnaire comprised 19 questions, 15 in the psychological evaluation test (PET) to detect emotional reactions to the infertility-related stressors and four close-ended questions to find out the couple's attitudes toward childbearing and their future. The data were statistically analyzed by Mann-Whitney *U* test and Fischer's exact test, with the level of significance at 5%. **Results:** The mean age of the men was 35.2 ± 3.5 years, while that of the women was 28.4 ± 2.8 years. Male infertility was diagnosed in 28 couples, female infertility in 47, both male and female infertility in 12, and the remaining 71 couples were either not diagnosed or had unexplained infertility. The mean years of married life was 5.6 ± 3.2 years. Of all the couples, 148 were diagnosed with primary infertility and 10 had secondary infertility. The mean positron emission tomography (PET) score for women and men of 28.3 ± 8.4 and 25.6 ± 7.2, respectively, was not statistically significant. **Conclusion:** Both women and men give great importance to the inability to bear a child; they were supportive of their spouse, but social stimuli provoked their stress. Women were more emotional and sensitive when personal feelings were considered. PET score >30 required additional psychological support to cope with normal life.

Keywords: Infertility, psychological, evaluation

INTRODUCTION

Infertility is a global problem. According to the World Health Organization (WHO) estimates, 8-12% of couples worldwide have difficulty in conceiving a child.[1] The increasing magnitude of infertility issue causes life crisis with a wide range of sociocultural, emotional, physical, and financial problems. Infertility rates vary among different countries ranging from less than 5% to over 30%.[2] This problem of infertility has gained importance due to the considerable increase in the number of people who are diagnosed with this condition, and also due to the extraordinary scientific and technological progress made in recent decades in the field of assisted reproduction and to the increased awareness of this phenomenon.

Despite the fact that 40% of infertility is male-related, 40% is female related, and 20% are related to both or unknown causes; in most communities, the inability to conceive is attributed to women. Though infertility is not a disease, its treatment affects all aspects of peoples lives, causing psychological and emotional disturbances leading to frustration, depression, turmoil, anxiety, hopelessness, guilt, and a feeling of worthlessness in life. The overall prevalence of psychological problems in infertile couples is estimated to be 20-60%, which is attributed to a complexity of factors like gender, cause, duration of infertility, treatment method, cost, and outcome.[3-5]

The increased incidence of emotional and psychological consequences on infertile couples indicates the need for psychological support as a part of the medical treatment process. Psychological support not only addresses counseling but also the interactions with the patient(s) from the beginning of their treatment including the registration officer, administrative clerk, physician, and the paramedical staff. Interactions with the patient at different levels will modify his/her level of stress and will provide a supportive environment.

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The aim of this study was to identify couples, with an unfulfilled desire for a child, who require psychological support.

MATERIALS AND METHODS

The study was conducted in the Department of Obstetrics and Gynecology in Indira Gandhi Medical College & Research Institute in Puducherry, India. Indira Gandhi Medical College & Research Institute is a tertiary health center in Puducherry, which caters health needs to the people of the union territory and Tamil Nadu state. Hence, the study group was selected as a representative group of the South Indian population to analyze the psychological impact on infertile couples. Approval from the Ethics Committee of the institution was obtained.

The data were collected from all the couples who attended the infertility clinic at our hospital. Participation in the study was on a voluntary basis. All the participants were assured of anonymity and confidentiality of their responses, and informed consent was obtained. During the period from September to December in 2014, all the couples with fertility problems who attended the clinic for consulting or treatment were invited to participate in the study. Each couple was given a questionnaire, which contained 19 questions (each) for the male and female partners. Of these 19 questions, 15 were from the psychological evaluation test (PET)[6] and four were close-ended questions.

The PET included 15 questions detecting emotional reactions to infertility-related stressors. The responses were assigned four grades with respect to frequency (1 = never or rarely; 2 = sometimes; 3 = many times; and 4 = always). The sum of the responses corresponded to a PET score ranging 15-60 points. PET score of >30 points was defined as the cut off point for the necessity of more specific psychological advice. Reliability of the PET questionnaire was 0.88 for both male and female questionnaires, determined using Cronbach's α coefficient. The close-ended questions were evaluated using the "yes" or "no" answer to find out the couple's attitude toward childbearing and their future. The questions included the couples, fear about the future, whether the children were a security for them in their old age, and the option to go for assisted reproduction or adoption of a child. The data were statistically analyzed by Mann-Whitney *U* test and Fischer's exact test, with the level of significance at 5%.

RESULTS

The sample consisted of 158 couples who filled in the questionnaire. Mean age of the men was 35.2 ± 3.5 years, while that of the women was 28.4 ± 2.8 years. Male infertility was diagnosed in 28 couples, female infertility in 47 couples, and both male and female infertility in 12 couples. The remaining 71 couples were either not yet diagnosed or had unexplained infertility. The mean years of married life was 5.6 ± 3.2 years. Of all the couples, 148 were diagnosed with primary infertility and 10 had secondary infertility.

The PET questionnaire and the close-ended questions are shown in Table 1. The responses of infertile women and men for the PET questions are tabulated in Table 2. The mean PET score for women was 28.3 ± 8.4 while that for men was 25.6 ± 7.2. There was no statistical difference between the two scores (Mann-Whitney *U* test). The low-frequency responses (sum of responses with score of 1 and 2) and high-frequency responses (sum of the responses with a score of 3 and 4) were compared for both women and men for all the questions and the *P* value was tabulated [Table 2]. The responses to the close-ended questions are tabulated in Table 3.

DISCUSSION

Infertility, as the inability to conceive after 1 year of maintaining regular unprotected sexual intercourse (as per WHO) constitutes a special kind of clinical problem. The findings of this study provide more insight into the psychological impact on infertile couples in the South Indian population.

Table 1: Questionnaire

Question no.	PET questions
Q1	Are you irritated by the fact of not having children?
Q2	Relatives and friends talk about the fact and I do not feel well.
Q3	I am upset when I am invited to children's birthday parties.
Q4	I am annoyed when a friend or a relative becomes pregnant
Q5	Are you depressed every time you menstruate?
Q6	Is your sexual relationship impaired because you have not become pregnant?
Q7	Is your professional activity impaired because you do not have children?
Q8	Do you feel inferior to other woman because you do not have children?
Q9	Are you a person who is always afraid of treatment?
Q10	Do you think you might go crazy if you do not have treatment?
Q11	Do you feel tachycardia, tremors, and sweating when you think you do not have a child?
Q12	Do you feel the sensation of emptiness because you do not have a child?
Q13	Is your daily relationship with your husband impaired because of not having a child?
Q14	Does the difficulty in having children make you not want to leave home and be isolated?
Q15	Do you think about your difficulty in having children in daily life?
	Close-ended questions
Q16	I am afraid of the future.
Q17	Children are a security for old age.
Q18	I like to go for assisted reproductive technology (ART)
Q19	I want to adopt a child.

Table 2: Responses of infertile women and men to the PET questions

No.	Low-frequency responses (score 1,2) *n* = 158		High-frequency responses (score 3,4) *n* = 158		*P* value*
	Women	Men	Women	Men	
Q1	68	96	90	62	0.001
Q2	57	90	101	68	<0.001
Q3	58	92	100	66	<0.001
Q4	66	88	92	70	0.008
Q5	74	80	84	78	0.28
Q6	98	100	60	58	0.45
Q7	116	121	42	37	0.30
Q8	60	66	98	92	0.29
Q9	72	70	86	88	0.45
Q10	55	92	103	66	<0.001
Q11	132	138	26	20	0.21
Q12	60	92	98	66	<0.001
Q13	102	110	56	48	0.20
Q14	107	114	51	44	0.23
Q15	58	90	100	68	<0.001

**P* value <0.005 was considered significant

Table 3: Responses of infertile women and men to the close-ended questions

No.	Yes $n = 158$		No $n = 158$	
	Women (%)	Men (%)	Women (%)	Men (%)
Q16	122 (77.2)	103 (65.2)	36 (22.8)	55 (34.8)
Q17	120 (75.9)	100 (63.3)	38 (24.1)	58 (36.7)
Q18	70 (44.3)	62 (39.2)	88 (55.7)	96 (60.8)
Q19	5 (3.1)	2 (1.3)	153 (96.8)	155 (98.1)

Many studies have reported a significant difference between the psychological behavior of women and men, with mostly women having more stressful experience than men. A study in Brazil by Franco[6] showed a mean PET score of 27 ± 8 in women, which was significantly higher than that of men with a PET score of 22 ± 7. Our study did not show significant difference in the PET score of women and men. This could be explained by the fact that in this study, even men placed a lot of importance on the inability to bear children. For them, children are those who will continue their family lineage and will provide security for the future. This is one of the cultures in India. This result is consistent with the study done by Wiersema on Viatnamese couples.[7]

Though there was no significant difference in the mean PET score between women and men, the individual *P* value widely varied for different questions. Questions relating to social behavior, like being questioned by friends and relatives, being upset for attending other children's birthday parties, and being upset after hearing that a friend is pregnant yielded significantly more high-frequency responses from women ($P < 0.01$). This indirectly suggests that women are more affected and sensitive in their social environment when compared to men, and they tried coping with the situation by avoidance and confrontation. This is consistent with the study by Franco.[6] Insistence by relatives and friends provoked high-frequency responses in both women (64%) and men (43%). The couples were disturbed by questioning and in fact, this further affected their daily relationships with others. Family interference is felt as a negative pressure.[7] A study by Lee[8] reported less satisfaction with acceptance by the in-laws, in case of wives with female factor infertility.

Questions 5 to 9 showed a similar response across infertile women and men. Menstruation was a significant factor of depression in both women and men, with more than 50% in both categories being upset of not conceiving during a treatment cycle. But Franco[6] reported that women were affected more than men (*P* value < 0.001). When considering the sexual relationship between the partners, many studies have reported that infertility worsens sexual relationship.[9] Our study showed only 38% of women and 37% of men had their sexual relationship affected. This probably shows a positive understanding between the couples. Nearly 62% of women and 58% of men have answered that they feel inferior when compared to their friends who have children. This feeling lowers the self-esteem and self-worth of our couples. They feel that their identity is lost and this feeling has undermined their relationship with others.

Further, majority of the women had feelings of going crazy without a child (65%), a sensation of emptiness in life (62%), and difficulty in doing daily activity (63%). These high-frequency responses were significantly higher than men, again indicating that women are more sensitive and emotional, though their partners are more understanding. Gender differences in coping with infertility have been noted in other studies.[10,11] Not many women and men in our study were showing somatic reactions in response to aggravation of anxiety.

Regarding the couple's attitude toward the future, more than 70% of women and 60% of men considered children as their future, their security for old age, and the inability to conceive made them afraid of their future. Dependence on children, consolidation of their future, and children taking care of their parents were motivations for this response. There was an equivocal response regarding opting for assisted reproduction technique because the couples were worried about the cost and the physical and emotional stress. Less than 5% opted for adoption, with women constituting 3% and men 1.3%. The reason for this response was that they wanted their own child and an adopted child was not their biological child.

CONCLUSION

This study, therefore, shows that both women and men gave great importance to the inability to bear a child; they were supportive of their spouse, but social stimuli provoked their stress. Women were more emotional and sensitive when personal feelings were considered. PET score of >30 indicated that additional psychological support was required to cope with normal life. Our couples fear of the future is demanding the need for adequate emotional and psychological support, in addition to the formal infertility treatment in developing countries like India.

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