

Original Research Article


Psychological impact and coping strategies among women with infertility - A hospital based cross sectional study

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Abstract

Background: Infertility rates were highest in women living in urban areas and increases proportionately with level of education. The social consequences due to infertility affect the women more often. It is necessary to identify and treat the amount of stress and various coping methods by infertile women population. We have evaluated psychological impact of infertility and coping strategies employed in women population attending infertility OPD at department of obstetrics in a tertiary care teaching hospital in Tamil Nadu.

Material and methods: This was a hospital based cross sectional study done in 150 women attending infertility OPD at a tertiary care hospital in Tamil Nadu for a period of 12 months from January 2014 to December 2014. A structured and validated proforma was designed for the purpose of data collection. The tool was validated by including the inputs from five experts in the subject area. Categorical variables were presented as frequencies and percentages. Quantitative variables were presented as mean and standard deviation. IBM SPSS version 21 was used for statistical analysis.

Results: Majority of the study subjects belonged to 21 to 25 years of age group 35.7% and 45.5% of the women had recent onset infertility. 17% women had difficulty in falling asleep was reported. 58.9% of the women reported with high levels of anxiety. 26% women have decrease in weight was noticed. Whereas 48.2% women reported feeling guilt and 35.7% women reported feeling of pessimism and suicidal tendency. 16.28% women participants reported to have immersing in household activities followed by 13.95% with hobbies and 11.63% with crying spells.

Conclusion: Our study revealed that infertile women experienced high levels of anxiety, guilt, feeling of pessimism and suicidal tendency. The coping strategy adopted by majority of the women was engaging in household activities and hobbies. There should be parallel psychological counselling should be advocated strongly to all women with infertility taking treatment along with family members.

Key words

Infertility, Coping strategy, Anxiety, Suicidal tendency.

Introduction

Infertility is a disease of reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse [1]. As per Indian National Family Health Survey, infertility rates were highest in women living in urban areas and increases proportionately with level of education [2]. However, many times men are also accountable for infertility [3]. Interestingly, the social consequences due to infertility affect the women more often. It is necessary to identify and treat the amount of stress and various coping methods by infertile women population [4-6]. In this connection we have evaluated psychological impact of infertility and coping strategies employed in women population attending infertility OPD at Department of Obstetrics and Gynecology in a tertiary care teaching hospital in south India.

Material and methods

Study site: This study was conducted in infertility OPD at Department of Obstetrics and Gynecology in Velammal Medical College and Hospital in Tamil Nadu, South India.

Study population: 150 women who had attended the study setting for treatment of infertility

Study duration: The data collection for the study was done from January 2014 to December 2014, i.e. for a period of 12 months.

Sample size and sampling method: Considering the proportion of any outcome to be detected as 10%, with a relative precision of 5%, with 95% confidence level, the sample size required for the study was calculated using the following formula.

$$N = \frac{Z^2 P(1 - P)}{d^2}$$

Where N= required sample size

Z= Z statistic for the level of confidence (95%) - 1.96

P= prevalence (10%)

d= level of precision (0.05)

As per the above mentioned parameters, the sample size required was 139. To account for the non participation of about 10% it is decided to include 150 subjects in the final study.

Inclusion criteria

All the women who attended the study setting for treatment of infertility

Exclusion criteria

Prior history of major psychiatric illness

Study tools: A structured and validated proforma was designed for the purpose of data collection. The tool was validated by including the inputs from five experts in the subject area.

Ethical considerations: Informed written consent was obtained from all the study participants, after explaining the risks and benefits involved in the study and voluntary nature of their participation. Confidentiality of the study participants was maintained throughout the study.

Statistical methods

Descriptive analysis of demographic parameters, duration and perceived economic impact and willingness to undergo treatment was done. Analysis of various symptoms suggestive of psychological illness, impact and coping strategies was also done. Categorical variables were presented as frequencies and percentages.

Quantitative variables were presented as mean and standard deviation. IBM SPSS version 21 was used for statistical analysis.

Results

A total of 150 subjects were included in the study. Majority of the study subjects belonged to 21 to 25 years of age group (35.7%), followed by 26 to 30 years of age group (32.1%). The duration of married life was 3 to 6 years in majority (46.4%) of the study subjects. Twenty seven subjects (17.9%) had married life between 7 to 10 years and 25 (17%) women were married for 11 years or more. Eighteen (11.6%) of the women were illiterates. The proportion women who completed primary, secondary schooling was 8.9% and 47.3% respectively. Graduates and professionals constituted 23.2% and 8.9% of study population. Majority of women hailed from nuclear family (58%) and 59 (39.3%) women reported strained relationship with family as per **Table - 1**.

Table - 1: Descriptive analysis of age groups within the study group (n=150).

| Parameter | Frequency | Percentage |
|---------------------------------------|-----------|------------|
| I. Age groups (Years) | | |
| 20 and below | 8 | 5.4 |
| 21 to 25 years | 54 | 35.7 |
| 26 to 30 years | 48 | 32.1 |
| Above 30 years | 40 | 26.8 |
| II. Duration of married life | | |
| < 3 years | 28 | 18.7 |
| 3 to 6 years | 70 | 46.4 |
| 7 to 10 years | 27 | 17.9 |
| 11 and above | 25 | 17.0 |
| III. Educational qualification | | |
| Illiterate | 18 | 11.6 |
| Primary school | 13 | 8.9 |
| Secondary school | 71 | 47.3 |
| Graduation/diplo | 35 | 23.2 |
| Post Graduation | 13 | 8.9 |

| IV. Type of family | | |
|--|----|------|
| Joint | 63 | 42.0 |
| Nuclear | 87 | 58.0 |
| V. Strained with family partner | | |
| Yes | 59 | 39.3 |

Majority (45.5%) of the women had recent onset infertility i.e. for the last 1 year or below. The proportion of subjects with infertility for the last 2 to 3 years and 4 to 5 years was 24.1% and 14.3% respectively. Twenty four (16.1%) women had infertility for the last 5 years or more. Adverse economic impact was reported by 82 (54.5%) of the women and only 75 (50%) of them were willing for psychological counselling (**Table - 2**).

Table - 2: Analysis of disease related parameters and their impact (n=150).

| Parameter | Frequency | Percentage |
|---|-----------|------------|
| I. Duration of infertility | | |
| 1 year and below | 68 | 45.5 |
| 2 to 3 years | 36 | 24.1 |
| 4 to 5 years | 22 | 14.3 |
| Above 5 years | 24 | 16.1 |
| II. Adverse economic impact of treatment | | |
| Yes | 82 | 54.5 |
| No | 68 | 45.5 |
| III. Willing for psychological counselling | | |
| Yes | 75 | 50.0 |
| No | 75 | 50.0 |

Difficulty in falling asleep was reported by 25 (17%) women. The number of women reported staying asleep, early morning awakening and excessive sleep was 7 (4.5%), 5 (3.6%) and 8 (5.4%) respectively (**Table - 3**).

Eighty eight (58.9%) of the women reported high levels of anxiety. The number of women reporting decreased ability, difficulty with concentration and loss of interest in usual activities were 39 (25.9%), 36 (32.1%), and 48 (38.4%) respectively. Increase in the weight was

reported by 25 (16.6%) of the women, whereas 39 (26%) women reported decrease in weight (Table - 4).

Table - 3: Descriptive analysis of sleep pattern within the study group (n=150).

| Parameter | Frequency | Percentage |
|--|-----------|------------|
| I. Difficulty falling asleep | | |
| Yes | 25 | 17.0 |
| No | 125 | 83.0 |
| II. Staying asleep | | |
| Yes | 7 | 4.5 |
| No | 143 | 95.5 |
| III. Early morning awakening | | |
| Yes | 5 | 3.6 |
| No | 145 | 96.4 |
| IV. Sleeping more than usual time | | |
| Yes | 8 | 5.4 |
| No | 142 | 94.6 |

Table - 4: Descriptive analysis of psychological illness within the study group (n=150).

| Parameter | Frequency | % |
|--------------------------------------|-----------|------|
| High levels of anxiety | 88 | 58.9 |
| Decreased ability | 39 | 25.9 |
| Difficulty with concentration | 36 | 32.1 |
| Loss of Interest in usual activities | 48 | 38.4 |
| Change in the weight | | |
| Increased | 25 | 16.6 |
| Decreased | 39 | 26.0 |
| No | 86 | 57.4 |

Social isolation was reported by 48 (32.1%) women. Seventy two (48.2%) women reported feeling guilt and 53 (35.7%) women reported feeling of pessimism and suicidal tendency (Table - 5). Immersing in household activities was the most common coping mechanism reported by the participants, which was seen in 24 (16.28%) participants. The other common coping strategies reported by the study participants was involving in other hobbies

(13.95%), crying (11.63%) and spending with family and friends (10.47%). Being hopeful and concentrating on job was reported by 6.98% of participants each (Table - 6).

Table - 5: Descriptive analysis of psychological impact within the study group (n=112).

| Parameter | Frequency | Percentage |
|--|-----------|------------|
| I. Social isolation | | |
| Yes | 48 | 32.1 |
| No | 102 | 67.9 |
| II. Feeling of guilt | | |
| Yes | 72 | 48.2 |
| No | 78 | 51.8 |
| III. Feeling of pessimism suicidal tendency | | |
| Yes | 53 | 35.7 |
| No | 97 | 64.3 |

Table - 6: Coping strategies employed by the women in study population.

| Coping strategy | Frequency | % |
|-----------------------------------|-----------|-------|
| Immerses in household activities | 24 | 16.28 |
| Involves in other hobbies | 21 | 13.95 |
| Crying | 17 | 11.63 |
| Spending with family and friends | 16 | 10.47 |
| Hopeful | 10 | 6.98 |
| Concentrates on job or profession | 10 | 6.98 |
| Hates married life | 5 | 3.49 |
| No response | 45 | 30.23 |

Discussion

Infertility manifests as a crisis in maternal life, which requires adaptation and coping, especially for women [7, 8]. Women with infertility usually respond towards life in the form of deep sorrow and grief, crying, praying the God. In our study, we made an attempt to reveal the amount of stress and anxiety and their coping technics by women with infertility in south Indian population. Farzadi L, et al. [9]; Ramazanzadeh

F, et al. [10]; and Lemmens GMD, et al. [11] in their studies have already established, women who adopt better coping strategies are more socially dynamic and be likely to express their opinions. A woman suffers from a variety of psychosocial problems because of infertility and they adopt emotion-focused coping methods by Aysel Karaca, Gul Unsal in his study [12].

Conclusion

Our study revealed that infertile women experienced high levels of anxiety, guilt, feeling of pessimism and suicidal tendency. The coping strategy adopted by majority of the women was engaging in household activities and hobbies. However in majority of the women they were no coping response was found. There should be parallel psychological counselling should be advocated strongly to all women with infertility taking treatment along with family members.

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