

## ORIGINAL ARTICLE

# Assessing of Coping Strategies among Infertility Couples Attending Fertility Care Centre in a Tertiary Care Hospital

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## ABSTRACT

**Introduction:** Infertility poses significant challenges for couples, leading to the adoption of various coping strategies to manage the associated stress. Understanding these coping mechanisms is crucial for providing effective support to individuals undergoing fertility treatments. **Methods:** This study was conducted at Saveetha Medical College, Chennai, among infertility couples attending the fertility care center. The Fertility Problem Inventory (FPI) and Brief COPE (Coping Orientation to Problems Experienced) inventory were utilized to assess coping strategies. Data analysis was performed using SPSS software. **Results:** Analysis revealed gender differences in coping strategies, with males exhibiting higher scores across all measured coping mechanisms compared to females. The disparities were statistically significant ( $p < 0.05$ ), highlighting the need for gender-specific interventions. **Conclusion:** Our findings emphasize the importance of tailored management for those who are undergoing Assisted Reproduction Treatment (ART) to improve their surviving skills and overall well-being. These insights can inform healthcare professionals in providing targeted interventions to address the diverse needs of individuals experiencing infertility.

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**Keywords:** Infertility, Coping Strategies, Fertility Problem Inventory (FPI), Brief COPE, Assisted Reproduction Treatment (ART)

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## INTRODUCTION

Infertility is the incapability to get pregnant after at least 1 year of consistent and unprotected sexual intercourse (1). The fertility of women decreases progressively with age, prompting women over 35 years old to seek thorough evaluation and treatment.

The primary and secondary are the types of infertility (2). In the former, the couples are not able to be pregnant even once whereas in latter type where the couples who get pregnant at least once in spite of the outcome like abortion, premature or abnormal implantation causing ectopic or intrauterine pregnancy but they are no longer successful.

World Health Organisation (WHO) noted that the infertility is a important health issue throughout the world affecting millions of reproductive age group people Worldwide. Lack of regular ovulation, blocked fallopian tube, poor quality semen and endometriosis are the common causes for infertility. The WHO International Classification of Diseases identifies numerous primary and secondary causes of infertility in both women and men. Infertility can result from factors related to either gender or a combination of both. Additionally, environmental and lifestyle factors such as heavy alcohol consumption, smoking, and obesity are linked to reduced fertility rates in both sexes (3).

Infertility often leads to psychological distress, including depression, anxiety, and stress among couples (4). Studies suggest that women are more prone to such mental health challenges compared to men in the face of infertility. To navigate these difficulties, infertile couples utilize various choices to handle their own

and social crises. Coping strategies involve individuals' cognitive abilities to effectively handle and regulate stressful situations(5). The option of coping mechanisms depends on the specificity of the crisis and prevailing familial and societal influences(6). However, there is a need for further research to explore which strategies are predominantly employed by the couples. Hence, our study aims to examine the coping strategies utilized by infertile couples seeking treatment at a fertility care center within a tertiary care hospital, contributing to the understanding and support of individuals experiencing infertility.

**MATERIALS AND METHODS**

This is a descriptive cross sectional study conducted in psychiatry unit at Saveetha Medical college, Chennai. The study was carried out over 1 year period starting from October 2022 and till October 2023. All out patients who were diagnosed with infertility undergoing treatment and those who satisfy the inclusion criteria were included in the study. The participants who meet the inclusion criteria, will be recruited from the fertility centre, Outpatient Department after the initial assessment and diagnosis confirmation by the gynaecologist. Consenting Couples was administered following questionnaires during their visit to the centre.

1. The Fertility Problem Inventory (FPI) offers a dependable assessment of perceived stress related to infertility and detailed insights into five distinct areas of patient worry.
2. Brief COPE (Coping orientation to problems experienced) inventory used to know the coping strategies used by patients.

Total duration of the interview was one hour. If male partner was not available during the interview, he was contacted over phone and questionnaire was mailed and data were collected. Telephonic interview with the male partner to collect relevant information for the study and clarification regarding the questionnaire was provided for those who are unable to come in person to the centre.

**Inclusion Criteria:**

1. Couples who have registered in the fertility care centre, SMCH
2. Couples who have given consent to participate in the study
3. Couples at various stages of infertility treatment will be included

**Exclusion criteria:**

1. Couples who refused to participate in the study
2. Female participants whose medical condition interfere with participation in the study
3. Pre-existing psychiatric illness

**Sample Size:**

Previous research found that 54.5% of females reported experiencing depression, 53.6% reported anxiety, and 30.4% reported stress. Among males, the rates were 38.4% for depression, 26.8% for anxiety, and 21.4% for stress. To ensure a 95% confidence level with a margin of error of ±5% around these findings, a minimum sample size of 80 measurements or surveys would be necessary, assuming a prevalence of 50%.

**ETHICAL CLEARANCE**

The study was registered with institutional ethical committee (SMCH-IEC) Saveetha Medical College and Hospital IEC committee :SMCH/IEC/2023/10/027

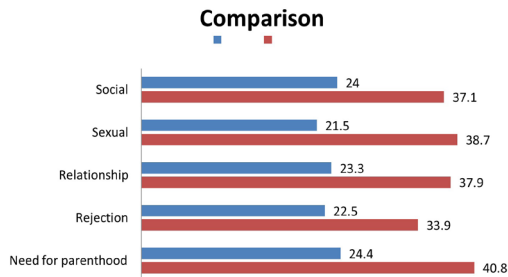
**RESULTS**

Table 1 and Figure 1 illustrate the comparison of Fertility Problem Inventory (FPI) scores between male and female partners. The data shows that female partners expressed significantly higher levels of concern across all evaluated domains, including social life, sexual life, relationship maintenance, fear of rejection, and the desire for parenthood, compared to their male counterparts. These differences were statistically significant (p < 0.05), as determined by independent t-tests.

**TABLE I: Fertility Problem Inventory**

	Min	Max	Mean	SD	Median	IQR	p-value
<b>Social concern</b>							
Male	10	49	24.0	14.4	15	12, 38.5	<0.001
Female	14	58	37.1	13.6	34	23.5, 49.5	
<b>Sexual concern</b>							
Male	8	46	21.5	13.7	12	11, 38	<0.001
Female	19	48	38.7	6.5	40	34, 44.5	
<b>Relationship concern</b>							
Male	10	48	23.3	14.3	14	11.5, 39	<0.001
Female	13	56	37.9	11.8	35	30, 49	
<b>Rejection concern</b>							
Male	8	45	22.5	12.8	15	12.5, 35.5	<0.001
Female	14	47	33.9	9.2	34	28, 42	
<b>Need for parenthood concern</b>							
Male	9	50	24.4	14.5	16	13, 40	<0.001
Female	18	58	40.8	11.2	40	30.5, 52.5	

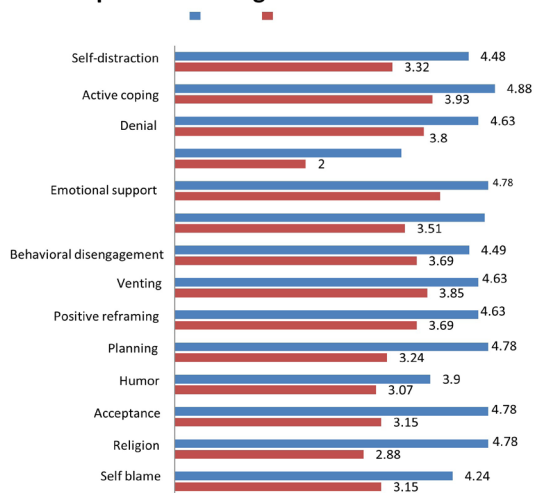
### Fertility problem inventory scores



**Figure 1:** illustrate the comparisons of the Fertility Problem Inventory (FPI) scores between male and female partners. The data indicate that female partners exhibited significantly higher concerns across all measured domains, including social life, sexual life, relationship maintenance, fear of rejection, and the need for parenthood, compared to their male counterparts.

Furthermore, Figure 2 presents the comparison of coping strategies assessed using the Brief COPE inventory. The study investigated various coping mechanisms such as self-distraction, active coping, denial, substance use, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religiousness, and self-blame. The results indicated that males scored significantly higher than females across all coping strategies, with statistical significance observed in each instance ( $p < 0.05$ ), as determined by independent t-tests. These findings highlight gender differences in coping strategies among couples experiencing infertility, emphasizing the need for customized support services to address these variations.

### Comparison of Brief COPE component's average scores



**Figure 2:** Presents the comparison of coping strategies, assessed using the Brief COPE inventory. The study evaluated various coping mechanisms such as self-distraction, active coping, denial, substance use, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religiousness, and self-blame. The results showed that males scored significantly higher than females across all coping strategies, with statistical significance in each instance ( $p < 0.05$ ), as revealed by independent t-tests. These findings underscore the gender differences in coping mechanisms among couples experiencing infertility, highlighting the need for tailored support services to address these disparities.

## DISCUSSION

Infertility presents a formidable obstacle for couples striving to conceive, necessitating the adoption of coping strategies to navigate the associated emotional and psychological burdens. Our study comprehensively examined various coping mechanisms utilized by individuals contending with infertility, ranging from self-distraction to self-blame.

Among these strategies, males predominantly demonstrated avoidance-focused coping mechanisms, notably employing self-distraction and behavioral disengagement, while females tended to favor emotion-focused coping strategies (7).

In the broader context of coping with infertility, resilience emerges as a critical factor. This resilience enables couples to confront challenges constructively, fostering mutual respect and solidarity in the face of adversity. Conversely, studies like that of study in Shiraz, Iran, shed light on the prevalence of passive-avoidance coping strategies among women grappling with fertility issues(8). This inclination towards passive coping may be influenced by hopeful outlooks for miraculous solutions and potentially lower levels of education among participants.

Further insights from Verma et al investigation underscore specific coping methods favored by infertile females, with venting emerging as the most commonly employed strategy, followed by behavioral disengagement(9). Interestingly, instrumental support was found to be the least utilized coping mechanism among respondents. Building upon these findings, our study sought to elucidate gender disparities in coping mechanisms among individuals experiencing infertility.

Upon analysis, our study revealed statistically significant differences between males and females in coping strategies, with males exhibiting higher scores across all measured coping mechanisms. These disparities underscore the importance of considering gender-specific approaches in providing support and interventions for individuals navigating the emotional and psychological challenges of infertility. Such insights hold valuable implications for healthcare professionals and support networks in tailoring effective coping strategies and interventions to address the diverse needs of couples undergoing fertility treatments.

## CONCLUSION

The findings from our study will help the physicians to increase intervention and support services for infertile couples undergoing Assisted Reproduction Treatment (ART) to enhance coping skills of couples to be at risk.

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