

## Studying the Relationship between the Attitude to Infertility and Coping Strategies in Couples Undergoing Assisted Reproductive Treatments

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### Abstract

**Background:** Using appropriate coping strategies has a positive influence on moderating mental pressures caused by infertility and the stress during treatment. Using these strategies needs personal skills and they could be influenced by individual's inner psychological and environmental factors. The aim of this study was to assess the relationship between the attitude toward infertility and coping strategies considering the couple's social and financial situation.

**Methods:** This was a cross sectional study conducted on 133 volunteered couples undergoing assisted reproductive treatment. Coping strategies and the attitude toward infertility were assessed using a self-report questionnaire. Higher scores of attitude indicated positive attitudes. Data was analyzed using paired-samples t test and multiple regression model.

**Results:** Independent from demographic information and causes of infertility, using self-blame and self-focused rumination coping strategies were negatively related to attitude toward infertility in both men and women ( $p < 0.05$ ). Also, using self-blame coping strategy had a positive correlation with female infertility and negative correlation with male infertility.

**Conclusion:** Regardless of the economic and social conditions, in infertile couples, downward trend in attitude toward infertility is mostly associated with the use of maladaptive coping strategies.

**Keywords:** Assisted reproductive treatments, Attitude, Coping strategies, Infertility.

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### Introduction

Infertility is a major health challenge that has caused 15% of couples around the world (1) and 22% of couples in Iran (2) to face mental, social (3), and financial consequences; therefore, it is considered a general health issue.

The desire to have children is one of the basic human instincts; because in most of the couples fertility is an important matter to complete their male or female character and identification, and their final goal of life. Infertility could be disappointing and devastating for couples who desire to have a child. But in societies like Iran where cul-

tural norms value mothers more than women, the consequences (4, 5) would be intensified and could lead to social and mental problems (6).

Although infertility as a source of stress could threaten the mental health of infertile people (7) but the magnitude of its effects depends on personal coping behaviors (8). Coping is the cognitive and behavioral efforts to control and manage stressful events of life (9) and could moderate the negative effects of the stressful situations most of the times.

Studies have shown that coping strategies toward

infertility is associated with the level of stress (8, 10), psychological development of infertile men (11), depression, and anxiety (12) and interventional programs in order to cope with the crisis of infertility could enhance the quality of life (13). But to manage the agitations and stresses caused by infertility and plan for promoting coping strategies in infertile couples, identifying predictor factors is necessary.

The couples' beliefs and attitude toward infertility, which are based on social and cultural factors and their inner desires, could affect the couple's ability to deal with the infertility crisis. But these valuations and their effect on individual's adaptation ability toward infertility issue would grow in the cultural, social (14) and religious (15) context of each individual that should be investigated. Therefore, the aim of this study was to assess the relationship between the attitude toward infertility and coping strategies in couples undergoing assisted reproductive treatments.

### Methods

This was a cross sectional study conducted on 133 Iranian couples who referred for assisted reproductive treatments in the Fertility and Infertility Center of Isfahan from October 2013 to March 2014. The study was approved by the ethics committee of Isfahan University of Medical Sciences. The exclusion criteria were using donated egg or embryo, having any biological or adopted child, and having any known mental diseases based on their medical recodes.

Samples were selected by simple random sampling. Informed consent was received from all the participants. At the beginning, demographic data including age, level of education, financial situation according to their own opinion, and employment status was gathered. Social status of couples was evaluated based on their employment status and level of education. The cause of infertility was identified by reviewing the couple's file and was categorized as female, male, or unknown.

Data gathering tools were the attitude toward infertility questionnaire and the R-COPE questionnaire. The attitude toward infertility questionnaire was a researcher made questionnaire using Likert scale (1-5) including 10 questions that was developed by reviewing scientific references and its content validity was confirmed by 5 experienced specialists (one psychometric expert and four psychologists). The questionnaire's reliability was confirmed with a reproducibility index of 0.8 by

conducting a pilot study on 15 eligible infertile couples in two stages with a one week interval. Higher scores of attitude indicated positive attitudes.

The R-COPE questionnaire with 19 terms is developed based on literature review and available questionnaires (16). This questionnaire has been set on Likert scale (1-4) from rarely (1) to mostly (4). After the completion of questionnaires by participants, the internal validity of the questionnaire was calculated to be 0.78 by omitting the questions that would reduce Cronbach's  $\alpha$  to less than 0.75. The final questionnaire included 20 questions to evaluate coping methods in 5 domains of active confronting, self-blame, self-focused rumination, avoidance, and goal replacement.

The attitude toward infertility questionnaire and R-COPR questionnaire were filled by each spouse separately.

Data was analyzed using SPSS 16 and paired-samples t test and multiple regression model. Acceptable error rate for tests to be statistically significant was set at 0.05.

### Results

From 134 eligible couples, 133 filled the questionnaires. The comparison of mean of attitude toward infertility and coping strategies is presented in table 1. There was no significant difference between the mean score of attitude toward infertility and coping strategies between couples.

Assessing the relationship between the attitude toward infertility and coping strategies, results showed that in both men and women, independent from demographic information and cause of infertility, use of self-blame and self-focused rumination coping strategies have an inverse and significantly meaningful correlation with the attitude toward infertility (Tables 2 and 3). Also, the use of self-blame strategy had a positive and significant correlation with female infertility and a nega-

**Table 1.** Comparison of coping strategies and infertility attitude between women and men

Variable *	Women (M±SD)	Men (M±SD)
Attitude toward infertility (10 item)	32.9±9.5	33.29±9.5
Active confronting (4 item)	13.81±3.1	15.04±3.3
Self-blame (4 item)	14.24±4.2	15±4.3
Self-focused rumination (4 item)	14.15±3.4	15±3.3
Avoidance (4 item)	11.88±4.5	11.98±4.1
Goal replacement (4 item)	15±4.4	16.29±4

\*No significant differences were seen

**Table 2.** Relationship between coping strategies and attitude toward infertility among women

Variable	Coping strategies in women									
	Active confronting (R <sup>2</sup> =0.23)		Self-blame (R <sup>2</sup> =0.58)		Self-focused rumination (R <sup>2</sup> =0.07)		Avoidance (R <sup>2</sup> =0.04)		Goal replacement (R <sup>2</sup> =0.17)	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
Female infertility	-0.02	NS	0.34	0.03	-0.15	NS	-0.16	NS	0.11	NS
Male infertility	-0.24	NS	-0.31	0.048	-0.08	NS	0.02	NS	0.05	NS
Unexplained	0.29	NS	-0.09	NS	0.02	NS	0.10	NS	0.02	NS
Attitude toward infertility	0.04	NS	-0.49	0.001	-0.43	0.02	-0.11	NS	0.32	NS

**Table 3.** Relationship between coping strategies and attitude toward infertility among men

Variable	Coping strategies in men									
	Active confronting (R <sup>2</sup> =0.21)		Self-blame (R <sup>2</sup> =0.41)		Self-focused rumination (R <sup>2</sup> =0.53)		Avoidance (R <sup>2</sup> =0.10)		Goal replacement (R <sup>2</sup> =0.18)	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
Female infertility	-0.05	NS	0.12	NS	0.26	NS	-0.09	NS	-0.16	NS
Male infertility	-0.05	NS	-0.08	NS	-0.26	NS	-0.07	NS	0.17	NS
Unexplained	0.12	NS	-0.02	NS	0.10	NS	0.03	NS	-0.09	NS
Attitude toward infertility	-0.05	NS	-0.51	0.005	-0.16	0.0001	-0.18	NS	0.05	NS

tive and significant correlation with male infertility. Also, there was no significant relationship between the use of coping strategies and any of the demographic information (Table 2).

The use of coping strategies in men was not related with the cause of infertility but using active confronting strategy in men had a positive and significant correlation with level of education.

### Discussion

This study assessed the method of coping with infertility in couples undergoing assisted reproductive treatments and its relation with their attitude toward infertility, independent from social and financial factors. Descriptive data of the study showed that couples undergoing assisted reproductive treatments use avoidance strategy less than other strategies in facing infertility. Also, comparing the use of strategies between men and women, results showed that infertile couples used similar strategies. Unlike the results of the present study, Peterson et al. reported that before couples started assisted reproductive treatments, men used planful problem solving strategy whereas women mostly sought social support and used confronting coping and avoidance strategies (17).

This difference could be due to the cultural context of Iranian society. Most of the Iranian infertile couples would rather undergo treatment without informing others about their plan. Especially since in Iran like many other regional countries

fertility is usually attributed to women (18, 19), revealing the need for assisted reproductive treatments would increase anxiety mostly in women and would cause women to be reluctant about sharing their feelings and to seek for social support. Also starting assisted reproductive treatment means that the couple has reached a mutual decision; therefore, it is expected that they do not use avoidance strategy.

Anxiety after starting assisted reproductive treatment (20) could negate men's efforts in finding an appropriate solution to resolve conflicts caused by the situation and would appear as self-focused rumination. Also, lack of information and skills about assisted reproductive treatments (21) could lead to obsessions. Although women have also used the opportunities in their life for changing their goals to moderate the stress caused by infertility, having more opportunities to enter into different social and financial fields has made it easier for men to replace their goals. It could also be possible that gender roles for women were more important than social roles because they tend to have children more than men (22).

Results showed that using some of the coping strategies in infertile couples is related to their attitude toward infertility. Based on the results, negative attitude toward infertility in both men and women is associated with more self-blame and self-focused rumination. Furthermore, results showed that female infertility, independent from

the attitude toward infertility, has an adverse effect on coping strategies in women; it was observed that women with female infertility used self-blame strategy more than others whereas men with male infertility used this maladaptive method less. To confirm this matter, a study reported that the spouses who were recognized with infertility used maladaptive methods more than others (17).

Another study in Iran showed that women who have female infertility experience more depression and anxiety during assisted reproductive treatments than other women (23) which could lead to negative coping methods such as self-blame. While coping strategies in women were related to the cause of infertility in men, mostly they were related with their attitude toward infertility but not its cause. Lack of relation between the attitude toward infertility and the cause of infertility in men could mean that men's coping methods and attitude toward infertility are mostly affected by factors other than those related to infertility. Studies have also shown that when facing infertility, men tend to pay less attention to infertility issues and use distancing strategy (17).

These results show that coping strategies of Iranian women are more influenced by interpersonal factors such as the attitude toward infertility rather than financial and social status. The effect of social aspects of infertility and the need to become a parent have been reported before (22).

What makes the cause of infertility an important factor for leading women toward maladaptive strategies such as self-blame could be the cultural context. In societies like Iran where fertility is an important index to evaluate the individuals in terms of their gender roles, infertile women are under more social pressures (24).

In a study conducted in Pakistan, it has been reported that one third of infertile women blame themselves for not being able to make their husbands happy. Based on the results conducted in Pakistan, 57% of women believed that women's infertility is a compelling reason for men to marry again (25). Generally, individual's attitude toward infertility is related to the society's attitude toward gender roles and the importance of fertility and it would grow in the society's cultural context.

However, this study was done among infertile couples who decided to use assisted reproductive treatment and stress of treatment could affect their attitude toward infertility. Therefore, these findings are not generalizable to all infertile couples.

## Conclusion

The present study showed that negative attitude toward infertility is associated with more use of maladaptive coping strategies and the attitude toward infertility in women is affected by the cause of infertility. Therefore, besides learning necessary skills for using appropriate strategies to moderate infertility crisis, it is necessary to focus on the strengthening programs for coping with infertility, especially in women in social contexts which shape the attitude of people toward the aim of life and infertility.

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## Conflict of Interest

There is no conflict of interest to declare.

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