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The Comparison of Coping Strategies With Stress and Marital Satisfaction in Women on the Basis of Infertility Factor

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Background: Nowadays infertility issue has become a social concern and is associated with numerous social and psychological problems. Infertility can influence interpersonal, marital and social relationships.
Objectives: The aim of this study was to determine the type of coping strategies regarding stress and the level of marital satisfaction in infertile women associated with their infertility factors and to obtain the relationship between these two variables.
Materials and Methods: The sample group included 50 women with female infertility factor and 50 women with male infertility factor. The participants contacted upon their treatment course with Assisted Reproductive Technology (ART) in Mehr infertility clinic, Tehran, Iran. Enrich marital satisfaction questionnaire and standard scale for measuring coping strategies were used during this study.
Results: Data analysis showed that coping strategies and marital satisfaction were different in the two groups of participants based on their infertility factors. The women with female infertility factor used more "emotion- focused" and "less useful coping strategies" than the women with male infertility factor ($P < 0.001$). The women with male infertility factor had significantly more marital satisfaction than their infertile counterparts ($P = 0.019$).
Conclusions: The results provided useful evidence about the types of coping strategies in infertile women. Also considering infertility factor, a significant relationship was found between the type of coping strategies and marital satisfaction in infertile couples.

Keywords: Adaptation, Psychological; Stress; Infertility; Personal Satisfaction

1. Background

According to the International Committee for Monitoring Assisted Reproductive Technology (ART) and the World Health Organization, infertility is a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (1). Female fertility declines with age, which means that with each year there is a possibility of decreased conception. Infertility affects 6 million American women and their partners. Infertility is observed in about 40 percent of men and 40 percent of women. Also 20 percent of infertility cases result from complications involving both partners (2). Infertility has mental, social, and reproductive consequences. Recent improvements in medication, microsurgery, and ART make pregnancy possible for more than half of the couples pursuing treatment, yet infertility is more than a medical condition. This condition touches on all aspects of a person's life. It affects how individuals feel about themselves and their relationships, and their perspective of life. Stress is only one of the countless emotional realities couples with prolonged infertility problem face. In addition to ongoing stress, infertility creates guilt, anxiety, tension in marital status, and feelings of depression and isolation (3). The consensus is forming around the fact that the infertility brings about a significant crisis in the lives of the people involved (4). Realization of incapacity to have a child through the natural process, must undoubtedly lead to surprise and some degree of frustration (5). Many authors reported that many infertile individuals suffer a chronic existential crisis (6). This crisis is derived from strong values associated with procreation, one of the aspirations still considered as basic for the majority of human beings (7-9). Peterson et al. investigated the anxiety and sexual stress in married couples undergoing infertility treatment and indicated that women suffer greater anxiety and stress which is associated with sexual infertility than men (10). However, men and women showed a similar pattern of anxiety symptoms related to sexual infertility stress. Also Sexton et al. reported women with fertility problems showed significantly lower resilience scores than published norms (11).

Coping strategies refer to the specific efforts, both behavioral and psychological, that people make to master, tolerate, reduce, or minimize stressful events. Two general coping strategies have been distinguished including problem-focused coping strategies which are efforts to do something active to alleviate stressful circumstances, and emotion-focused coping strategies involving attempts to regulate the emotional consequences of stressful or potentially stressful events. Studies indicate that people use both types of strategies to combat most stressful events (12). There are coping responses that are arguably less useful and less effective (13).

2. Objectives

Considering the existing relationship between coping strategies with stress and marital satisfaction, this study aimed to investigate the adaptive coping responses to deal with the infertility crisis and therefore reduce the distress of infertile couples and improve marital satisfaction.

3. Materials and Methods

Target group comprised women contacted during the course of treatment with ART in Mehr infertility clinic (Tehran, Iran) from December 2010 to 2011. The participants were divided into two groups on the basis of their infertility factors. The study group comprised 50 women with female infertility factor and 50 women with male infertility factor. Upon initial contact, the goals of the research were explained to the women who agreed to participate in this study. The protocol for the research project conformed to the provisions of the Helsinki, and considered patients' anonymity in relation to the result of this clinical study, where enrich marital satisfaction questionnaire and standard scale for measuring the style of coping with stress were employed. The Enrich questionnaire included 47 questions and measured marital satisfaction. All 9 sections of this questionnaire referred to an important issue in couple's relationship. These 9 aspects include: 1. Personality characteristics, 2. Marital relationship, 3. Conflict solving, 4. Money management, 5. Leisure, 6. Sexual relationship, 7. Marriage and children, 8. Family and friends, 9. Orientation. The answers are in the range of five grade scale that includes: 1)"completely agree", 2)"agree", 3)"neither agree, nor disagree", 4)"disagree", and 5)"completely disagree". The total score obtained from each questionnaire was converted to standard scores for interpretation. Standard scores are interpretable based on the norm version of Enrich questionnaire. Scores below 30 show extreme dissatisfaction among spouse, and scores higher than 70 referred to complete marital satisfaction (14).

Standard scale for measuring coping with stress is a multi-dimensional instrument which is based on Lazarus stress management model (13). This standard scale includes 72 questions investigating the following 4 general coping styles:

1. Assessing the problem-focused coping styles including: active coping, planning, and suppression of competing activities, restraint coping, and seeking instrumental social support.

2. Assessing the emotion-focused coping styles including seeking emotional and social support, positive reinterpretation, acceptance, denial and turning to religion.

3. Assessing the less useful coping responses including focusing on and venting emotions, behavioral disengagement, and mental disengagement.

4. Assessing the less effective coping responses comprising indulgence in drugs or alcohol, and impulsive, superstitious, negative and ambitious thought copings.

The participants were divided into different groups according to their age, education, career, monthly income and the time length of awareness about their fertility problem. Statistical Package for Social Sciences (SPSS Version 18, SPSS Inc. Chicago, IL, USA) was used for data analysis and P values < 0.05 were considered significant. Also Chi-square and t-test were used for comparing demographic data between the two groups. Also t-test was used to compare marital satisfaction between the two groups and their coping styles.

4. Results

The mean age of women with female and male infertility factors were 29.4 ± 6.8, and 29.1 ± 5.3 (ranging from 22-45 years), respectively. The mean time lengths of awareness period of the infertility problem for the respective groups were 4.3 ± 4.2 SD (Standard Deviation) and 4.68 ± 4.03 SD years. Detailed demographic information is given in Table 1.

There were significant differences in using coping strategies between the two groups. In the group of women with female infertility factor, Emotion focused coping and coping strategies are less efficient than those with male infertility factor. Therefore, more intensive emotion focused and coping strategies should be employed in women with female infertility factor. The comparison of average scores of coping strategies in two groups of infertile women showed meaningful differences between two groups regarding application of problem- focused coping strategies (Table 2). Women with male infertility factor exercised more problem-focused coping strategies than those with female infertility factor. According to Figure 1, active coping was the most frequently used problem-focused coping strategy among women with male infertility factor. Indeed, the comparison of emotion-focused coping strategies showed that there was no significant difference between the two groups regarding application of emotion-focused coping strategies for seeking emotional and social support, positive reinterpretation, acceptance, denial, and turning to religion. Also comparison between the two groups in using less useful coping strategies clarified that women with female infertility

factor favor more behavioral disengagement, emotional or instrumental support, indulgence in drugs or alcohol, impulsive attitude, superstitious and negative thought copings (P < 0.001).

Table 1. Comparison of Demographic Data of the Participants Based on Their Infertility Factors [a]

	Infertility Factor, Female (n = 50)	Infertility Factor, male (n = 50)	P Value [b]
Age, y	29.46 ± 6.825	29.1 ± 5.335	0.769 [c]
Length of awareness period of the problem, y	4.3 ± 4.296	4.68 ± 4.038	0.65 [c]
Monthly income, IRR	5430000 ± 4090000	4910000 ± 3090000	0.476 [c]
Education			0.197 [d]
Elementary	18 (26)	11 (22)	
Secondary and high school	17 (34)	25 (50)	
Graduated and more	15 (30)	14 (29)	
Employment Status			0.942 [d]
Employed	12 (24)	8 (16)	
Unemployed	38 (76)	42 (84)	

[a] Data are presented as Mean ± SD or No. (%).
[b] P value less than 0.05 was considered significant.
[c] T test was used.
[d] Chi-square was used.

Table 2. Comparison of Marital Satisfaction Scores in Study Groups Based on the Applied Coping Strategy [a]

	Infertility Factor, Female (n= 50)	Infertility Factor, male (n = 50)	P Value [b]
Problem focused coping strategies	52.28 ± 11.805	61.62 ± 9.017	0.000
Emotional focused coping strategies	53.34 ± 7.179	49.7 ± 6.39	0.008
Coping strategies which are less useful	60.4 ± 15.96	49.82 ± 12.963	0.000

[a] Data are presented as Mean ± SD.
[b] T test was used. P value less than 0.05 was considered significant.

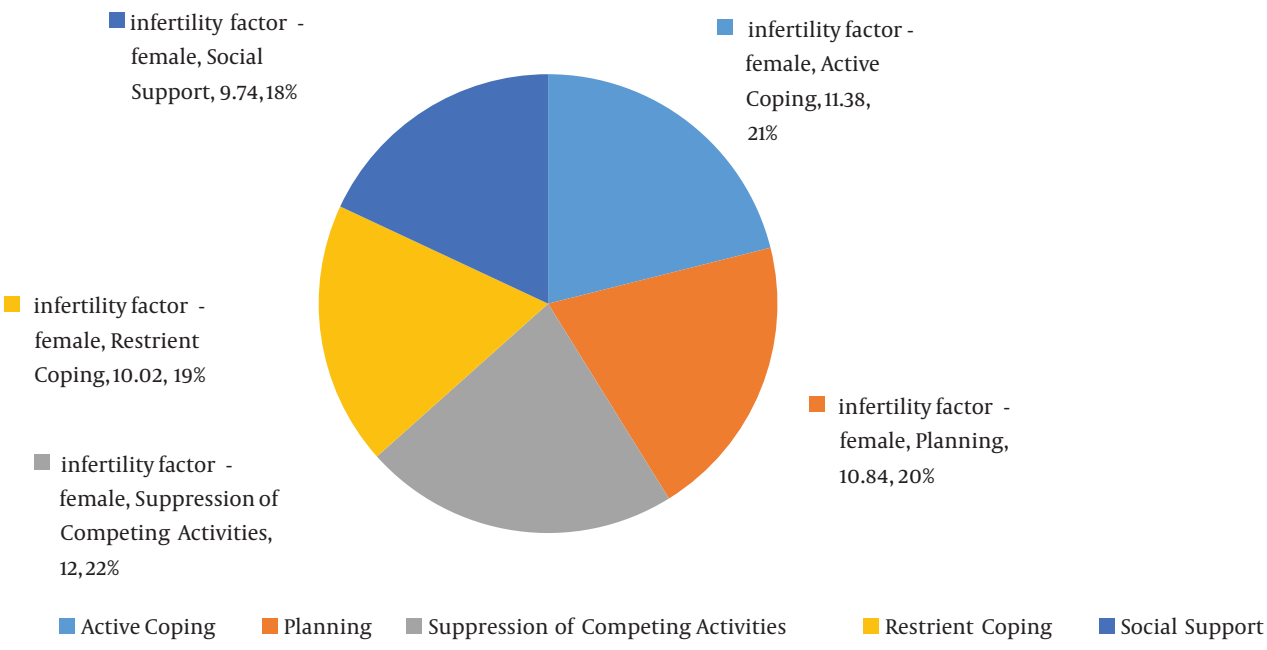

Figure 1. Comparison of the Type of Problem Focused Coping Strategies in Two Groups

This study also reveals differences between the levels of marital satisfaction among infertile women based on their infertility factor. Scores from Enrich marital satisfaction questionnaire varied from 82 to 208 between participants. We found that mean score of marital satisfaction was significantly (P = 0.019) higher in women with male infertility factor compared to women who were infertile themselves. Marital satisfaction scores in 34% of women with female infertility factor varied from 131 to 152, and were between 175 and 196 in 36% of women with male infertility factor. The marital satisfaction in women with female infertility factor is less than infertile women with male infertility factor (P = 0.019).

5. Discussion

The present study showed that women with male infertility factor use more problem- focused coping style and those with female infertility factor apply more emotion-focused and less efficient coping styles. The results of this study are in agreement with those of Taylor (2002) statement regarding the fact that infertile men or women blame themselves and have more stress and less self-confidence (15). Researches have shown that women in stressful situation express more emotions (16), and are more likely to use emotion- focused coping strategies, if they bear the brunt of infertility.

This study also showed that women with female infertility factor have less marital satisfaction. This result is in agreement with Lee (17) which reported that women with female infertility factor undergo more treatment and thus experience more stress and depression and have less marital satisfaction than their husbands.

According to this research, there is a relationship between the time length of awareness of the infertility problem and marital satisfaction in infertile couples. There is an inverse relationship between the length of infertility treatment and the marital satisfaction. Also infertile women show more emotion-focused and less useful coping responses in long term treatment. There is also a relationship between education and marital satisfaction in infertile couples and the style of coping with stress. The more educated couples are, the more marital satisfaction they have and the less they use emotion-focused coping strategies. Owing to the sample group which was from infertile women, the present results should be considered as preliminary and interpreted accordingly. Therefore, it is suggested to carry out further investigations involving both infertile male and female couples. It is possible that variables like predictability of the situation and self-steam are effective on coping with stress in individuals. We suggest that in future studies these variables also be taken into account.

According to the results of similar researches, cultural factors in Asian society and the social importance of having children in families, infertility is a major cause of stress in married couples. Thus, in order to avoid further complications in families and promote the life quality of infertile couples, apart from prescribed medical therapy for infertile couples, consulting a psychiatrist and a psychologist could eliminate marital conflicts and help the couples better understand each other and express their feelings and emotions.

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Authors' Contributions

Fatemeh Jafarzadeh developed the original idea of this study. Mahmood Golzari was the supervisor for the study. Farhad Jomehri contributed in study concept and design. Seyedeh Leyla Poursamar contributed to drafting the manuscript and data analysis. Kimia Sahraian contributed to drafting the manuscript.

References

1. Zegers-Hochschild F, Adamson GD, de Mouzon J, Ishihara O, Mansour R, Nygren K, et al. International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO) revised glossary of ART terminology, 2009. *Fertil Steril.* 2009;**92**(5):1520–4.
2. Hudson B. *The infertile couple.*Edinburgh: Churchill-Livingstone; 1987.
3. Hart VA. Infertility and the role of psychotherapy. *Issues Ment Health Nurs.* 2002;**23**(1):31–41.
4. van Balen F, Trimbos-Kemper TC. Long-term infertile couples: a study of their well-being. *J Psychosom Obstet Gynaecol.* 1993;**14 Suppl**:53–60.
5. Uribelarrea ML. [The psychological impact of infertility]. *Papeles del Psiclogo.* 2008;**29**(2):158–66.
6. Menning BE. The emotional needs of infertile couples. *Fertil Steril.* 1980;**34**(4):313–9.
7. Birenbaum-Carmeli D, Carmeli YS, Casper RF. Discrimination against men in infertility treatment. *J Reprod Med.* 1995;**40**(8):590–4.
8. Deveraux LL, Hammerman AJ. *Infertility and Identity: New strategies for treatment.*San Francisco: Jossey-Bass Publishers; 1998.
9. Williams ME. Toward Greater Understanding of the Psychological Effects of Infertility on Women. *Psychother Priv Pract.* 1997;**16**(3):7–26.
10. Peterson BD, Newton CR, Feingold T. Anxiety and sexual stress in men and women undergoing infertility treatment. *Fertil Steril.* 2007;**88**(4):911–4.
11. Sexton MB, Byrd MR, von Kluge S. Measuring resilience in women experiencing infertility using the CD-RISC: examining infertility-related stress, general distress, and coping styles. *J Psychiatr Res.* 2010;**44**(4):236–41.
12. Folkman S, Lazarus RS. An Analysis of Coping in a Middle-Aged Community Sample. *J Health Soc Behav.* 1980;**21**(3):219.
13. Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. *J Pers Soc Psychol.* 1989;**56**(2):267–83.
14. Fowers BJ, Olson DH. ENRICH Marital Satisfaction Scale: A brief research and clinical tool. *J Family Psycho.* 1993;**7**(2):176–85.
15. Taylor EM. The stress of infertility. *Hum Ecol.* 2002;**95**(1):12.
16. Chaplin TM, Hong K, Bergquist K, Sinha R. Gender differences in response to emotional stress: an assessment across subjective, behavioral, and physiological domains and relations to alcohol craving. *Alcohol Clin Exp Res.* 2008;**32**(7):1242–50.
17. Lee TY, Sun GH, Chao SC. The effect of an infertility diagnosis on the distress, marital and sexual satisfaction between husbands and wives in Taiwan. *Hum Reprod.* 2001;**16**(8):1762–7.