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The effectiveness of reality therapy on sexual satisfaction and marital intimacy of infertile women

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Abstract:

BACKGROUND: Infertility is one of the most important challenges in the modern life that can damage the sexual satisfaction and marital intimacy of couples. The present study was aimed to investigate the effectiveness of reality therapy on sexual satisfaction and marital intimacy of infertile women.

MATERIALS AND METHODS: This quasi-experimental study was conducted with a pretest-posttest design and follow-up. The statistical population was infertile women who were referred to Imam Sajjad Shahriyar Hospital in 2019–2020. 15 infertile women selected by purposive sampling and underwent reality therapy (8 sessions of 90 min). Data were collected using index sexual satisfaction (ISS) and marital intimacy questionnaire. Data analysis was performed using SPSS-24 software, analysis of variance with repeated measures and *post hoc* Bonferroni test.

RESULTS: The results of analysis of variance showed that there was a significant difference between the scores of sexual satisfaction and marital intimacy in posttest and follow-up stages compared to pretest ($P < 0.05$).

CONCLUSIONS: Based on the results, reality therapy can be used as an effective intervention to improve sexual satisfaction and marital intimacy of infertile women.

Keywords:

Infertile, marital intimacy, reality therapy, sexual satisfaction

Introduction

Infertility is one of life's most bitter experiences characterized by an inability to conceive.^[1] This inability to conceive is described after 1 year of regular intercourse or artificial insemination (*in vitro* fertilization) without the use of contraception^[2] or the inability to have a successful pregnancy diagnosed by a specialist.^[3] Infertile women choose different treatments to solve their problem; one of the assisted reproductive techniques is *in vitro* fertilization which is a set of medical methods used to treat infertility^[4,5] In most cases, reproductive methods fail which cause many psychological and marital problems for these women.^[6]

In this regard, one of the problems that infertile women experience in married life is low levels of sexual satisfaction.^[7] Sexual satisfaction of life is an important dimension of marital quality of life that includes the individual's assessment of the positive and negative aspects of sexual relations with his spouse and the individual's response to these assessments and evaluations.^[8] Optimal sexual relations are one of the basic functions of life and an important part of women's health and well-being and affect their quality of life.^[9] Sexual dissatisfaction is associated with increased stress and division in the family and decreases self-esteem.^[10] In contrast, sexual satisfaction is not limited to physical pleasure, but one must have some kind of psychological and emotional satisfaction. Although activity and sexual satisfaction do not meet all the criteria for

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the desired quality of married life, it can be one of the main foundations of family health and survival.^[11]

Infertility and related treatments have negative effects on health status by causing psychological and physical stress, which is why infertile women experience low satisfaction in their sexual life.^[12] According to the results of the study, infertility has been described as a lack causing a serious stress in life and severe psychological trauma to couples that can reduce marital intimacy between them.^[13] Marital intimacy is an interaction that focuses on knowing, understanding, accepting, empathizing with the other person's feelings, and appreciation, which is the result of exposing issues and sharing intimate experiences.^[14] According to previous studies, marital intimacy in fertile women is significantly higher than women who are still infertile for any reason, and also, in normal couples, perceived marital intimacy is higher than infertile couples, and the longer their marriage and married life, due to infertility, the lower their marital intimacy.^[15] Therefore, infertility and its course of medical treatment have devastating effects on mental and physical health, especially sexual life and intimacy of infertile women. Supportive and psychological interventions can improve the health of infertile women and improve their psychological and marital problems.^[16] One of the important interventions that has a role in improving women's sexual satisfaction and marital intimacy is reality therapy based on Glasser's theory of choice.^[17]

The basis of choice theory is our qualitative world, that is, the small world that a person begins to create in his mind shortly after birth and continues to create and expand throughout life. Now, this small world is in our minds and contains special images such as people, objects, and situations and is considered the best guide to discover how to meet our needs. A qualitative world is made up of perceptions of people, situations, and positive things, and these perceptions are necessary for human beings in relation to supply. According to Glasser, we choose our behavior and are fully responsible for our emotional, behavioral, and even physical problems, and in general, in terms of choice theory, all human behavior is an attempt to satisfy our needs. These behaviors are not controlled from the outside but are completely motivated from within and under the control of the individual.^[18]

Reality therapy is a method of counseling and psychotherapy that helps people explore expectations, values, and ways to help them meet those needs. In fact, the purpose of this treatment is to change the failed identity and create a responsible behavior in the clients, because according to this approach, what causes problems in people's lives is their irresponsibility.^[19] The relationship between therapist and client reality

therapy emphasizes the empathic and supportive relationship, or therapeutic alliance, which is the basis of effective outcomes.^[20] The therapist's skill is important in establishing a trusting relationship. It is also important that the client perceives the therapist as skilled and knowledgeable. Although a therapeutic relationship is very important, it is not automatically healing.^[21] Overall, it can be said that the main purpose of reality therapy is to educate people to be aware of their basic psychological needs such as belonging, power, love, survival, and freedom and to avoid using external control.^[22]

In other words, reality therapy based on Glasser's choice theory, focusing on the present and examining cultural differences, helps a person to take responsibility and the right and wrong things in life to solve problems.^[23] According to the research background which shows that in marital relationships, weakness in sexual satisfaction and intimacy causes problems in many marriages and also with the emergence of disorders in the relationship between husband and wife reduces intimacy and over time reduces sexual satisfaction between them. Becomes. Financial pressures for infertility treatment are also among the factors that reduce intimacy can be mentioned.^[22] In the infertility treatment process, it causes fatigue from continuing treatment, frustration in the treatment process, and consequently unwillingness to continue the treatment process, and ultimately the ineffectiveness of other treatment stages that have been completed.^[13] It is necessary to prevent, provide solutions and appropriate intervention in this matter. Therefore, the need for treatment methods and the provision of counseling services in this area is very important and can significantly affect the development of knowledge and insight of individuals. According to the few studies that have been done on intimacy and sexual satisfaction, the need for this research in these women is essential. In this regard, the effectiveness of the reality therapy approach is effective in increasing the problem-solving ability in individuals, and this approach teaches that instead of running away, destroying another and blaming the other person, one should accept responsibility for the problem and take action to solve it.^[24] Therefore, in this study, the question has been investigated whether reality therapy is effective on sexual satisfaction and marital intimacy in infertile women?

Materials and Methods

Study participants and sampling

It was a quasi-experimental pretest posttest design with follow-up. The statistical population included infertile women who referred to Imam Sajjad Shahriyar Hospital in 2019–2020. Fifteen women referring to the hospital who volunteered to receive medical services were purposefully selected and participated in the reality

therapy group for 8 sessions of 90 min.

Inclusion criteria were passing at least 1 year of a female infertility diagnosis by a specialist, age between 20 and 40 years, being married, having a minimum of diploma degree, not receiving other psychological therapies at the time of implementation, and not making an immediate decision to divorce. Exclusion criteria also included contracting other diseases, not completing the questionnaire, missing more than two sessions in reality therapy sessions, leaving the subjects during the sessions, and becoming pregnant during the project.

Data collection tool and technique

To select the sample, the researcher referred to Imam Sajjad Shahriar Hospital and interviewed volunteers to participate in the treatment. In the continuation of the study objectives, the optionality of the research, the harmlessness of the treatment intervention, and the procedure were explained to the participants and written informed consent was obtained from them. Subjects completed a Sexual Satisfaction Questionnaire (index sexual satisfaction [ISS]) and marital intimacy questionnaire (MIQ) to assess the effectiveness of treatment, followed by sessions on training on identifying the five basic needs, the desired world and desires, teaching general behavior and creativity, couple conflict resolution, destructive behaviors, and methods of intimacy. In the last session, the contents were summarized and the questionnaires were given to the individuals after the test. After 40 days, the questionnaires were filled out by individuals to follow up.

Sexual satisfaction questionnaire

This questionnaire was prepared by Hudson *et al.* consisting of 25 items. The answer to each question was provided by a 7-point Likert scale ranged from never 0 to always score 6; In total, the score of the questionnaire varied between 0 and 150.^[25] So that the high score in this questionnaire reflects sexual satisfaction. In the study of Jocz *et al.*, the reliability of ISS with Cronbach's alpha coefficients was 0.92 for men and 0.93 for women.^[23] The Persian version of ISS was examined by Talayizadeh and Bakhtiyarpour and its reliability was evaluated by internal consistency method with Cronbach's alpha coefficients of 0.93.^[26] In the present study, Cronbach's alpha of the questionnaire was obtained in the range between 0.71.

Marital intimacy questionnaire

This questionnaire was developed by Vanden Broucke and Hanss Bertommen in 1995 and has 56 items, including 5 subscales including intimacy, agreement, honesty, love and commitment.^[27] The scoring of the MIQ in the 5-point Likert scale was from very low 0 to

very high 4. Constant *et al.*, examined the reliability of the questionnaire using Cronbach's alpha, with coefficients ranging from 0.72 to 0.86.^[28] Moreover, in the research of Wubbolding and Wubbolding, the reliability of MIQ was confirmed with Cronbach's alpha and coefficient of 0.76.^[29] In the present study, Cronbach's alpha of the 0.87 questionnaire was obtained. A summary of reality therapy sessions based on Glasser's choice theory is given in Table 1.

Ethical consideration

For this research, first, the necessary license was obtained from the Islamic Azad University, Medical Sciences Branch of Tehran. All procedures performed in studies involving human participants were performed in accordance with the ethical committee of the university. Ethical considerations included: The principle of respect for human dignity and freedom, respect for the principle of confidentiality, providing sufficient information on how to research all participating subjects, obtaining written consent to participate in treatment, following up treatment if necessary even after the end of research, providing the necessary information about the nature of the research and reassurance about the confidentiality of the results, possibility of canceling the subjects if they do not want to cooperate in any stage of the research, in case of the need to use drug therapy during the

Table 1: Reality therapy sessions based on Glasser's choice theory

Session	Content
1	Introduction and group rules/pre-test, establishing emotional communication with members and introducing members and therapist, determining continuity (total number of sessions 8 sessions), frequency (one session per week), length of sessions (90 min/week), identification of the most important demands and goals of the members of the group. The principle of confidentiality must be observed so that it is a safe and reliable environment for all members. The people were told to be punctual and attend meetings on time
2	Identifying the current problem of the members and focusing on the current behavior of the individual, teaching the five basic needs in the theory of choice
3	Explaining about the desired world and comparing it with the real world and the behaviors that are created to satisfy the desires of the desired world and the difference between wants and needs
4	Teaching general behavior and creating creativity
5	Familiarity of couples with how to create conflict in married life and training in problem-solving ring technique
6	Familiarity with the concept of external control and its destructive role in intimate relationships, seven destructive habits, and seven love habits
7	Using new methods to increase sexual intimacy and the effect of using creativity in cohabitation
8	Familiarizing members with how to meet basic needs in married life, examining how to meet the needs of group members through 4 main questions of reality therapy, summarizing and closing sessions

implementation of reality therapy, the patient is referred to the relevant specialist and the patient to leave the research, and the principle of paying attention to the system of community values was considered.

The collected data were analyzed using SPSS software version 24 and descriptive statistics (mean and standard deviation) and inferential statistics of repeated measures analysis of variance and Bonferroni *post hoc* test were used.

Results

Mean and standard deviation of sexual satisfaction and marital intimacy variables by pretest, posttest, and follow-up are reported in Table 2. To investigate the normality of the distribution of the studied variables, two common indicators including skewness and elongation were used. The amount of skewness and elongation of the research variables is in the range 2–2, which indicates the distribution of variables has normal skewness and elongation. Therefore, the assumption of normal distribution of scores in all research variables was confirmed.

As shown in Table 3, Mauchly sphericity test of the significance level for the research variables is 0.001. Therefore, the sphericity assumption was rejected. As a result, the assumption that the variances were the same and, more precisely, the homogeneity condition

Table 2: Mean and standard deviation of sexual satisfaction and marital intimacy in women

Variable	Test	Experimental group	
		Mean	SD
Sexual satisfaction	Pretest	69.29	15.568
	Posttest	106.50	14.685
	Follow up	106.21	14.343
Intimacy	Pretest	26.86	3.060
	Posttest	32.93	4.196
	Follow up	32.79	4.098
Agreement	Pretest	18.36	3.028
	Posttest	23.79	3.378
	Follow up	23.64	3.365
Honesty	Pretest	19.21	2.860
	Posttest	24.71	2.301
	Follow-up	24.36	2.437
Love and care	Pretest	11.86	2.033
	Posttest	14.43	2.277
	Follow-up	13.93	2.526
Loyalty	Pretest	16.50	3.276
	Posttest	21.93	3.647
	Follow-up	21.86	3.570
Marital intimacy total score	Pretest	92.79	6.471
	Posttest	117.79	9.633
	Follow-up	116.57	9.804

SD: Standard deviation

of the covariance matrix was not confirmed, and therefore the statistical model F was violated. As a result of alternative tests, therefore, the conservative Greenhouse–Geisser test was used to examine the within-test effects of treatment.

The results of the analysis of variance for repeated measurements of sexual satisfaction in three stages (pretest, posttest and follow-up) are presented in Table 4. Based on the results, analysis of variance of the variables of sexual satisfaction and marital intimacy is significant for the within-group factor ($P < 0.001$). It shows that there was a significant difference between sexual satisfaction scores during the research stages (pretest, posttest and follow-up).

Bonferroni *post hoc* test was used to evaluate the difference between sexual satisfaction and marital intimacy scores in the pretest, posttest and follow-up stages, the results of which are shown in Table 5. Results from Bonferroni *post hoc* test showed that the mean of research variables in posttest and follow-up was different from pretest; so that the score of research variables in the posttest was higher than the pretest and the follow-up score was higher than the pretest. This within-group difference in the pretest, posttest, and follow-up stages was significant; so that the posttest and follow-up scores were significantly different compared to the pretest. Therefore, the research hypothesis that reality therapy had an effect on sexual satisfaction and marital intimacy in infertile women was confirmed.

Discussion

Behavioral and communication problems are one of the main factors affecting the growing trend of divorce in the country. Recognizing and seeking effective solutions to increase intimacy and sexual satisfaction in couples' conflicts are among the reasons for emphasizing the importance and necessity of the present study. This study aimed at evaluating the effectiveness of reality therapy on sexual satisfaction and marital intimacy in infertile women. The results showed that reality therapy had a significant effect on the sexual satisfaction

Table 3: Results of the Mauchly's sphericity test of sexual satisfaction

Variable	Mauchly sphericity	χ^2	df	P
Total score of sexual satisfaction	0.012	52.898	2	0.001
Intimacy	0.102	27.388	2	0.001
Agreement	0.051	35.766	2	0.001
Honesty	0.079	30.422	2	0.001
Care and love	0.871	12.633	2	0.035
Commitment	0.030	42.272	2	0.001
Total score of sexual satisfaction	0.060	33.772	2	0.001

Table 4: Frequent measurement analysis to examine the effect of time on sexual satisfaction and marital intimacy

Variable	Variance		F	P	Etha squared	Power test
Total score of sexual satisfaction	Greenhouse–Geisser	Within group	148.196	0.001	0.721	0.999
	Between group		642.690	0.001	0.781	0.999
Intimacy	Greenhouse–Geisser	Within group	91.310	0.001	0.875	0.999
	Between group		997.579	0.001	0.887	0.999
Agreement	Greenhouse–Geisser	Within group	52.788	0.001	0.802	0.999
	Between group		752.757	0.001	0.883	0.999
Honesty	Greenhouse–Geisser	Within group	43.377	0.001	0.769	0.999
	Between group		163.623	0.001	0.892	0.999
Love and care	Greenhouse–Geisser	Within group	37.690	0.001	0.744	0.999
	Between group		527.133	0.001	0.776	0.999
Loyalty	Greenhouse–Geisser	Within group	57.054	0.001	0.814	0.999
	Between group		529.648	0.001	0.776	0.999
Total score of marital intimacy	Greenhouse–Geisser	Within group	223.073	0.001	0.745	0.999
	Between group		426.355	0.001	0.541	0.999

Table 5: Results of Bonferroni sexual satisfaction and marital intimacy post hoc test

Variable	Test	Adjusted mean	Stages difference	Mean difference	P
Sexual satisfaction	Pretest	69.29	Pretest-posttest	-37.214*	0.001
	Posttest	106.50	Pretest-follow up	-36.929*	0.001
	Follow-up	106.21	Posttest-Follow up	0.286	0.494
Intimacy	Pretest	26.86	Pretest-posttest	-6.071*	0.001
	Posttest	32.93	Pretest-follow-up	-5.93*	0.001
	Follow up	32.79	Posttest-Follow-up	0.143	0.999
Agreement	Pretest	18.36	Pretest-posttest	-5.429*	0.001
	Posttest	23.79	Pretest-follow-up	-5.286*	0.001
	Follow-up	23.64	Posttest-Follow-up	0.143	0.494
Honesty	Pretest	19.21	Pretest-posttest	-5.500*	0.001
	Posttest	24.71	Pretest-follow-up	-5.143*	0.001
	Follow up	24.36	Posttest-Follow-up	0.357	0.056
Love and care	Pretest	11.86	Pretest-posttest	-2.571*	0.001
	Posttest	14.43	Pretest-follow-up	-2.071*	0.001
	Follow-up	13.93	Posttest-Follow-up	0.500	0.204
Loyalty	Pretest	16.50	Pretest-posttest	-5.429*	0.001
	Posttest	21.93	Pretest-follow-up	-5.357*	0.001
	Follow-up	21.86	Posttest-Follow-up	0.071	0.999
Marital intimacy total score	Pretest	92.79	Pretest-posttest	-25.00*	0.001
	Posttest	117.79	Pretest-follow-up	-23.786*	0.001
	Follow-up	116.57	Posttest-Follow-up	1.214	0.054

*The level of 0.05 is significant

and marital intimacy in both posttest and follow-up stages. This finding was consistent with the results of studies by Khalili *et al.*, Mirzania *et al.*, as well as Abbasi *et al.*^[30-32] They concluded that the reality therapy could significantly improve sexual satisfaction and marital intimacy in infertile women and the results were lasting in the follow-up period. Mirzania *et al.*,^[31] reported that fact-finding therapy based on choice theory can significantly increase marital satisfaction and sexual self-esteem and reduce the marital conflicts of women seeking divorce. Moreover, the results of Soltanzadeh Mazraji and Toozandehjani study on infertile women showed that reality therapy reduces women’s anxiety and recommended reality therapy intervention to

reduce marital conflicts and improve their quality of life.^[33] Since focusing on the aspect of responsibility and responsible behavior is the core of reality-therapy, so reality-therapy can be effective in learning responsible behaviors and thus prevent anxiety in the individual.^[34]

According to previous studies, most couples have high satisfaction in early marriage, but in addition to a gradual decrease in marital satisfaction over time, in the 1st weeks and months of marriage, there are serious problems that can threaten marital satisfaction and stability if left unresolved.^[18,23] For explaining the effectiveness of reality therapy on sexual satisfaction in infertile women, it can be said that Glasser believes that for very clear reasons,

everything we do is our choice, which includes our sense of misery. Others can neither make us miserable nor happy. We have more control over our lives than we think.^[29] In choice-based therapy, choosing to build the right relationships with people and accepting a sense of responsibility based on the decisions people make can reduce external controls and increase internal control and take responsibility for their actions. It depends on the parties to know the most basic principle in recognizing the needs and wants in the independent and adult choice of conflict resolution.^[22]

Explaining the effectiveness of reality therapy on marital intimacy, it can be said that infertility can reduce the level of marital intimacy between couples. When couples do not experience this intimacy, they begin to blame and criticize each other.

Couples who try to control each other's behavior instead of paying attention to each other's needs, create an atmosphere full of negative energy; As a result, as the intimacy between them decreases, the attractiveness of the marital relationship decreases over time, and as a result, behaviors such as extramarital affairs and infidelity are provided for the re-experience of the initial intimacy.^[22] Reality therapy based on choice theory for infertile women can help reduce the couple's controlling behaviors, which can prevent the formation of destructive communication patterns in the couple's relationship. Blaming and criticizing each other's behavior usually occurs when one of the two couples considers themselves problem-free and the other is the main cause of marital challenges, especially the infertile woman, which is created by creating a pattern of chase-escape and other destructive patterns causing couples to distance themselves from each other while not trying to control the behavior of others and accepting their responsibility to improve the quality of marital life.^[35] This nonjudgmental seeing and hearing provides an opportunity to increase trust and intimacy in the marital relationship. By adopting a nonjudgmental and uncontrollable perspective, couples can express their real selves, their needs and wants to each other. In this case, each of them will come to the conclusion that the love and affection that exists in their lives is real and not the result of the false role that they had to play as a result of controlling each other. Therefore, it is reasonable to say that reality therapy is effective on marital intimacy in infertile women and its results are lasting over time.^[18]

In fact, reality therapy teaches couples that to have a successful marriage and a satisfying and lasting marriage, they must do things that will improve their relationship and enrich their marriage. This fact-based enrichment can play an optimal role in increasing

intimacy and marital adjustment, reducing marital boredom, improving the quality of spouses' sexual relations, preventing spouses from breaking their vows, and choosing a responsible lifestyle.^[36]

The present study has some limitations because it was performed only on infertile women in Shahriar city and without a control group, which limits the generalizability of the results. Nor can the results be generalized to infertile men suffering from infertility. In addition, in this study, there was no long-term follow-up after therapy and its follow-up was short-term (40 days after intervention). Information and data related to research variables were collected through participants' "self-report and using a questionnaire and this method can be influenced by influential factors such as respondents' tendency to provide community-friendly answers. It is suggested that other research methods such as interviews and observations be used to measure this variable to reduce possible biases. It is also suggested that studies on the effect of reality therapy on other problems of infertile women such as quality of sexual life, anxiety tolerance, emotional dysfunction, marital satisfaction, and adjustment are essential to help solve more problems of infertile women. In addition, similar studies on infertile men are required.

Limitations can be noted in the study was done only on women; it is possible that gender affects the results and also in extending it to other groups should be taken with caution. Moreover, lack of control over some family variables such as participants' moods during the study, spouse support, employment or housekeeping, and related stresses, and also that due to time limit, it was not possible to extend the follow-up period.

Conclusions

The results showed that reality therapy was able to significantly improve sexual satisfaction and marital intimacy in infertile women and the results were lasting in the follow-up period. Based on the results, reality therapy can be used as an effective intervention to improve sexual satisfaction and marital intimacy in infertile women. In this regard, it is suggested that counselors and therapists use treatment methods such as reality therapy to improve the sexual satisfaction and marital intimacy of infertile women.

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Conflicts of interest

There are no conflicts of interest.

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