Treatment efficacy of sexual functioning and couples' intimacy

Mahin Askari [1], Masoomeh Namjoo Aboosaeidi [2]*, Amirreza Tousirad [3]

[1] Tobacco and Health Research centre, Hormozgan University of Medical Sciences, Bandar Abbas, Iran.
[2] Department of psychology, Gheshm Humanities Branch, Islamic Azad University, Gheshm, Iran.
[3] Ph.D. student in Educational Psychology, Islamic Azad University of Kerman, Kerman, Iran.

ABSTRACT

Background and Objectives: Sexual dysfunction and intolerance of couples are among the problems of recovered addicts; they can have negative and irreparable consequences for these people and their families. The purpose of the present research was to evaluate the effectiveness of treatment based on improved quality of life on sexual function and intimacy of recovered addicted couples. **Methods**: This research was a quasi-experimental study with pre-test, post-test, and control groups. The statistical population consisted of all recovered male addicts with their couples in Kerman in 2017 (120 persons). Using purposive sampling, 30 couples (30 recovered addict men and 30 spouses) were randomly assigned to experimental and control groups. The treatment based on Improved Quality of Life was applied to the experimental group in 8 sessions. At the end of this period, both groups completed the questionnaires as the post-test. Data were analyzed using covariance analysis. **Results**: The results showed that treatment based on improving the quality of life significantly affected the sexual function and intimacy of recovered addicted couples ($p < 0.001$). **Conclusion**: Due to the effectiveness of this treatment, its use is suggested to improve the sexual function and intimacy of addicted couples.

Key Words: *Treatment based on Improved Quality of Life, Sexual Function, Couples Intimacy, Recovered Addicts*

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INTRODUCTION

Addiction is a chronic and recurrent disorder that threatens human health and life; it has been studied as a complex and multifactorial phenomenon from different biological, psychological, cultural, social, and spiritual perspectives [1-3]. As the most common psychiatric disorder under study after mood disorders, in addition to health threats, addiction has serious consequences on family life, medicine, psychiatry, law, economics, security, and cultural development of society. This disorder not only overwhelms individual life but also creates many disadvantages for the family and society and overloads them [4].

On the other hand, a chronic and serious illness in a family member usually has a profound effect on the family system, roles, performance, and quality of life of the family members. One of the most common consequences of substance abuse is sexual dysfunction [5]. According to the researches, sexual dysfunction caused by persistent and chronic use of opiates is one of the most serious problems for their users [6]. Sexual dysfunction caused by substance abuse can occur at all stages of sexual arousal (erection), platoon (sexual arousal), and orgasm (ejaculation) in the sexual reaction cycle and can cause psychological problems such as depression and marital problems between the consumer and his/her spouse [7]. The International Classification of Diseases describes sexual dysfunction as a person's inability to engage in desired sex, which may be a sign of problems of biological origin or of psychological conflicts with interpersonal problems or a combination of these factors [8, 9]. Any type of stress, emotional disturbance, or ignorance of physiology and sexual function can have a negative impact on sexual function [10]. Although the use of opiates, especially opium and heroin, is associated with reduced anxiety and temporary mood enhancement and improved sexual function in early use, gradually, with continued use, the libido gradually declines or becomes stopped, thus sexual stimulation does not occur and the individual does not reach orgasm or

Corresponding author: Masoomeh Namjoo Aboosaeidi
Address: Ph.D. student in Consulting, Islamic Azad University of Qeshm, Queshm, Iran.
E-mail: dr.aboosaeidi99 @ gmail.com
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ejaculation at all; sexual and physical violence and verbal abuse occur and disagreement gradually increases and it undermines the family [11]. The results showed that 60% of heroin-dependent patients had difficulty achieving orgasm, and opioid-addicted men had severe erectile dysfunction, and methadone treatment was significantly effective in reducing erectile dysfunction [12]; 24% of male patients with substance abuse and methadone maintenance treatment suffer from mild-to-moderate sexual disorders and 18% of them suffer from severe sexual disorders [13].

Another side effect of drug abuse is its adverse effects on the couples' intimacy. Many of the behaviors of people who are involved in drug abuse are changed and their relationships may not be maintained, as well as the lives of people living with a drug addict are at risk [14]. Intimacy is the emotional, intellectual, social, physical, and spiritual approach to each other's lives. Creating intimacy is a fluid process, not a static approach [15]. Reflection of addiction on the quality of the relationship with the spouse and the presence or absence of stable or unstable intimate relationships with the spouse can shape the future of a marriage. Addiction can threaten, harm, or lead to gradual deterioration of intimacy between spouses [16]. Researches showed that avoiding intimate relationships is one of the factors that lead to failure in family life; most theories regard marital satisfaction as the amount of intimacy experienced by couples. Satisfaction in intimate couples accompanies with the greater ability to handle conflict and changes in the relationship; the intimacy also has a positive and significant relationship with compatibility and sexual satisfaction [17]. When people try to quit their addiction, they begin to rebuild their lives. One of the most important things in recovery is the need to focus on intimacy and sexual relationships. This is the most difficult stage for some people who are dealing with addiction and returning to life, which requires considerable time and serious effort to recover [18].

In some situations, one can benefit from some types of counseling to prevent the existence of essential issues and problems in developing a satisfying intimate relationship. Quality of life therapy supports the life satisfaction approach. In this approach, patient-focused skills are trained in identifying, pursuing, and meeting needs, goals, and desires in the areas of valuable life. Quality of life therapy is the cohesion of cognitive therapy and positive psychology that is harmonious with the ultimate formulation of Beck's cognitive therapy and cognitive theory of depression and psychopathology. The three pillars or cores of quality-of-life interventions are intrinsic richness, time with quality and meaning [19]. The findings of the research showed that learning to express emotion directly and supporting feedback receiving leads to the development of friendships to the emotional intimacy in the relationship of troubled couples [20]. Training in imago therapy techniques is of effect in enhancing the marital intimacy of drug abusers and their spouses. Cognitive-behavioral group therapy has a positive and significant effect on improving the quality of life of opioid addicts treated with methadone maintenance therapy [21].

Since family is one of the main pillars of society and achieving a healthy society is dependent on mental health and having favorable relationships with family members, the normalization of relationships in families has positive effects on the society. Perhaps the most important role in strengthening families is the intimacy between couples, so it is very important to consider the aspects of intimacy between couples and the factors that influence it. On the other hand, given the devastating effects of addiction, it is important for psychologists and counselors to address it; having conducted research on addiction and family well-being, it can be sought to promote mental health. The purpose of the present research was to provide information on the quality of life-based treatment by examining its relationship with variables such as sexual function and couple intimacy in the recovered addicts; so it can help clinicians, therapists and psychologists in clinical and family settings to achieve an accurate and comprehensive perspective in treatment based on recovered quality of life and apply it to promote the mental, emotional and biological health of individuals. One way to increase intimacy and improve communication and sexual functioning among couples is to educate them, but most previous researches have focused mainly on the normal populations and individuals. Thus, based on the effective and successful results of educating the techniques and strategies of the approach to quality-of-life-based treatment, the present research investigated the effectiveness of the quality-of-life-based treatment on sexual function and intimacy of couples.

METHODOLOGY

This research was a quasi-experimental study with a pretest-posttest and control group. The statistical population of the research consisted of all male recovered addicts with their couples in Kerman in 2017 (120 persons). At first, the researcher had contacted the aforementioned recovered addicts and after explaining the purpose and method of conducting the research, they were encouraged to participate in the research and complete the questionnaires; after obtaining assurance of confidentiality, their informed consent was obtained. Then, the International Erectile Function and Couples Intimacy Questionnaires were administered to the sample group. Then all questionnaires with individual characteristics were scored (total of 45 questionnaires). A sample size of 30 couples (30 recovered addicted men and 30 wives) was randomly assigned to 15 couples in the experimental group

and 15 couples in the control group. Then, the treatment based on the improvement of quality of life, described in the following pages, was implemented for the experimental group. The control group and other individuals who completed the questionnaires were placed on the waiting list for intervention, which was also completed at the end of the treatment period. After the end of the treatment period for the experimental group, the questionnaires were again administered as a post-test for both groups. Thus, for each of the variables, two scores of pre- and post-test were obtained. Inclusion criteria for the sample group were: recovered drug addicts who consumed the traditional ingredients (opium and its derivatives), the recovery period of the sample group had to be between 6 months and 3 years whose recovery was confirmed by doctors, psychiatrists, and psychologists, being married whose partner was only their spouses, medication without psychological, psychiatric, and sexual enhancement while engaging in research, not having mental disorders especially anxiety and personality disorders; couples' attending treatment sessions were mandatory. Exclusion criteria included those who did not participate in treatment for more than one session, and their reluctance to continue working by the recovered addicts or their spouses, and the non-completion of questionnaires.

Statistical analysis of covariance was performed using SPSS, version 21, software. The following questionnaires were used in the present research:

The Marital Intimacy Scale: This 17-question scale was developed by Walker and Thompson (1983) to measure intimacy between couples and has four subscales: emotional closeness in the form of affection, self-sacrifice, and satisfaction and willingness. The subject score on the intimacy scale is obtained by summing the scores of the questions and dividing them by 17. The scores of each question range from 1 (never) to 7 (always), with a higher score indicating greater intimacy. This scale has good internal consistency with alpha coefficients of 0.91 to 0.97 and its content and formal validity have been evaluated by 15 consulting professors. This questionnaire has been administered in Iran. Total scale reliability coefficient was reported to be 0.96 that indicates the acceptability of the questionnaire. Calculating reliability by omitting each question also showed that omitting the questions did not have any significant effects on the reliability coefficient [22].

The International Erectile Functioning Scale: The 15-question scale designed by Rosen, Altov, and Giuliano (1977) covers five main areas of sexual function [23]. The questionnaire was translated from English to Farsi. The scales of this questionnaire included orgasm function, sexual desire, erectile function, intercourse satisfaction, and overall satisfaction. The maximum score in the erectile dysfunction section of this index is 30, in the sections of orgasmic and it was 10 for sexual dysfunction assessment, 15 for sexual satisfaction, and 10 for overall sexual satisfaction. In a study conducted by Lim et al. in Malaysia, the under-curve surface of the tool in Malaysian language was 86% with a sensitivity of 85% and a specificity of 75%. The scale is based on the Likert scale. The validity and reliability of this universal index are widely validated and used in other countries (Asia, Europe, and the US) in 10 different languages. The Persian version of the International Index of Erectile Function in the Assessment of Men with Sexual Impairment has been confirmed. In a study carried out by Kasov et al., the use of this questionnaire was found to be a useful tool in the evaluation of patients with erectile dysfunction [24]. The Cronbach's alpha value in this study on 20 opiate users was 0.92 within 2 weeks of the test, indicating high validity of this index to meet all the objectives of the present research.

Quality of life-based treatment: This research used a Quality of life-based treatment package and the recovered addicts and their couples were presented in the experimental group. Treatment sessions were executed in eight 2-hour sessions and in eight consecutive weeks.

Table 1: Content heading of quality of life treatment sessions

Sessions	Content
First	Communicating and introducing members, stating group rules, goals and introducing training courses, getting participants a commitment to attend sessions, introducing and discussing quality of life, life satisfaction, happiness, pre-test performance, feedback
Second	Review of previous session discussion, definition of quality of life treatment, introduction of quality of life dimensions, familiarizing group members with the tree of life and discovering problematic members, summarizing the discussion, providing feedback
Third	An overview of the discussion of the previous session, introducing Casio as five roots, starting with one dimension, introducing C as the first strategy, and applying it to the quality of life dimensions
Fourth	Review of the previous session, discussion of Casio, introduction of A as the second strategy, application of the second strategy in the dimensions of quality of life
Fifth	Review of the previous session, discussion of Casio, introduction of CIV as third, fourth and fifth strategies to increase life satisfaction, teaching the principles of quality of life
Sixth	Reviewing the previous session, discussing the principles of quality of life, presenting the principles and explaining the application of these principles to increase satisfaction
Seventh	Reviewing the previous session, continued discussion of the principles, discussing the

	domain of relationships, and applying important principles in the domain of relationships
Eighth	Summary of the contents of previous sessions, summarizing and teaching Casio generalization in different living conditions and applying principles in different aspects of life

Active participation was emphasized in the group based on the quality of life treatment and group discussion, lecture, problem solving, and teaching aids such as PowerPoint were used. In the beginning, the sessions were begun with group discussions.

FINDINGS

In the present research, 30 recovered addicts participated with their spouses. The highest age was 60 years and the lowest age was 24 years. The mean age of men and women in the experimental group was respectively, 40.71 and 35.50 and in the control group, it was 42.67 for men and 36.14 for women.

Pre-test and post-test were performed to evaluate the efficacy of quality of life-based treatment on the sexual function and intimacy of the couples of recovered addicts in two groups, the results of which have been presented in Table 1:

Table 2: Descriptive statistics of pre-test - post-test scores of the components of sexual function and intimacy of couples

		Pretest		Post-test	
Variable	Group	Mean	Standard deviation	Mean	Standard deviation
Orgasm	Experiment	8/53	1/50	4/6	1/34
	Control	8/57	1/18	7/3	1/7
Sexual desire disorder	Experiment	7/20	1/37	3/35	0/99
	Control	7/7	0/96	7/33	2/02
Sexual satisfaction	Experiment	13/4	1/59	6/73	1/52
	Control	11/93	1/42	10/72	2/18
Erection dysfunction	Experiment	22/74	2/72	12/52	2/50
	Control	22/44	3/12	21/76	5/27
Overall satisfaction	Experiment	9/00	1/00	4/64	1/54
	Control	8/32	0/72	7/86	1/7
Overall sexual dysfunction	Experiment	62/6	4/25	55/12	5/47
	Control	62/17	3/34	61/37	5/14
Intimacy	Experiment	72/34	4/11	79/67	4/07
	Control	71/26	4/02	72/54	5/40

As shown in Table 2, the mean scores of the orgasmic component and sexual desire disorder of the control group subjects in the pre-test were 8.57 and 7.7, in the post-test 7.3 and 7.33, respectively. The scores of subjects in the experimental group were 8.53 and 7.20 in the pre-test and 4.6 and 3.35 in the post-test. The mean scores of sexual satisfaction and erectile dysfunction in control group subjects were 11.93 and 22.44 in the pre-test and 10.72 and 22.74 in the post-test, respectively; in the experimental group, they were 13.4 and 21.76 in the pretest and 10.72 and 12.52 in the post-test, respectively.

Also, the mean scores of the overall satisfaction and sexual dysfunction in the control group subjects were 8.32 and 62.17 in the pre-test and 7.86 and 61.37 in the post-test, respectively. For the experimental group, they were 9.00 and 62.6 in the pretest and 4.64 and 55.12 in the post-test, respectively. The mean scores of intimacy in the control group were 71.26 in the pre-test and 72.54 in the post-test and in the experimental group they were 72.34 in the pre-test and 79.67 in the post-test.

The covariance analysis was used in order to test the effect of quality-of-life treatment on the sexual function and intimacy of couples and to control the effect of the pre-test. At first, test assumptions such as the linear relationship between the random auxiliary variable and the dependent variable were examined and confirmed. Multivariate analysis of covariance was done on the post-test scores by comparing them with the pre-test. Table 2 shows the results of the multivariate analysis of covariance on post-test scores.

Table 3: Multivariate Analysis of Covariance for Comparing Mean Post-Test of Sexual Functioning Components in Intervention and Control Groups

Effect	Test	Value	F	df	Df of error	Significance level	Effect size	Test power
Group	Pill's trace	0.61	6.42	5	20	0.01	0.52	0.97

Table 3 shows that there was a significant difference between the intervention and control groups in terms of at least one of the dependent variables (sexual function components). Table 3 shows the results of the covariance analysis for comparing the posttest of sexual function components in the intervention and control groups.

Table 4: Covariance analysis for comparing posttest of sexual function components in intervention and control groups

Dependent variable		Total squares	df	Mean squares	F	Significance level	Effect size	Test power
Group effect	Overall satisfaction	34/36	1	34/36	12/70	0/01	0/36	0/95
	Erection	273/24	1	273/24	15/64	0/01	0/39	0/96
	orgasm	17/69	1	17/69	6/54	0/01	0/21	0/98

	Sexual desire	39/99	1	39/99	21/05	0/01	0/46	0/99
	Sexual satisfaction	50/87	1	50/87	12/78	0/01	0/36	0/95

The results in Table 4 shows that the analysis of covariance in the component of overall satisfaction (F = 12.70 and P = 0.01), erectile dysfunction (F = 15.64 and P = 0.01), orgasmic disorder (F = 6.54 and P = 0.01), sex desire dysfunction (F = 21.05 and P = 0.01), and sexual satisfaction disorder (F = 12.78, P = 0.01) was significant. Therefore, research hypotheses about the effectiveness of quality of life education in improving sexual function were confirmed.

Table 4 shows the results of the analysis of covariance for the effect of the intervention on the intimacy scores in the two groups.

Table 5: Covariance analysis of the effect of the intervention on couples' intimacy scores

Variable		df	Mean squares	Value F	Significance level	Square eta	Test power
Groups	Pretest	1	46644/02	12/69	0/01	0/64	0.96
	Pot-test	1	81207/79	16/94	0/01	0/86	0.98

According to the results of the above table, the effect of the pre-test was significant (12.96) at the level of 0.01. Test power was (0.98). Also, the intervention effect was significant (16.94) at the level of (0.01), which indicated a significant continuation of effect in quality-of-life education on the intimacy of couples. In intervention effects, test power was (0.98).

DISCUSSION

Based on the findings of the previous section, the results of the first step of the research, i.e. investigating the hypothesis: "quality of life-based therapy improves sexual function" showed that covariance analysis in the component of overall satisfaction (F = 12.70, P = 0.01), erectile dysfunction (F = 15.64, P = 0.01), orgasmic disorder (F = 6.54, P = 0.01), sexual desire disorder (F = 21.05 and P = 0.01) and sex satisfaction disorder (F = 12.78, P = 0.01) was significant. Therefore, the research hypotheses about the effectiveness of quality of life education in improving sexual function were confirmed and these findings were in line with the research results of [6, 7, 11, 20, 21].

Also, treatment based on improving the quality of life improved the intimacy of the couples and showed that the analysis of covariance of the pre-test effect (12.96) was significant at the level of (0.01). Test power was (0.98). Also, the intervention effect was significant (16.94) at the level of (0.01), which indicated the significant continued effect of quality of life education on the intimacy of couples [16, 19, 22].

The results showed that there was a significant difference between the mean scores of the experimental and control group in the post-test. That is, quality-of-life treatment was of effect on the sexual function and intimacy of couples. There was no direct investigation showing the effect of quality-of-life therapy education on the sexual function and intimacy of couples. However, similar studies have been referred in the following.

Based on the above findings, it can be concluded that quality of life therapy can be of effect on the sexual function and intimacy of couples since cognitive therapy is one of the effective ways of life satisfaction and the quality of life therapy is the same cognitive therapy with positive psychology. Frisch's approach toward enhancing life satisfaction is focused not only on one area of life but also on 16 domains and on providing cognitive working procedures to change satisfaction in these domains. It also challenges treating people in one dimension only because human satisfaction with life is affected by different dimensions. Various studies have also shown that sexual function and intimacy of couples are influenced by many factors and the emphasis on one-dimensional treatment to enhance sexual function and intimacy of couples does not seem reasonable. It is as if one part of the body is only focused and the other parts are forgotten. Certainly, the weakness of one part disables the other organs. In addition to focusing all of one's energy on one part, the rest of the organs become weaker each day.

Quality of life therapy is a coherent cognitive therapy and positive psychology that is consistent with Beck's latest formulation of cognitive therapy and cognitive theory of depression and psychopathology. Quality of life therapy involves an approach to increase satisfaction and intimacy between couples [20]. In this research, by working on different domains and activating all domains in the lives of individuals, the quality of life therapy is trying to increase the sexual function and intimacy of couples by providing therapy based on improving the quality of life and positive psychology. It seems that working on different domains and increasing clients' domains can reduce their magnification to one domain and expand their domain and increase the sexual function and intimacy of couples in them. By increasing couples' domains, incorporating theoretical foundations of cognitive-behavioral approach and positive psychology of quality-of-life therapy, presenting strategies and principles of this treatment, this research aimed to increase sexual function and intimacy of couples from among 16 areas of this approach. The results also showed that there was a significant difference between the control and experimental groups in the post-test, indicating the effect of this treatment on the sexual function and intimacy of couples.

Some limitations of the present study were the generalizability of its results. Since our population was limited to the recovered addicts of Sociable Center, in generalizing its results one needs to be cautious. This research has not been longitudinal and consecutive. It was done by the researcher. Questionnaires were used in this study, and behavioral observation and other clinical parameters were not used to confirm self-report scales. The statistical population was not easily accessible, and we also faced a lack of cooperation from the Anonymous Society of Addicts. This research was about recovered addicts whose consumption of drugs was traditional and was not generalizable to the industrial drug addicts. It was conducted on people whose recovery was through detoxification and abstinence; it is not recommended for people who have been on methadone withdrawal and drug therapy.

Given that the results of this research were based on the effectiveness of the education of treatment based on improving the quality of life of addicts, the addiction treatment clinics, counseling centers, couples' clinics, municipal health homes, and all departments that are concerned with the education of couples and addicts are recommended to use the framework of the educational sessions of this research. The method of quality-of-life therapy was applied in the present study in group. Therefore, we recommend performing it individually on couples and compare its results with the treatment in group. Due to the lack of research on this type of treatment, further researches are needed. In order to control the effect of personality and experience of the therapist on the results of the research, we recommend repeated research by other therapists. Using this treatment in longitudinal and follow-up researches is another suggestion. This research has been done on the recovered addicted men and it is suggested that a study on the recovered addicted women be conducted.

CONCLUSION

According to the findings of this research, we can conclude that quality-of-life treatment can increase the marital intimacy of drug abusers and their spouses; it makes a significant contribution to providing a healthy family environment and warm and intimate relationships to maintain mental and physical health and prevents relapse after the treatment. Marital intimacy and satisfaction are the results of spouses' communication skills, rational conflict resolution, rational expectations, and beliefs. We recommend that counselors and psychologists use a quality-of-life approach in the marital interventions and while improving recovered addicts' relationships.

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