



An Investigation into the Effects of Methadone Maintenance Treatment on Decrease of Marital Conflict in Drug Abuse Patients

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ABSTRACT: This is a semi-experimental study into the effects of methadone maintenance treatment on decrease of marital conflicts in patients referred to addiction treatment centers. Sixty patients from among those referred to a Tehran treatment center in a 6-month period were selected and subsequently distributed into the test and control groups (each group consisting of 30 patients). The control group patients were those who, for any reason, had refused methadone maintenance treatment. The research tools included the marital conflict questionnaire (MCQ). A Cronbach alpha reliability coefficient of 0.734 was obtained for the marital conflict test scales. The statistical methods used included the covariance analysis test and Levine test for independent groups. Upon the SPSS analysis of the research data, the following results were obtained :As compared with the control group, the patients who had undergone methadone maintenance treatment suffered fewer cases of marital conflict ($p=0.005$, $F=8.461$). With respect to marital conflict subscales, this effect was reported as follows: The "increased cooperation" subscale had a significant effect ($p=0.024$, $F=5.405$). The "increased sexual relations" subscale had no significant effect ($p=0.600$, $F=0.279$). The "decreased emotional reactions" subscale had a significant effect ($p=0.000$, $F=15.173$).The "decreased drawing of support from children" subscale had a significant effect ($p=0.005$, $F=8.583$).The "increased personal relations" subscale had a significant effect ($p=0.000$, $F=47.848$).The couple's "non-separation of financial affairs" subscale had a significant effect ($p=0.000$, $F=19.101$). The "increased family relationships with in-laws and friends" subscale had no significant effect ($p=1.0$, $F=2.361$).

Keywords: Maintenance Treatment, Methadone, Marital Conflict

INTRODUCTION

Drug abuse is undoubtedly among the most important problems in today's world since, in addition to endangering the patient's physical/mental health and intellectual deterioration; it imposes heavy financial losses on the patient as well. Moreover, it deprives productive forces in the society from their means of livelihood, thus bringing about disintegration of entire families ¹.

Due consideration of the above facts would make the physical-mental rehabilitation of drug abuse victims an inevitable task. Any rehabilitation program can be categorized as short term and long term treatment programs. Short term

treatments include maintenance treatment, elimination of drug abuse and elimination of anti-social behavior. Long term treatments may include acquisition of confrontational skills, accommodation for resistance against drug abuse, and acquisition of the necessary skills for obtaining the social capacities required for development of a mature personality. Drug abuse is a disaster for the drug abusers, their families, and the society as a whole. For this reason, drug abuse has been identified as a significant factor in social and economic, as well as hygiene and crime-related problems. Reliance on addictive drugs is on the rise in China, India, Indonesia, Russia, Malaysia, Pakistan, Iran, and many other countries. As a result, in recent years, the global load of drugs on health has gone up to 0.7 percent according to expert estimates. That is why politicians are concerned about drug addiction as a public health threat which needs to be addressed through appropriate programs and interventions. Methadone treatment is a medical treatment method which can help drug abusers to control their dependency on drugs².

Whereas in developed countries medical methods such as buprenorphine and methadone treatments are employed for controlling drug abuse, in developing countries these methods are not accepted, and other non-medical treatments are implemented instead, including exerting force, prison sentences, making arrests, etc³.

Marital conflict between husband and wife is not an uncommon occurrence. It breeds dissatisfaction, hopelessness, and angry feelings in the spouses. Ellis defines marital satisfaction as the feeling of gratification, satisfaction, and pleasure experienced by either spouse upon considering all aspects of their marital life².

Reis defines marital conflict as a kind of marital relation involving violent behaviors such as insult, blaming, criticism, and physical attack, in the course of which each spouse, while expressing his/her enmity, spite, rage, and hatred towards the other spouse, accuses the other spouse of being an unfavorable, incompatible person who inflicts great pain and suffering on him/her. Invariably, interpersonal conflicts have the following components in common: 1) Quarreling (verbal arguments), and 2) Physical violence⁴.

Marital conflict might have various sources, but it is now clear that drug addiction always leads to marital conflict.

The purpose of this study is to investigate how methadone maintenance treatment can decrease marital conflict between couples with a drug abuse problem. The research hypothesis includes examining the effects of methadone maintenance treatment on decreasing marital conflict. The subscales considered include increased cooperation, increased sexual relation, decreased emotional reactions, decreased drawing support from children, increased family relationships with in-laws and friends, increased relationships of the patient with its own relatives, and the couple's non-separation of financial affairs.

MATERIALS AND METHODS

The research method is semi-experimental with control group where the independent variable is applied to the test group and the obtained results are compared with those from the control group. The research questionnaires were distributed among the patients referred to a certain addiction treatment center in Tehran. The conditions set for entering the study were: being under methadone maintenance treatment, addiction to drugs, being married, not suffering from physical diseases, psychological disorders, disability, and other mental illnesses, and voluntary consent to enroll in the study. After a lapse of six months, the questionnaires were again distributed among the patients. As, during the course of this study, many patients stopped or completed their treatment, enough questionnaires had to be answered in the pre-test stage so that the required sample size could be obtained for the study. Upon gathering the required data, the marital conflict information obtained before and after the test was compared with the corresponding information recorded for the control group.

The statistical population included all patients suffering from drug abuse who went to Tehran addiction treatment centers for treatment, from among which a certain clinic was chosen for the study. Consequently, the patients coming to this clinic were considered for this study. Eighty patients were selected from this population based on the mentioned selection criteria, of which 60 were arranged in the test and control groups (30 patients each), and 20 were considered to compensate for any losses that might occur in the test and control groups. Subsequently, the questionnaires were distributed among the patients.

The independent and dependent variables were chosen as "methadone maintenance treatment" and "marital conflict" respectively. The measuring tool was the MCQ containing 42 questions (prepared in 1996 by Sanai and Barati under the supervision of Pasha Sharifi, based on clinical experience). This questionnaire measures seven aspects of marital conflict including the following subscales: 1) decreased cooperation between couples, 2) decreased sexual relation, 3) increased emotional reactions, 4) drawing support from children, 5) increased personal relationships with in-laws and friends, and 7) non-separation of financial affairs. In the questionnaire, higher and lower scores mean more conflict and better relations respectively. To calculate the questionnaire's validity and reliability, the answers provided to it by a group consisting of 111 persons (53 men and 58 women) with marital conflict, and a group consisting of 108 ordinary persons (53 men and 55 women) were compared. The comparison indicated that a significant difference existed between the two groups. The standardization procedure applied by Dehghani (2001) to a group consisting of 30 persons yielded the Cronbach alpha values for the whole questionnaire as 0.73, and for the seven abovementioned subscales as 1) 0.73, 2) 60.0, 3) 74.0, 4) 65.0, 5) 81.0, 6) 89.0, and 7) 69.0.

RESULTS

Research Hypothesis: The methadone maintenance treatment is effective on decreased marital conflict in patients suffering from drug abuse. In other words,

there is a significant difference between the post-test marital conflict scores obtained for the MMT groups and those obtained for the control group.

In all cases, the Levine test was performed, and the requirement of equal variances was confirmed for all the variables.

In the analysis, the pre-test marital conflict scores obtained from the groups were controlled, i.e., the effect of these scores on the total post-test scores were eliminated from the results, and subsequently, comparison between the groups was conducted based on the remaining scores.

Table 1. Covariance Analysis of “Marital Conflict” Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test “Marital Conflicts”	3047.131	1	3047.131	25.254	0.000	25.254	0.999
Independent Variable	Group Membership	1472.936	1	1472.936	12.207	0.001	0.176	0.930

The pre-test mean values observed before control was exerted are given first.

For the MMT group, the mean value is obtained as 86.73 and the standard deviation as 12.39, whereas for the control group, these values are recorded as 75.63 and 13.73 respectively. The mean marital conflict post-test score values evaluated upon controlling the pre-test effect variable for the MMT and the control group are 86.154 and 2.076.212 respectively, with the corresponding standard deviations for both groups calculated as 2.009.

Table 1 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) marital conflict results. Therefore, group membership was effective on the dependent variable ($p = 0.024$ and $P < 0.05$).

Secondary Research Hypotheses

Table 2. Covariance Analysis of “Increased Cooperation” Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test “Increased Cooperation”	19.984	1	19.984	2.629	0.110	0.044	0.357

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Independent Variable	Group Membership	41.083	1	41.083	5.405	0.024	0.087	0.628
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Table 2 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) "increased cooperation" results. Therefore, group membership was effective on the dependent variable ($p = 0.024$ and $P < 0.05$).

Table 3. Covariance Analysis of "Increased Sexual Relations" Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test "Increased Sexual Relations"	145.072	1	145.072	43.730	0.000	0.434	1.000
Independent Variable	Group Membership	0.925	1	0.925	0.279	0.600	0.005	0.081

Table 3 shows that the difference observed between the remaining scores (after control) obtained for "increased sexual relations" is not significant. Therefore, group membership was not effective on the dependent variable ($p = 0.600$ and $P > 0.05$).

Table 4. Covariance Analysis of "Decreased Emotional Reactions" Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test "Decreased Emotional Reactions"	667.360	1	667.360	76.220	0.000	0.572	1.000
Independent Variable	Group Membership	132.849	1	132.849	15.173	0.000	0.210	0.969

Table 4 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) "decreased emotional reactions" results for the two groups. Therefore, group membership was effective on the dependent variable ($p = 0.000$ and $P < 0.05$).

Table 5. Covariance Analysis of “Decreased Drawing Support from Children” Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test “Decreased Drawing Support from Children”	168.183	1	168.183	19.646	0.000	0.256	0.992
Independent Variable	Group Membership	73.472	1	73.472	8.583	0.005	0.131	0.821

Table 5 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) “decreased drawing support from children” results for the two groups. Therefore, group membership was effective on the dependent variable ($p = 0.005$ and $P < 0.05$).

Table 6. Covariance Analysis of “Increased Relationships with In-Laws and Friends” Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test “Increased Relationships with In-Laws and Friends”	0.270	1	0.270	0.028	0.868	0.000	0.053
Independent Variable	Group Membership	22.912	1	22.912	2.361	0.130	0.040	0.327

Table 6 shows that the difference observed between the remaining scores (after control) obtained for “increased relationships with in-laws and friends” is not significant. Therefore, group membership was not effective on the dependent variable ($p = 0.130$ and $P > 0.05$).

Table 7. Covariance Analysis of “Increased Relationships with Patient’s Own Relatives” Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
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		Freedom						
Covariance Variable	Pre-Test	266.47	1	266.47	32.3	0.000	0.362	1.000
	"Increased Relationships with Patient's Own Relatives"	2		2	18			
Independent Variable	Group	394.01	1	394.01	47.8	0.000	0.456	1.000
	Members hip	7		7	48			

Table 7 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) "increased personal relationships with patient's own relatives" results for the two groups. Therefore, group membership was effective on the dependent variable ($p = 0.000$ and $P < 0.05$).

Table 8. Covariance Analysis of "Non-Separation of Financial Affairs" Difference between the Groups with Controlled Pre-Test Scores

Sources of Change		Squares Sum	Degree of Freedom	Mean Squares	F	Significance Level	Effectiveness	Statistical Power
Covariance Variable	Pre-Test	150.99	1	150.99	25.5	0.000	0.274	0.995
	"Non-Separation of Financial Affairs"	4		4	31			
Independent Variable	Group	133.95	1	133.95	19.1	0.000	0.251	0.990
	Members hip	6		6	01			

Table 8 shows that there is a significant difference between the post-test mean scores calculated for the remaining (after control) "non-separation of financial affairs" results for the two groups. Therefore, group membership was effective on the dependent variable ($p = 0.000$ and $P < 0.05$).

DISCUSSION

The obtained results confirm that the patients undergoing methadone maintenance treatment during the course of the study experienced fewer cases of marital conflict as compared with the control group. The descriptive and inferential analyses of data (presented in Tables 1 and 2 with $F=12.207$ and $P=0.001$) pointed out that methadone maintenance treatment is causes marital conflicts to decrease, so that the control group whose members were unaffected by the independent variable exhibited more marital conflict as compared with the test group. Therefore, the research hypothesis in this study is thus confirmed. The obtained results are in conformity with those obtained by Esmaili ET al⁵. Salarieh et al⁶. And Pournaghsh

Tehrani⁷ who also concluded that methadone maintenance treatment reduces marital conflict. One possible reason for this reduction can be attributed to the change that such treatment introduces in the patient regarding his/her outlook and beliefs. Another reason can be the fact that during treatment, the patient receives more acceptance and positive feedback from his/her family and the society as a whole.

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