



Study the Effect of Maintenance Methadone Therapy on General Health of the Patients Referred to Addiction Therapy Centers in Tehran

Mozhdeh Asadi^{1*}, Mahin Askari² and Javad Golmirzai²

1. Department of Clinical Psychology, Science and Research Branch, Islamic Azad University, Hormozgan, Iran

2. Hormozgan University of Medical Sciences. Bandar Abbas, Iran

*Corresponding author's e-mail: mozhdeh.asadi64@gmail.com

ABSTRACT: This research aims to study the effect of Maintenance Methadone Therapy on general health of the patients referred to addiction therapy centers in Tehran. Study method was quasi-experimental using pretest-posttest design. 60 patients were selected from those referred to the medical centers of Tehran in a time interval of 6 months and were divided into the test and control groups (each group consisting of 30 patients). The Control group patients were selected from among those who rejected taking the medication due to any reason. Research tool was Goldberg general health questionnaire (GHQ). It's the Cronbach alpha (reliability coefficient) of 0.759 was obtained for marital conflicts test scales. Statistical methods included covariance analysis test and Levin test for independent group. The patients who were under therapy with methadone had better general health compared to the control group ($p=0.005$, $F=8.641$). This effect was reported for subscale of general health as below: Physical sign improvement had a significant effect ($p=0.001$, $F=16.47$), Anxiety and sleep disorder had a significant effect ($p=0.002$, $F=10.54$), Depression improvement had a significant effect ($p=0.000$, $F=28.51$) Social function improvement had a significant effect ($p=0.001$, $f=55.10$).

Key words: Maintenance Therapy, Methadone, General Health

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INTRODUCTION

Nowadays, the world is facing the drugs as the main threatening factor and its importance is so much that it is seen as one of the four major crisis of the world (atomic threat, poverty, environmental pollution and drug). In spite of global will, drug production has increased significantly due to invisible hands [1].

Considering the abovementioned fact, the physical and mental rehabilitation of the drug abuser drug abusers becomes inevitable. Different therapy methods are suggested according to the etiology of drug disorders. The fact is that the drug abusers are always deprived of family members' attention and are rejected and isolated from the society and this causes intention of the disease and reduces the hope for therapy. Unemployment, anonymity, lack of money and worst of all, no acceptance in the family and friends accompaniment make the drug abuser depressed and all of his attempts useless and it seems that the disease has become epidemic and everyone escapes from him. So he takes the refugee of his dream world and this erroneous cycle repeats again and again [2].

One of the parameters that should be taken into account in treating the drug abusers is the mind, body and ideology of the patient that should be taken into account together. Special consultation classes must be taken along with solving the physical problem of the patients.

Return of the drug abuser is one of the most important problems that prevents most of the drug abusers and even their families from continuing the therapy. The return process or re-using the drugs happens when the drug abuser suddenly goes back to use the drugs again or increase his consumption. This process is the result of mutual interaction of the individual, family, social and even therapy method factors of the drug abuser. Drug abuser, while in therapy process, should understand that going back to the places where he used the drugs and seeing the objects that revive the memory of drug consumption and seeing the old friends, all can cause him to be more eager to use drugs [3].

Maintenance methadone therapy (MMT) is globally known as an effective, safe and efficient intervention for drug abuser and is the most widespread method in therapy of drug abusers in the United States of America since 1964. It is believed that methadone solves the problems related to quitting the drugs and also has positive effect on different social and personal dimensions. By reviewing the literature in this field, it is known that using MMT not only leads to complete quietness of Heroin but also creates improvement in mental health of people and reduces the social crimes related to its misuse and increases the ability of a person to change to a productive person [4].

Different researches indicated the positive effect of this kind of therapy on general health and life quality of the drug abusers. In a research by Giacomuzzi, it is shown that after 6 month taking methadone, the general

health level of the drug abuser is improved significantly and this improvement is visible in terms of free time, financial status, marital relationship, physical health, mental health and their general satisfaction [5].

The aim of the present research is to investigate the effect of MMT on general health of drug abusers and the research hypothesis includes examining the MMT effect on general health of drug abusers including subscales of physical signs, anxiety and sleep disorder improvements, depression and social function improvement in drug abusers.

MATERIALS AND METHODS

The research method of the present study is quasi-experimental with control group. The Goldberg general Health Questionnaire (GHQ) was used to select 60 of drug abusers of one of the medical centers of Tehran in a time interval of 6 months. The population of the study includes 80 drug abusers in two groups of 30 people called test and control groups and 20 people were considered to compensate the possible losses in both groups. In this research, MMT was considered as the independent variable and dependent variable was general health .

The measurement instrument was GHQ with 38 questions and 4 subscales of (physical signs, anxiety, depression, social function disorder). The reliability coefficient of this questionnaire was 0.88 in total and 0.84, 0.76, 0.71, 0.55, for each subscale respectively.

RESULTS

Research hypothesis: there is difference between general health score of the MMT groups and control group in post-test phase. Levin test was for all the variables and equal variances were obtained among all the groups.

In this analysis, pre-test scores of studied group have been controlled. It means that their effect has been compared based on the reminded scores. The results of the table show that the difference between the mean score of the general health of two groups in pre-test is meaningful and the group membership has affected the dependent variable ($P < 0.005$). Based on the results of the test, $f=8.46$, and $p=0.005$. Since p is less than 0.05 and 0.01, so the confidence level is more than 99% and there is a difference between the mean scores of general health in both MMT and control groups and so the second hypothesis is confirmed. In addition, the null hypothesis based on the no difference between general health of both groups is rejected.

Table 1. Covariance analysis difference of two groups on general health with controlling the pre-test scores

| Change resources | | SS | df | MS | F | significance | Effect | power |
|-----------------------------|-------------------------|---------|----|---------|-------|--------------|--------|-------|
| Dependent variable | General health pre-test | 397.200 | 1 | 397.200 | 13.11 | 0.001 | 13.11 | 0.945 |
| Independent variable | Group membership | 256.31 | 1 | 256.31 | 8.46 | 0.005 | 0.129 | 0.816 |

Secondary Research Hypotheses:

Results of the table 2 shows that the difference between the average scores of physical sign improvement is significant in two groups after posttest and group membership has affected the dependent variable ($p=0.000$, $P<0.05$). Results of the table 3 shows that the difference between the average of scores of anxiety and sleep disorder improvement in two groups after posttest is significant and group membership has affected the dependent variable ($p=0.002$, $P<0.05$).

Table 2. Covariance analysis of two groups on physical sign improvement difference with controlled pre-test scores

| Change resources | | SS | df | MS | F | significance | Effect | power |
|-----------------------------|------------------------|---------|----|---------|--------|--------------|--------|-------|
| Dependent variable | Physical sign pre-test | 139.208 | 1 | 139.208 | 13.11 | 0.000 | 0.166 | 0.921 |
| Independent variable | Group membership | 202.023 | 1 | 202.023 | 16.473 | 0.000 | 0.224 | 0.979 |

Table 3. Covariance analysis of two groups on anxiety and sleep disorder improvement difference with controlled pre-test scores

| Change resources | | SS | df | MS | F | significance | Effect | power |
|-----------------------------|-------------------------------------|--------|----|--------|--------|--------------|--------|-------|
| Dependent variable | Anxiety and sleep disorder pre-test | 8.915 | 1 | 8.915 | 1.314 | 0.256 | 0.023 | 0.203 |
| Independent variable | Group membership | 71.747 | 1 | 71.747 | 10.574 | 0.002 | 0.156 | 0.829 |

Table 4. Covariance analysis of two groups on social function improvement difference with controlled pre-test scores

| Change resources | | SS | df | MS | F | significance | Effect | power |
|-----------------------------|--------------------------|---------|----|---------|--------|--------------|--------|-------|
| Dependent variable | Social function pre-test | 0.062 | 1 | 0.062 | 0.012 | 0.911 | 0.000 | 0.051 |
| Independent variable | Group membership | 140.936 | 1 | 140.936 | 28.517 | 0.000 | 0.333 | 0.999 |

Results of the table 4 shows that the difference between the average of scores of social function improvement in two groups after posttest is significant and group membership has affected the dependent variable ($p=0.000$, $P<0.05$).

Table 5. Covariance analysis of two groups on depression improvement difference with controlled pre-test scores

| Change resources | | SS | df | MS | F | significance | Effect | power |
|-----------------------------|---------------------|---------|----|---------|--------|--------------|--------|-------|
| Dependent variable | depression pre-test | 8.889 | 1 | 8.889 | 1.125 | 0.293 | 0.019 | 0.181 |
| Independent variable | Group membership | 435.488 | 1 | 435.488 | 55.103 | 0.000 | 0.492 | 1.000 |

Results of the table 5 shows that the difference between the average of scores depression improvement in two groups after posttest is significant and group membership has affected the dependent variable ($p=0.000$, $P<0.05$).

DISCUSSION

The findings of the research indicated that the drug abusers who have experienced MMT had better general health compared to control group. Descriptive analysis of the data (tables 1 and 2, $F= 8.46$ and $p <0.005$) indicated that the MMT has been effective in terms of general health and has increased it. Control group who were not influenced by the variable had lower health compared to the test group and so it should be pointed that MMT has significant effect on improving the general health of the patients. So the research hypothesis is confirmed and the results of the study are in line with the study of Esteban [6], Giacomuzzi [5] and Mohammadi et al. [7].

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