

Compulsory Maintenance Treatment Program Amongst Iranian Injection Drug Users and Its Side Effects

Sharareh Eskandarieh¹; Firoozeh Jafari²; Somayeh Yazdani¹; Nazanin Hazrati¹; Mohammad Bagher Saberi-Zafarghandi^{3,*}

¹Bureau of Mental, Social Health and Addiction, Ministry of Health, Treatment and Medical Education, Tehran, IR Iran

²Substance Abuse and Dependency Research Centre, Social Welfare and Rehabilitation Sciences University, Tehran, IR Iran

³Tehran Institute of Psychiatry, School of Behavioral Sciences and Mental Health, Iran University of Medical Sciences, Tehran, IR Iran

*Corresponding author: Mohammad Bagher Saberi-Zafarghandi, 3Tehran Institute of Psychiatry, School of Behavioral Sciences and Mental Health, Iran University of Medical Sciences, Tehran, IR Iran. Tel: +98-9121055106, Fax: +98-2188364380, E-mail: saberiza4@yahoo.com

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Background: Psychoactive substance use can cause a broad variety of mental health disorders and social health problems for the drug users, their family and society.

Objectives: The Ministry of Health, Treatment, and Medical Education of Iran has recently proclaimed an estimated number of 2 million drug abusers and 200,000 injecting drug users (IDUs).

Patients and Methods: For data collection, the directory of mental, social health, and Addiction designed a questionnaire in cooperation with Drug Control Headquarters of Iran.

Results: Among 402 IDUs patients, a large amount of them were male, single, and younger than 39 years. Regarding psychotic and somatic symptoms caused by methadone therapy, most of the participants had no problem with methadone maintenance treatment (MMT).

Conclusions: There is a need to train health staff, and the community, concerning preventive measures, treatment, and reducing harm for substance drug users.

Keywords: Drug Users; Methadone; Psychotic Disorders

1. Background

Psychoactive substance use can cause a broad variety of mental health disorders as well as social health problems, not only for the drug users, but also their family and the society (1). Injecting drugs has had the most up-rising route of drug abuse in the past decade, and Iran has the uppermost per capita heroin and opium use in the world (2). Methadone maintenance treatment (MMT) has been consistently used for reducing opioid and other illegal drug abuses, and accordingly, related criminal actions, and overdose hazards. It affects physical health, mental health, and social performance (3). MMT program can be used to control the injecting drug use and leads to more referrals to treatment facilities (4).

For the last 20 years in Canada and other countries, harm reduction program is the core of health service for substance users. Research has shown the benefits of harm reduction approach for substance drug users and the public (4). MMT can improve the health condition and quality of life among opioid addicts. Patients under treatment with methadone have stated their reduction of fear, anxiety, and fatigue after 4 months. The men experienced more energy, while the women expressed less depression (5).

It seems that maintenance programs should be developed without delay all over the country. Hence, the objectives of this study were description of demographic characteristics, types of drug abuse and finally, the somatic and psychotic symptoms caused by MMT among IDUs in Tehran.

2. Objectives

The Ministry of Health, Treatment, and Medical Education of Iran has recently proclaimed an estimated number of 2 million drug abusers and 200,000 injecting drug users (IDUs).

3. Patients and Methods

The combination of medical compulsory treatment program with settlement of homeless addicts is one of the health policies. In order to develop therapeutic support for street addicts in Iran, the Ministry of Health, Treatment and Medical Education has conducted a project entitled "organizing high risk abandoned street addicts (rescue plan)" in partnership with Iran Drug Control Headquarters and the Police Department. A standard

questionnaire was used for data elicitation, which had been designed in the Psychosocial Health Office of the Ministry (6).

To design the questionnaire, we tried to cover the main significant epidemiological variables, which were relevant at the individual level (6). The regular ordered maintenance dosage for MMT was 62.5 mg/day and the most frequent one was 75 mg/d. Three well-trained and skilled interviewers had organized interviews with the participants (7). The study population consisted of self-report arrest of the substance users during 6 months before the start of the research. In the screening step, substance drug abusers were visited by a physician and a psychiatrist and referred to the residential center (Shafagh center). The method of the treatment in this center was according to MMT (7). The health center group consisted of 4 medical doctors, 4 psychiatrics, 3 nurses, and 3 social workers, plus one medical psychologist. Interviewers filled out all questionnaires for each individual.

A cross-sectional study was completed based on the survey of 402 IDUs, which were under arrest by the police force for the period of a programmed police sweep up in Tehran from June 2008 to August 2008 (7). After getting the participants' consent, a questionnaire was fulfilled for all persons using face-to-face interviews by three social workers and one clinical psychologist. The questionnaire covered sociodemographic characteristics, substance

abuse practices, and psychosomatic symptoms caused by MMT. All the statistical analyses were performed using the statistical package for the social science (SPSS Inc, Chicago, Illinois, USA) software version 16.

4. Results

The study sample included 402 injecting drug users who were referred to Shafagh treatment center. Ninety-six point five percent of the addicts were men. Three hundred and twelve (81.6%) participants were 20 to 39 years old with the mean age of 28.78 y. Among the participants, 37.0% were living on the streets.

Most of the participants (82.5%) had a history of at least one-time addiction treatment ($P < 0.05$). Three hundred and twenty-one (82.3%) participants were using opioid, 259 participants (66.4%) heroin, 228 participants (63.2%) crack, and 174 participants (44.6%) cannabis.

Regarding somatic symptoms caused by MMT, more than 60% of the participants had never reported poor appetite, nausea, stomach pain, breathing difficulty, chest pain, joint bone pain, muscle pain, numbness, and tremors (Table 1).

Regarding psychotic symptoms caused by MMT, more than 50% of the subjects had never felt tense, spells of terror, feelings of hopelessness, worthlessness, not interested, and suicidal thoughts (Table 2).

Table 1. Somatic Symptoms Caused by Methadone Therapy^a

	Never	Seldom	Sometime	Often	Always
Poor Appetite (389)	315 (81.0)	28 (7.2)	32 (8.2)	13 (3.3)	1 (0.3)
Fatigue (391)	233 (59.6)	45 (11.5)	86 (22.0)	14 (3.6)	13 (3.3)
Nausea (391)	336 (85.9)	27 (6.9)	22 (5.6)	4 (1.0)	2 (0.5)
Stomach Pains (390)	316 (81.0)	20 (5.1)	37 (9.5)	10 (2.6)	7 (1.8)
Difficulty Breathing (391)	320 (81.8)	30 (7.7)	29 (7.4)	6 (1.5)	6 (1.5)
Chest Pains (391)	346 (88.5)	20 (5.1)	21 (5.4)	3 (0.8)	1 (0.3)
Joint Bone Pains (390)	264 (67.7)	18 (4.6)	78 (20.0)	20 (5.1)	10 (2.6)
Muscle Pains (391)	308 (78.8)	10 (2.6)	55 (14.1)	13 (3.3)	5 (1.3)
Numbness (390)	260 (66.7)	30 (7.7)	82 (21.0)	15 (3.8)	3 (0.8)
Tremors and shaking (389)	234 (60.2)	29 (7.5)	98 (25.2)	20 (5.1)	8 (2.1)

^a Data are presented as No. (%).

Table 2. Psychotic Symptoms Caused by Methadone Therapy^a

	Never	Seldom	Sometime	netfO	Always
Feeling tense (386)	210 (54.4)	19 (4.9)	130 (33.7)	21 (5.6)	6 (1.6)
Feeling fearful (390)	155 (39.7)	30 (7.7)	164 (42.1)	28 (7.2)	13 (3.3)
Nervousness (389)	175 (45.0)	55 (14.1)	88 (22.6)	54 (13.9)	17 (4.4)
Spells of terror (391)	339 (86.7)	15 (3.8)	29 (7.4)	5 (1.3)	3 (0.8)
Feeling hopeless (390)	283 (72.6)	14 (3.6)	59 (15.1)	19 (4.9)	15 (3.8)
Feelings worthlessness (392)	201 (51.3)	25 (6.4)	118 (30.1)	30 (7.7)	18 (4.6)
Feeling no interest (391)	323 (82.6)	16 (4.1)	31 (7.9)	13 (3.3)	8 (2.0)
Feeling lonely (391)	139 (35.5)	27 (6.9)	146 (37.3)	55 (14.1)	23 (5.9)
Suicidal thoughts (390)	295 (75.6)	38 (9.7)	33 (8.5)	18 (4.6)	6 (1.5)

^a Data are presented as No. (%).

5. Discussion

According to this study, drug injection was more common among single men and younger persons, indicating that it is less likely that women become drug users in comparison with men. Men have a higher tendency for risky behaviors (8). Prevalence of age range in drug users was 20 to 39 years. Homelessness has been identified as a main indicator of poor health condition among IDUs. In addition, an Australian study reported the raising spread of risky behaviors, including drug injecting in the community, also distribution of injecting tools among the homeless persons (9). This result may explain the strong role of drug abuse among the homeless people (9).

There is a relationship between sociopolitical and cultural environment with drug abuse, especially for those who are marginalized by social and structural inequalities such as dropouts, poverty, using drugs, being homeless, etc (10). Another research confirmed that treating drug abuse is too difficult and with a high rate of relapse (11). Previous studies have shown that MMT is strongly protective against fatal overdose and its effectiveness is high, with evidence-based social and clinical improvement (11). Another study concluded that the opioid addicts' quality of life and health status would improve when they treated with methadone (5).

According to the results, it seems evident that maintenance programs should be expanded without delay in the whole country. One possible practical and cost-effective answer for harm reduction program is integrating MMT program with the existing health and social services (12). We conclude our study by two suggestions: 1) preventive plans in harm reduction centers, as well as avoidance, treatment, and rehabilitation programs in psychotherapy clinics should include young injecting drug users at the focus of their interference programs; 2) integration of MMT program in national harm reduction plan (12).

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Authors' Contributions

Study concept and design: Mohammadbagher Saberi-Zafarghandi, and Sharareh Eskandarieh; acquisition of data: Mohammadbagher Saberi-Zafarghandi, and Firoozeh Jafari; Statistical analysis and interpretation of data: Sharareh Eskandarieh; drafting of the manuscript:

Sharareh Eskandarieh, Mohammadbagher Saberi-Zafarghandi, Firoozeh Jafari, Somayeh Yazdani and Nazanin Hazrati; critical revision of the manuscript for important intellectual content: Sharareh Eskandarieh, Mohammadbagher Saberi-Zafarghandi, and Firoozeh Jafari; and study supervision, administrative, technical, and material support: Mohammadbagher Saberi-Zafarghandi, Firoozeh Jafari, and Sharareh Eskandarieh.

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