Original Article

An Investigation In To the Effect of Buprenorphine Tablet on Drug Rehabilitation Clinics in Tabriz

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Abstract:

Introduction: One of the typical ways of drug rehabilitation in Iran is the usage of Buprenorphine tablets in drug rehabilitation clinics under the supervision of Practitioner. As the Buprenorphine acts as partial agonists in opioid receptors of the body, thus this medicine is used as the preservative in the dependence on opioid substances and leads to the elimination of the symptoms of drug rehabilitation among people giving up the substances. The aim of this study is to examine the effect of Buprenorphine among the addicted people to opium with daily usage of less than 3 grams in drug rehabilitation clinics in Tabriz.

Methods: This research is carried out as a field study in ten top drug rehabilitation clinics according to the protocol of Tabriz University of medical science. Among existing files in clinics, people with daily opium usage of 3 grams or less were investigated. Patients' information was collected using questionnaires containing nineteen (19) items and analyzed by SPSS software version 19.

Findings: Findings indicate that the age range of (30 to 40) and harsh job situation increase the risk of addiction to opium. No evidence of giving up opium usage in replacement of Buprenorphine was observed. Factors like marital status and smoking are among the risk factors of tendency towards drug.

Conclusion: It seems that Buprenorphine tablets with dosage of 4 mg on daily basis are effective among opium-addicted people with less than 3 grams and could lead to eliminate the giving up symptoms and success of the treatment. As a preservative treatment, it also leads to more stability and coherence in the families and makes the people return to their jobs and society as well.

Keywords: Addiction, Opium, Buprenorphine.

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Introduction:

Despite huge progresses made in fabricating new pain killers, using opioid medicines is still regarded as the most effective method for the purpose of controlling the violent pains, however, dependency and addiction are considered as the most important and limiting symptoms of these medicines. Dependency is a progressive syndrome observed in the person with medicine-seeking behavior even though the usage of medicines is noxious. This is due to the adaptive modifications in receptors, transporters, secondary messengers and other factors such as increasing the Adenylyl cyclose. In other words, dependency on a new level of adaption is due to the repetitive usage of drug formed in the neurological system and in case of lack of using the mentioned substance a sort of deprivation occurs which is removed by reusing.

Buprenorphine is a partial agonist applying its pain killing effect using the effect of opioid receptors on CNS. The half life of this medicine is 2/2 hours and its peak is one hour. This medicine is virtually the semi synthetic derivative of Thebaine. This medicine is receptor agonist of μ (mu) and receptor antagonist of k (kappa). Its medical form is sublingual tablet and ampoule. Given the usage of this medicine in killing violent and average pains, accouchement pain control and post surgery pains in jaws and face, it can be used in treating the dependence on drugs.

Based on the existing evidences, addicted people reports and technical staff comments in drug rehabilitation clinics, Buprenorhpine tablets are effective in addiction to opium (3 grams daily) and could lead to removing the symptoms related to drug giving up. The addicted person to less than 3 grams of opium will go through the supervision and drug rehabilitation treatments by a MMT-experienced practitioner as a technical responsible, a MMT-experienced psychologist and a nurse. The treatment with Buprenorphine is as follow: first week every other day, second week every two days, third week every three days, fourth week every seven days and after the fourth week which is called the Tikom period every nine days. The medicine is a sublingual tablet.

Methadone and Buprenorphine have a similar treatment results in addiction to opium. Therefore it is suggested that repetition of treatment will be carried out using the medicine with which the patient showed progress. This is true in addicted people to less than 3 grams opium. Based on the mentioned points and investigations performed on Buprenorphine, the aim of this study is to examine the effect of Buprenorphine on addicted people to less than 3 grams opium who have commenced their treatment in Tabriz.

Methods:

This cross sectional retrospective study, was performed among 10 (ten) top drug rehabilitation clinics in Tabriz according to the protocol of University in the form of field study. In order to collect data, among existing files in clinics, the ones related to addicted people to less than 3 grams opium were investigated. The total number of dossiers was 235. The data collection instrument was a questionnaire of 19 items. Moreover, the forms related to supervision staff of university, interviews with clinics employees and forms existed within dossiers helped much in collecting information. The

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collected data was analyzed using SPSS and the results were prepared in percentage.

Findings:

Considering the people job, the highest statistics is related to the full time jobs including all the hard jobs such as driving, bakery, worker, painter and blacksmith in which the physical power decreases. As it is shown in the diagram 1, there is a significant relationship between the hardship of the job and decreased physical power of people and work environment with drug usage. As it is observe 79.1% are married and 18.3% was single. Results indicate that there is a significant relationship between marital status and probable pressure related to marriage, differences and family income with their addiction.

Addicted people were investigated in 6 groups in terms of the weight of the used opium (0.5, 1,1.5,2,2.5,3) Results indicate that the highest usage of opium, was 3 grams per day and 65 persons (meaning 27.6%) were in this range. In addition the duration of opium usage was investigated in 7 usage groups. The highest usage duration was between 5 to 10 years with 76 patients (32.3%) in this group. The way of getting acquainted with drug was divided in 6 groups and investigated. Results show that friends have the highest percentage (81.7% or 192 persons) in this category. Addicted people got acquainted mostly with drugs through their friends.

In diagram 1, 2 and 3 the treatment duration with Buprenorphine , their dosage and the effective factors in addiction were investigated.

As it can be seen in the results, 58.7% of the population, tried to give up the addiction by themselves before being admitted in the clinics. Based on the diagram 8 all of them were unsuccessful and fail to give up their addiction. Out of 137 addicted persons having treatment experience before, all of them fail to treat themselves and started using drugs again. However, there were no reports of return to the drugs among patients using Buprenorhpine. It is proved that the Buprenorphine tablet has effective preservative effect in giving up the drugs by drug rehabilitation clinics. Additionally, the longest period of being successful in treatment during three years was 58.7% of the patients and there are no symptoms of being clean from drugs.

The highest rate of using Buprenorphine was 4mg per day meaning two (2) Buprenorphine tablets within three years which seems that patients are kept stable in this dosage. After reaching to a full mental and physical preparation for giving up the tablets, its dosage is decreased gradually. Moreover, 82.1% of the patients addicted to opium had commenced from smoking cigarettes, however 11.4% have considered addiction in the family, 7.7% family differences and 15.7% alcohol abuse as the main reason for getting addicted.

Discussion and Conclusion:

Addiction is a chronic and progressive status and it is not expected to be treated fast. Lack of enough attention to the details of addiction treatment process could lead to reduce the effectiveness and efficiency of the treatment. Given the fact that the effectiveness of components such as the practitioner skills, proper treatment relationship with the patient, creating good motivation to follow up the treatment, family therapy, excitement and anger control, counseling in critical moments,

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careful follow-up and doing tests could increase the efficiency and effectiveness of the treatment, paying enough attention to each of those aspects in the process of treatment could increase the probability of being cured and need to be considered more thoroughly from the treatment team in clinics.

Current study done among 10 top clinics in Tabriz according to the protocols of Ministry of health shows that Buprenorphine with the daily usage of 4 mg was effective among the addicted patients to 3 mg opium and could cause the removal of giving up symptoms and prevents from failure of treatment. Moreover, Buprenorphine acting as the preservative treatment in these patients could stabilize and strengthen the family and make the patients get back to their job and society as well.

Based on the results of this paper, it is suggested that certain arrangements should be considered regarding the education and knowledge of the population specifically people with lower education background and age, people with difficult and full-time jobs which have less relaxation time. It is suggested to consider a topic regarding the effects of smoking within educational book especially in Middle and high schools grades.

It is also suggested to apply strict regulations regarding the usage and distribution of cigarettes and drugs in the society. It is also proposed to give necessary education and awareness in schools and universities regarding the effect of smoking which is mostly the reason of addiction to the drugs. Multimedia also have critical role in providing essential knowledge and awareness in this case**.**

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Tables and Charts:

Table 1: examines the age range of studied population indicating that the highest statistics is related to the age range of 30 to 40 (92 out of 235 meaning 39.1 %).

Age range	Number (person)	percentage	Total
10-20	2	1	235
20-30	40	17.02	235
30-40	92	39.1	235
40-50	54	23	235
50-60	35	14.8	235
60-70	8	3.4	235
70-80	4	1.7	235

Table 2: Demographic characteristics of addicted people to opium.

Variable		Number	Percentage
Job	Unemployed	24	10.2
	Part time	42	17.9
	Full time	102	43.4
	Free lance	65	27.7
Education	Uneducated	16	6.8
	Primary	62	26,4
	Middle school	74	31.4
	High school	63	26.8
	Superior education	20	8.5
Marital Status	Married	43	18.3
	Single	186	79.1
	Divorced	5	2.1

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	Separated	1	0.42

Table 3: Amount, method and record of usage and treatment, treatment failure and familiarity with opium in Addicted people.

Variable		Number	Percentage
Amount of used opium	0.5 Gram	22	9.3
	1 Gram	57	24.2
	1.5 Gram	28	11.9
	2 Gram	56	23.8
	2.5 Gram	7	3
	3 Gram	65	27.6
Method of using opium	Fumigation	103	43.8
	Edible	91	38.7
	Fumigation & Edible	41	17.4
Duration of opium usage (year)	0-5	30	12.7
	5-10	76	32.3
	10-15	42	17.9
	15-20	45	19.1
	20-25	23	9.8
	25-30	9	3/8
Failure of treatment before attending to Clinic	Yes	137	58.3
	No	98	41.7
Experience of treatment	Yes	137	58.3
	No	98	41.7
Where to get familiar with drugs	Friends	192	81.7
	School	7	3
	Work environment	68	28.9
	Relatives	12	5.1
	Party	25	10.6

Figure 1: Duration of the treatment with Buprenorphine in clinics.

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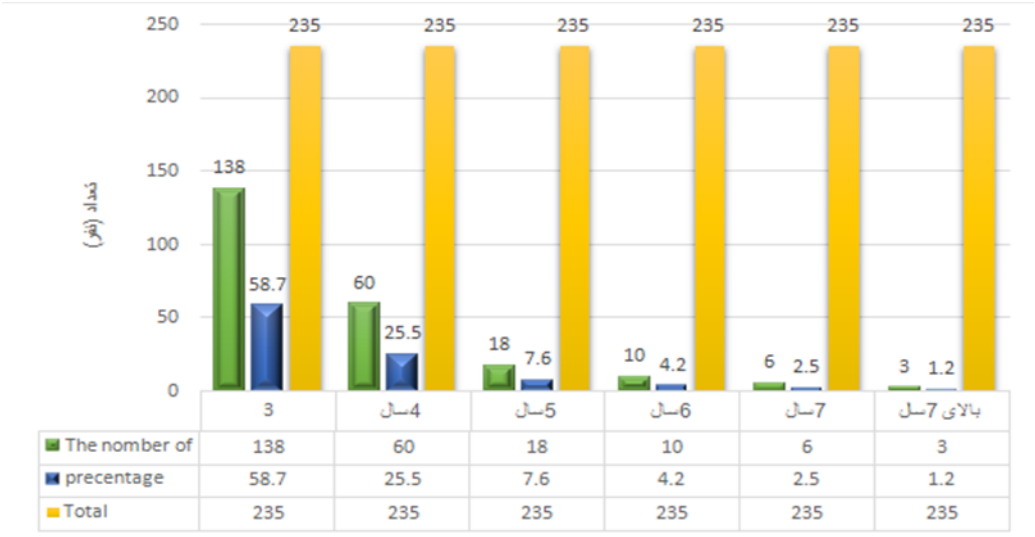
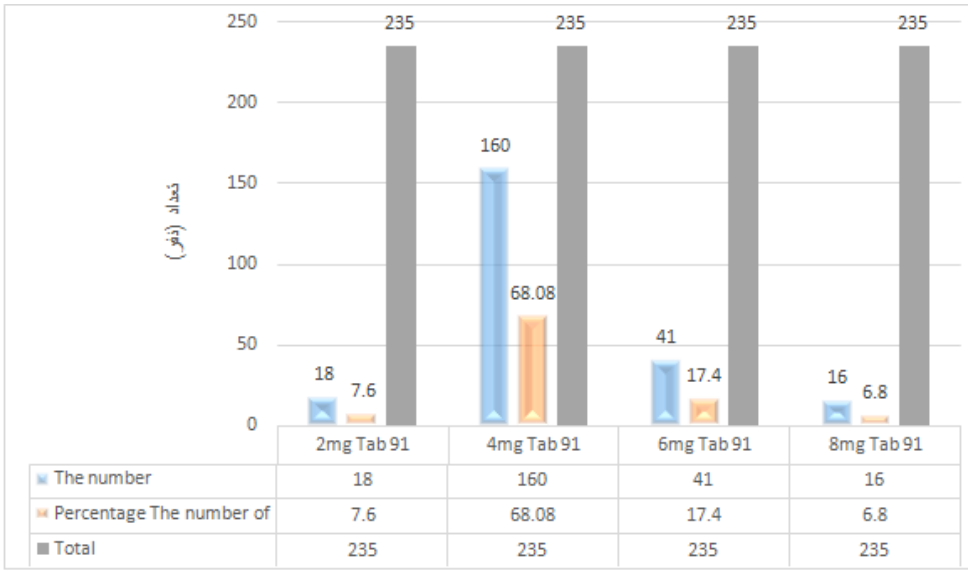
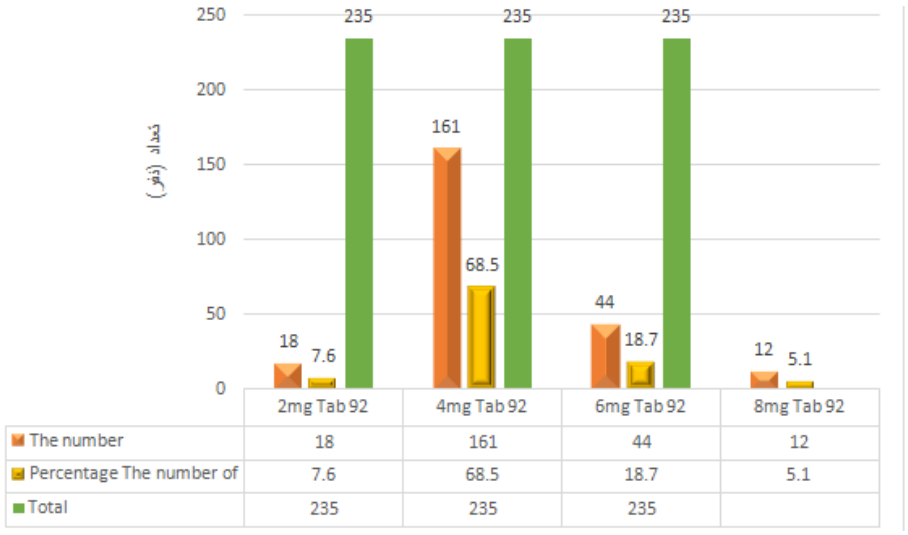


Figure 2: Dosage of Buprenorphin among addicted individuals to less than 3 mg of opium.





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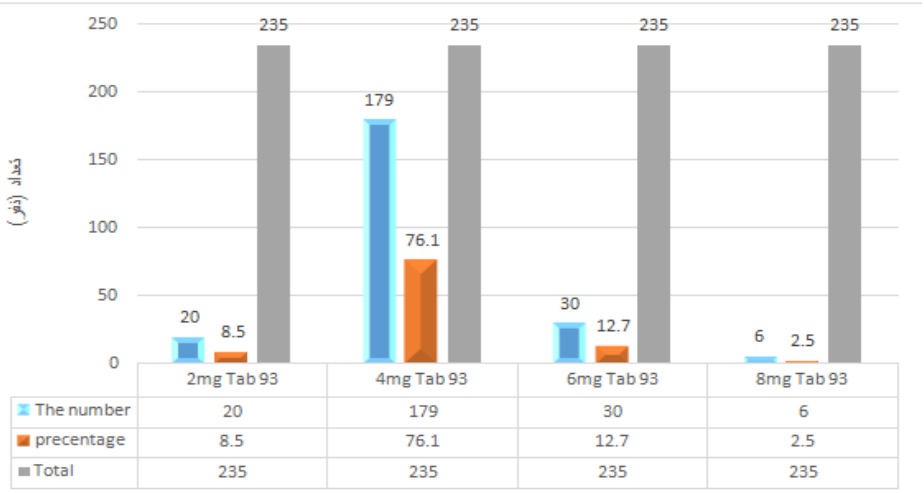
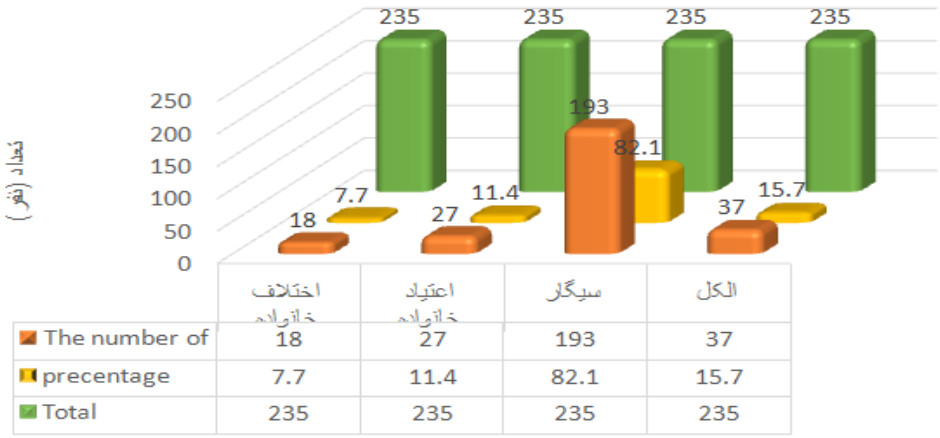


Figure 3: Effective factors in drug addiction.



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