



BUPRENORPHINE FOR THE DETOXIFICATION OF HEROIN DEPENDENCE

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Abstract: Background: Heroin abuse is a considerable problem. **Objective:** To illuminates the efficacy of a single dose of 66 mg of sublingual buprenorphine in the treatment of heroin dependence. **Results:** Administration of a single dose of 66 mg of buprenorphine is quite effective in the treatment of heroin dependence. **Discussion:** Our study clarifies that administration of a single dose of 66 mg of buprenorphine is quite effective in the management of heroin withdrawal symptoms. So, the present study might be a considerable addition to the literature. **Conclusion:** A single dose of sublingual buprenorphine could treat heroin withdrawal symptoms and be as effective as daily buprenorphine. We concluded that, a single dose of buprenorphine is much better than traditional methods, such as sudden cessation or stepwise reduction in the heroin dosage.

Key words: Buprenorphine; Heroin withdrawals

Introduction: Heroin is synthesized from opium and morphine. Opium has had a broad history of medical, social and recreational acceptance in some districts of the earth such as opium-producing zones of Asia since numerous centuries ago (1, 2). Opium which is a pure mu receptor agonist is produced from opium poppy. Buprenorphine is a synthetic product and partial

agonist of opioid mu receptor (3, 4).

It has been under extensive surveillance for the handling of opioid dependence since the late 1970s (4). Research studies in the management of opioid dependence, comparing buprenorphine with methadone, indicate that buprenorphine is more helpful and safer than methadone (5, 6, 7). Research workers such as Johnson, Jaffe, and Fudala expressed that buprenorphine 8 mg per day is equivalent to 60 mg of methadone looking upon retention rates and also opioids negative urine (8).

Buprenorphine is well absorbed after sublingual administration. It has less probability of overdose and physical dependence.

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Received on: May 2016

Accepted after revision: June 2016

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Buprenorphine decreases the incidence of HIV and other problems related to heroin dependence. (4, 9, 10, 11).

Medical and mental health dilemmas are boosting universally (12-29). Among psychiatric sicknesses, substance use disorders and substance related disorders especially opioids and stimulants produced problems have been defined as enigma. In recent years, opioids and stimulants related and induced mental illnesses have resulted in more drops-in to addiction centers (30-98).

In recent years in Iran patients with substance use disorders have gained more care, concern and consideration than the previous periods so that have motivated more attendance to substance abuse hospitals and centers (99-118). Currently, we are studying a single dose of 66 mg of buprenorphine for the reduction and cessation of heroin withdrawal symptoms especially craving.

The Food and Drug Administration (FDA) approved buprenorphine in the management of pain and heroin withdrawal symptoms (3).

Considering the DSM-5 criteria, principal investigator (Dr. Ahmadi) provide and composed a **reliable and valid** score (32-37 and 41-43) to rate and grade substance withdrawal craving and opioid withdrawal pain, including grades from 0 to 10 (0 means no pain or craving at all and 10 means severe pain or craving and temptation all the time).

Craving Scale of measurement: 0-1-2-3-4-5-6-7-8-9-10.

To the best of our knowledge there are not significant published reports on this matter, therefore, our experience could increase to the literature.

Patient disclosure

In the present study we are going to display a patient with heroin dependence that reacted successfully to 66 mg of buprenorphine as a single dose.

MS was a single 23 years old jobless with guidance school education. He inhabited with his family in the city of Noorabad of Fars province in Iran.

He began smoking tobacco and heroin at age of 18. MS stepwise developed anxiety, irritability, hopelessness, depressed mood and insomnia. Two weeks prior to the current admission his brother died, then his symptoms worsened and developed suicidal thoughts.

Due to depression, hypo activity, irritability, insomnia and suicidal thoughts he was admitted in psychiatric emergency room and then was transferred to psychiatric ward.

In psychiatric interview and mental status examination he was suicidal, depressed and irritable. In physical and neurological examinations we could not observe, any significant abnormal findings.

Urine drug screening tests were positive for morphine and buprenorphine only. Tests for viral markers (HIV, HCV and HB Ag) were normal.

Based on DSM-5 criteria and comprehensive medical, psychiatric, and substance use history MS was diagnosed as “opioid related depressive disorder, and opioid and tobacco use disorder.

Due to substance related disorders he had some hospital and addiction camp admissions in the past years.

In hospital admission, he received venlafaxine 75 mg, valproate 400 mg, and chlorpromazine 100 mg per day for the treatment of depression, irritability and insomnia.

In the fifth day of admission he complained of withdrawal pain and opioid craving, therefore, we administered buprenorphine 66 mg as a single dose only.

Based on close monitoring and interview (3 times a day) for heroin withdrawal pain and craving, he experienced a very low level of pain and craving after receiving of 66 mg of sublingual buprenorphine as a single dose only.

Ms was discharged without any significant heroin withdrawal symptoms after 12 days of hospital admission.

Discussion: It should be mentioned that in Iran opioids dependent patients are commonly detoxified and treated with clonidine, methadone and sometimes with buprenorphine.

Iranian drug policy declares that if an individual is observed to be utilizing illicit substances or

drugs, such as, opioids, hashish, marijuana, alcohol, ecstasy, methamphetamine, hallucinogens and cocaine, he/she must be directed to addiction treatment centers such as psychiatric hospitals or private clinics to be under treatment.

Our study makes clear that sublingual administration of 66 mg of buprenorphine as a single dose is quite effective in the management of heroin withdrawal symptoms. A single high dose of 66 mg of buprenorphine which has been administration for the first time in the literature, illuminated that one single high dose is as effective as daily administration of buprenorphine. Since single dose administration occurs for one episode only, therefore the possibility of buprenorphine dependence is very low in comparison to daily buprenorphine consumption. Hence the present report might be a considerable addition to the literature.

Conclusions: It can be resulted that a single dose of controlled trial of buprenorphine treatment for sublingual buprenorphine could treat heroin/opioid dependence. Journal of the American withdrawal symptoms at least for short time, and could be as effective as daily sublingual buprenorphine administration. *Journal of the American Medical Association*, 267, 2750–2755. (1992).

We concluded that, a single dose 66 mg of buprenorphine is much better than traditional methods such as sudden cessation or gradual reduction in the dosage of heroin smoking.

Acknowledgement: We were on our own.

Conflict of interests: None to be declared.

References:

1-Brian, J. Opium and infant-sedation in 19th century England, *Health Visitor*, 76, 165-166. (1994)

2-Jonnes, J. The rise of the modern addict, *American Journal of public Health*, 85, 1157-1162. (1995)

3-Sadock, B., Sadock, V., Ruiz. P. (Editors) Kaplan & Sadock's Synopsis of Psychiatry: Lippinott, Williams and Wilkins, Philadelphia (USA), 2015.

4- Jasinski, D. R., Pevnick, J. S., & Griffith, J. D. Human pharmacology and abuse potential of the analgesic buprenorphine: a potential agent for treating narcotic addiction. *Archives of General Psychiatry*, 35, 501–516. (1978).

5- Ling, W., Charuvastra, C., Collins, J. F., Batki, S., Brown, L. S. Jr., Kintaudi, P., Wesson, D. R., McNicholas, L., Tusel, D. J., Malkerneker, U., Renner, J. A. Jr., Santos, E., Casadonte, P., Fye, C., Stine, S., Wang, R. I., & Segal, D. (1998). Buprenorphine maintenance treatment of opiate dependence: a multicenter, randomized clinical trial. *Addiction*, 93, 475–486. (1998).

6- Ling, W., Rawson, R. A., & Compton, M. A. Substitution pharmacotherapies for opioid addiction: from methadone to LAAM and buprenorphine. *Journal of Psychoactive Drugs*, 26, 119–128. (1994)

7- Strain, E. C., Stitzer, M. L., Liebson, I. A., & Bigelow, G. E. Comparison of buprenorphine and methadone in the treatment of opioid dependence. *American Journal of Psychiatry*, 151, 1025–1030. (1994).

8- Johnson, R. E., Jaffe, J. H., & Fudala, P. J. A controlled trial of buprenorphine treatment for heroin dependence. *Journal of the American Medical Association*, 267, 2750–2755. (1992).

9- Lewis, J. W. Buprenorphine. *Drug and Alcohol Dependence*, 14, 363–372. (1985)

10- Jasinski, D. R., Fudala, P. J., & Johnson, R. E. Sublingual versus subcutaneous buprenorphine in opiate abusers. *Clinical Pharmacology and Therapeutics*, 45, 513–519. (1989).

11- Kolar, A. F., Brown, B. S., Waddington, W. W. & ball, J. c. A treatment crisis: cocaine use by clients in methadone maintenance programs. *Journal of substance abuse treatment*, 7, 101 – 107, 1990.

12- Ahmadi J, Kamel M, Ahmed MG, Bayoumi FA, Moneenum A. Mental Health of Dubai Medical College Students. *Iran J Psychiatry Behave Sci.*; 6(2): 79-83, 2012.

13- Ahmadi J, Kamel M, Ahmed MG, Bayoumi FA, Moneenum AA. Dubai Medical College students' scores on the Beck Depression Inventory. *Iranian Red Crescent Journal (IRCMJ)*. 10(3):169-172, 2008.

14- Pridmore S, McInerney G, Ahmadi, Rybak M. Enlarged Virchow-Robin spaces in a

- psychotic woman, *Journal of Psychiatric Intensive Care* 3: 49-54, 2007
- 15- Pridmore S, Robinson J, Ahmadi J. Suicide for scrutinizers. *Australas Psychiatry*. Jun; 15 (3): 247-8, 2007
- 16- Ghanizadeh A, Kianpoor M, Rezaei M, Rezaei H, Moini R, Aghakhani K, Ahmadi J, Moeini SR. Sleep patterns and habits in high school Students in Iran. *Ann Gen Psychiatry*. Mar 13; 7:5, 2008
- 17- Ghanizadeh A, Arkan N, Mohammadi MR, Ghanizadeh-Zarchi MA, Ahmadi J. Frequency of and barriers to utilization of mental health services in an Iranian population. *East Mediterr Health J*. Mar-Apr; 14(2):438-46, 2008
- 18- Pridmore S, Ahmadi J, Two cases of 'Type 3' suicide. *Australasian Psychiatry*. Vol 18, No 5: 426-430, 2010.
- 19- Pridmore S, Brüne M, Ahmadi J, Dale J. Echopraxia in schizophrenia: possible mechanisms. *Aust N Z J Psychiatry*, Jul; 42(7):565-71, 2008.
- 20- Pridmore S, Ahmadi J, Reddy A. Suicide in the absence of mental disorder. Working paper of public health., 6, 1-11, 2012
- 21- Pridmore S, Ahmadi J, Majeed ZA. Suicide in Old Norse and Finnish folk stories. *Australasian Psychiatry*. Vol 19, No 4:322-324, 2011.
- 22- Pridmore S, Ahmadi J, Usage of download of psychiatry by Muslim Countries. *Bulletin of clinical psychopharmacology*. , Vol 21, No 2: 174, 2011
- 23- Mani A, Dastgheib SA, Chanoor A, Khalili HA, Ahmadzadeh L, Ahmadi J, Sleep Quality among Patients with Mild Traumatic Brain Injury: A Cross-Sectional Study. *Bull Emerg Trauma*. 3(3): 93-96. 2015
- 24- Pridmore S, Ahmadi J; Psalm 137 and Middle Cerebral Artery Infarction; *ASEAN Journal of Psychiatry*, 16 (2). 2015;
- 25- Pridmore S, Ahmadi J. Book reviews. *Aust N Z J Psychiatry*, 39(3): 205-6, 2005.
- 26- Pridmore S, Ahmadi J, Evenhuis M. Suicide for scrutinizers. *Australas Psychiatry*. Dec; 14(4):359-64. 2006
- 27- Mackay-Smith M, Ahmadi J; Pridmore S, Suicide In Shooting Galleries *ASEAN Journal of Psychiatry*, Vol. 16 (1), January - June: 50-56, 2015
- 28- Ahmadi J, Ahmadi N, Soltani F, Bayat F. Gender differences in depression scores of Iranian and German medical students. *Iran J Psychiatry Behav Sci*; 8(4): 70-73, 2014
- 29- Gill D, Ahmadi J, Pridmore S, Suicide and Gambling on the Public Record. *MJP.*; 2 (1): 81-88, 2014
- 30- Khademalhosseini Z, Ahmadi J, Khademalhosseini M, Prevalence of Smoking, and its Relationship with Depression, and Anxiety in a Sample of Iranian High School Students. *Enliven: Pharmacovigil Drug Saf*. 1(1):005. , 2015
- 31- Ahmadi J, Sahraian A, Shariati S, Homicidal patient with major depressive disorder companion with opium dependence: A new arcade. *Int J Res Rep* 1(1):1-5, 2015.
- 32- Ahmadi, J. Heroin Dependency Treatment: A New Approach. *J Addict Depend* 1(2): 1-3. 2015.
- 33- Ahmadi J Hashish-Induced Olfactory Hallucination: A Novel Finding. *J Psychiatry*, 18:330. 2015; doi:10.4172/2378-5756.1000330
- 34- Ahmadi, J. Excellent Outcome of Psychosis Induced by Methamphetamine Intoxication after 20 Sessions of Electro Convulsive Therapy. *J Addict Depend* 1(2): 1- 2. 2015
- 35- Ahmadi J, Ekramzadeh S, Pridmore S, Remission of Methamphetamine-Induced Withdrawal Delirium and Craving after Electroconvulsive Therapy *Iran J Psychiatry Behav Sci*. December; 9(4):e1793. 2015
- 36- Ahmadi J, Sahraian A, Dastgheib SA, Moghimi E, Bazrafshan A, Treatment of heroin abuse. *Sch. Acad. J. Biosci.*; 3(11):966-968, 2015
- 37- Ahmadi J, Sahraian A, Dastgheib SA, Mani A, Mowla A, Ahmadzadeh L, ECT and methamphetamine psychosis: *IJMPS*. 2015; 7(1): 51-53

- 38- Ahmadi J Tramadol Dependency Treatment: A New Approach. *J Addict Med Ther Sci.*; 2(1): 001-03. 2015
- 39- Ahmadi J, Dehghanian I, Razeghian Jahromi L. Poly substance induced psychosis *Sch. J. App. Med. Sci.*, 3(7D):2693-2695, 2015;
- 40- Ahmadi J, Dehghanian I, Razeghian Jahromi L., Substance induced disorder. *Sch. J. App. Med. Sci.*, 3(7D):2700-2703, 2015;
- 41- Ahmadi J, Pridmore S, Ekramzadeh S, Successful Use Of Electro Convulsive Therapy in the Management of Methamphetamine Induced Psychosis with Onset During Intoxication. *J Addict & Depend*, 1, 1-3 , 2015;
- 42- Ahmadi J. The Effect of Buprenorphine and Bupropion in the Treatment of Methamphetamine Dependency and Craving. *Br J Med & Med Res*10 (2): 1-4, 2015
- 43- Ahmadi J, Sahraian A, Dastgheib SA, Mowla A, Ahmadzadeh L, Management of Methamphetamine-Induced Psychosis by 8 sessions of ECT *Sch. J. App. Med. Sci.*, 3 (3H):1565-1566. 2015
- 44- Ahmadi J, Amiri A, Ghanizadeh A, Khademalhosseini M, Khademalhosseini Z, Gholami Z et al . Prevalence of Addiction to the Internet, Computer Games, DVD, and Video and Its Relationship to Anxiety and Depression in a Sample of Iranian High School Students. *Iran J Psychiatry Behav Sci.* 8 (2):75-80, 2014;
- 45- Ahmadi J, Soltani F, Tabatabaee F, et al., Substance Use Disorders in Patients With Lung or Heart Diseases. *Sch. J. App. Med. Sci.*, 2(1A):111-120, 2014;
- 46- Ahmadi J, Sharifi M Lifetime and Current Prevalence of Tobacco Smoking. *J. Addict Res Ther* 4: 145. 2013. doi:10.4172/2155-6105.1000145
- 47- Ahmadi J, Ahmed MG. Dubai Medical College Students' Attitudes towards Substance Use. *J Addict Res Ther* (2013) S6: 005. doi:10.4172/2155-6105.S6-
- 48- Ahmadi J, Keshtkar M, Pridmore S. Methamphetamine Induced Synesthesia: A Case Report. *Am J Addict.* 20: 306. 2011;
- 49- Ahmadi J, Naghshvarian M, Afshari R. Opioid abuse in male population referred for mandatory Urine Opioid Screen before marriage in Shiraz-Iran. *Iranian J Psychiatry Behav Sci.* 5(2): 126-30. 2011;
- 50- Ahmadi J, Kampman K, Osline DM. et al, Predictors of Treatment Outcome in Outpatient Cocaine and Alcohol Dependence Treatment. *Am J Addict.* 18:81-86, 2009;
- 51- Ahmadi J, Benrazavi L, Babaebeigi M, Ghanizadeh A, Ghanizadeh M, Pridmore S. Substance use in a sample of medical patients. *J Psychoactive Drugs.* Sep; 40(3):315-9. 2008
- 52- Ahmadi J, Kampman K, Dackis C, Sparkman T, Pettinati H Cocaine withdrawal symptoms identify Type B cocaine-dependent patients. *Am J Addict.* 17 (1): 60-64. 2008;
- 53- Ahmadi J, Pridmore S, Alimi, A, et al., Epidemiology of Opium Use in the General Population. *Am. J. Drug and Alcohol Abuse*, 33: 483-491. 2007;
- 54- Ahmadi J, Kampman K, Dackis C. Outcome predictors in cocaine dependence treatment trials. *Am J Addict.* Nov-Dec; 15 (6):434-9. 2006
- 55- Tabei SZ, Heydari ST, Mehrabani D, Shamsina SJ, Ahmadi J, Firouzi SM Current substance use in patients with gastric cancer in Southern Iran. *J Can Res Ther* 2:182-185, 2006;
- 55- Ahmadi J, Fallahzadeh H, Salimi A, Rahimian M, Salehi V, Khaghani M, Babaebeigi M. Analysis of opium use by students of medical sciences. *J Clin Nurs.* 2006 Apr; 15(4):379-86.
- 56- Ahmadi J, Tabatabaee F, Gozin Z. Physical trauma and substance abuse: a comparative study on substance abuse in patients with physical trauma versus general population. *J Addict Dis.*; 25(1):51-63. 2006
- 57- Ahmadi, J., Ahmadi, M., Pridmore, S., et al., Substance Use Disorders in Rheumatic Patients. *German J Psychiatry.* 5 (8): 66-9. 2005;
- 58- Ahmadi, J., Menzies, P., Maany, I., et al., Pattern of cocaine and heroin abuse in a sample

- of Iranian general population. *German J Psychiatry*. 8 (1): 1-4. 2005
- 59- Ahmadi, J., Farrashbandi, H., Menzies, P et al., Prevalence of mood and anxiety disorders in a sample of Iranian outpatient opioid addicts. *German J Psychiatry*. 8 (1): 5-7. 2005.
- 60- Ahmadi, J., Farrashbandi, H., Majdi, B., et al., Substance-induced anxiety disorder in opioid dependents. *Addictive Disorders & Their Treatments*. 1-4, 2005.
- 61- Ahmadi, J., Babae-Beigi, M., Alishahi, M., Maany, I., Hidari, T. Twelve-month maintenance treatment of opium-dependent patients. *J Subst Abuse Treat*. 26(1): 363-366, 2004.
- 62- Ahmadi J, Babaebeigi M, Maany I, et al. Naltrexone for alcohol dependent patients *Irish J Med Science*, 173 (1): 34-37, 2004.
- 63- Ahmadi, J., Majdi, B., Mahdavi, S., Mohaghegh, M., Mood disorders in opioid dependent patients. *J.Affective Disorders*. 82: 139-42, 2004.
- 64- Ahmadi, J., Farrashbandi, H., Moosavinasab, M., et al., Treatment of heroin dependence. *German J Psychiatry*. 7 (2): 1-5. 2004.
- 65- Ahmadi, J., Pridmor, S., Fallahzadeh, M. Neurotic scores in medical students. *German J Psychiatry*. 7: 51-5. 2004.
- 66- Ahmadi, J., Maharlooy, N., Alishahi, M. Substance abuse: prevalence in a sample of nursing students. *J Clin Nurs*. 13(1): 60-4, 2004.
- 67-Ahmadi, J., Alavi, M., Alishahi, M. Substance Use Disorders in a Sample of Iranian Secondary School Students. *Social Indicators Research*, 65(3): 355-360, 2004.
- 68- Pridmore, S., Skerit, P., Ahmadi, J. Why do doctors dislike treating people with somatoform disorder? *Australasian Psychiatry*. 12 (2): 134 -138, 2004.
- 69- Ahmadi, J., Toobae, S., Alishahi, M. Depression in nursing students. *J Clin Nurs*. 13(1): 124. 2004.
- 70- Ahmadi, J., Ahmadi, K., Ohaeri, J. Controlled, randomized trial in maintenance treatment of intravenous buprenorphine dependence with naltrexone, methadone or buprenorphine: a novel study. *Eur J Clin Invest*. Sep; 33(9): 824-9, 2003.
- 71- Ahmadi, J. Methadone versus buprenorphine maintenance for the treatment of heroin-dependent outpatients. *J Subst Abuse Treat*. Apr; 24(3): 217-20, 2003.
- 72- Ahmadi, J., Toobae, S., Kharras, M., Radmehr, M. Psychiatric disorders in opioid dependants. *Int J Soc Psychiatry*. Sep; 49(3): 185-91, 2003.
- 73- Ahmadi, J, Etminan, H., Javanmardi, H. Reasons for cessation of opiate use among Iranian opioids dependants. *Addictive Disorders & Their Treatment*. 2(1): 9-12, 2003.
- 74- Ahmadi, J., Rayisi, T., Alishahi, M. Analysis of substance use by primary school students. *German J Psychiatry*, 3:56-59, 2003.
- 75- Ahmadi, J., Ashkani, H., Ahmadi, M., Ahmadi, N. Twenty-four week maintenance treatment of cigarette smoking with nicotine gum, clonidine and naltrexone. *J Subst Abuse Treat*. Apr; 24(3): 251-5, 2003.
- 76- Ahmadi, J., Ahmadi, M., Twelve-month maintenance treatment of heroin- dependent outpatients with buprenorphine. *J Subst Use*. April 8(1): 39-41, 2003.
- 77- Ahmadi, J., Sharifi, M. Cannabis abuse in Iran. *Irish J Med Sci*. Jan-Mar; 172(1): 46, 2003.
- 78- Ahmadi, J., Arabi, H., Mansouri, Y. Prevalence of substance use among offspring of opioid addicts. *Addict Behav*. Apr; 28(3): 591-5, 2003.
- 79- Ahmadi, J., Motamed, F. Treatment success rate among Iranian opioid dependents. *Subst Use Misuse*. Jan; 38(1): 151-63, 2003.
- 80- Ahmadi, J., Hasani, M. Prevalence of substance use among Iranian high school students. *Addict Behav*. Mar; 28(2): 375-9, 2003.
- 81-Ahmadi, J., Maany, I., Ahmadi, M. Treatment of Intravenous Buprenorphine Dependence: A Randomized Open Clinical Trial. *German J Psychiatry* 6:23-29, 2003.
- 82- Ahmadi, J., Javadpour, A. Assessing substance use among Iranian health care

- students. *European J Psychiatry* 16(3): 174-177, 2002.
- 83- Ahmadi, J., Bahrami, N. Buprenorphine treatment of opium-dependent outpatients seeking treatment in Iran. *J Subst Abuse Treat.* Dec; 23(4): 415-7, 2002.
- 84- Ahmadi, J., Samavatt, F., Sayyad, M., Ghanizadeh, A. Various types of exercise and scores on the Beck Depression Inventory. *Psychol Rep.* Jun; 90(3 Pt 1): 821-2, 2002.
- 85- Ahmadi, J., Yazdanfar, F. Substance use among Iranian university students. *The International Journal of Drug Policy.* 13(6): 507-508, 2002.
- 86- Ahmadi, J. A randomized, clinical trial of buprenorphine maintenance treatment for Iranian patients with opioid dependency. *Addictive Disorders & Their Treatments.* 1(1): 24-27, 2002.
- 87- Ahmadi, J., Benrazavi, L. Substance use among Iranian physical patients. *The International Journal of Drug Policy.* 13(6): 505-506, 2002.
- 88- Ahmadi, J., Ostovan, M. Substance use among Iranian male students. *The International Journal of Drug Policy.* 13(6): 511-512, 2002.
- 89- Ahmadi, J. Buprenorphine maintenance treatment of heroin dependence: the first experience from Iran. *J Subst Abuse Treat.* Apr; 22(3): 157-9, 2002.
- 90- Ahmadi, J., Benrazavi, L. Substance use among Iranian nephrologic patients. *Am J Nephrol.* Jan-Feb; 22(1):11-3, 2002.
- 91- Ahmadi, J., Ahmadi, N. A Double Blind Placebo-Controlled Study of Naltrexone in the Treatment of Alcohol Dependence. *German J Psychiatry* 2002; 5(4): 85-9, 2002.
- 92- Ahmadi, J., Benrazavi, L. Substance use among Iranian surgical patients. *The International Journal of Drug Policy* 13(6) 509-510, 2002.
- 93- Ahmadi, J. A controlled trial of buprenorphine treatment for opium dependence: the first experience from Iran. *Drug Alcohol Depend.* Apr 1; 66(2): 111-4, 2002.
- 94- Ahmadi, J., Benrazavi, L. Substance use among Iranian cardiovascular patients. *Eur J Med Res.* Feb 21; 7(2): 89-92, 2002.
- 95- Ahmadi, J., Benrazavi, L., Ghanizadeh, A. Substance abuse among contemporary Iranian medical students and medical patients. *J Nerv Ment Dis.* Dec; 189(12): 860-1, 2001.
- 96- Ahmadi, J., Fakoor, A., Pezeshkian, P., Khoshnood, R., Malekpour, A. Substance use among Iranian psychiatric inpatients. *Psychol Rep.* Oct; 89(2): 363-5, 2001.
- 97- Ahmadi, J., Khalili, H., Jooybar, R., Namazi, N., Mohammadagaei, P. Prevalence of cigarette smoking in Iran. *Psychol Rep.* Oct; 89(2): 339-41, 2001.
- 98- Ahmadi, J., Ghanizadeh, A. Current substance use among Iranian medical students. *Indian J Psychiatry.* 43(2): 157-161, 2001.
- 99- Ghanizadeh, A., Ahmadi, J. The MMPI Profile of Opiate Addicts of Iran: Evidence from Shiraz. *Annals of Saudi Medicine* 20, 3-4:334-5, 2000.
- 100- Ahmadi, J., Ghanizadeh, A. Motivations for use of opiates among addicts seeking treatment in Shiraz. *Psychol Rep.* Dec; 87(3 Pt 2): 1158-64, 2000.
- 101- Ahmadi, J., Khalili, H., Jooybar, R., Namazi, N., Aghaei, P.M. Cigarette smoking among Iranian medical students, resident physicians and attending physicians. *Eur J Med Res.* Sep 28; 6(9): 406-8, 2001.
- 102- Ahmadi, J., Ahmadi, M., Pridmore, S., et al., Substance Use Disorders in Rheumatic Patients. *German J Psychiatry.* 5 (8): 66-9. 2005;
- 103- Anvar M, Ahmadi J, Hamidian S, Ghafaripour S Female Sexual Dysfunction Among the Wives of Opioid-Dependent Males in Iran *Int J High Risk Behav Addict.* March; 5(1): 2016 e25435.
- 104- Ahmadi J, Sahraian A, Shariati S, Delusional disorder joined with opium dependence *Sch. J. App. Med. Sci.,* 3(9D):3387-3390, 2015;
- 105- Ahmadi J, Dastgheib SA, Mowla A, Ahmadzadeh L, Bazrafshan A, Moghimi Sarani EM, Treatment of Methamphetamine Induced

- Persistent Psychosis. *J Add Pre Med* 1(1): 103. (2016)
- 106- Ahmadi J (2016) Misuse of tablets of ephedrine, adult cold and cold stop to get high: A distinguished enigma. *Int J Res Rep* 2(2):30-35. 2016;
- 107- Ahmadi J, Methylphenidate in the treatment of methamphetamine withdrawal Craving: a novel outcome. *J Drug Abuse*. Vol. 2, No. 1: 12, 2016;
- 108- Ahmadi J, Ghafoori F, Rahimi S, Management of heroin addiction with baclofen and clonidine. *Int J Res Rep*; 1(1):6-10. 2015
- 109- Ang-Lee K, Oreskovich MR, Saxon AJ, Jaffe C, Meredith C, Ellis ML, Malte CA, Knox PC, Single dose of 24 milligrams of buprenorphine for heroin detoxification: an open-label study of five inpatients, *J Psychoactive Drugs*, Dec; 38(4): 505-12, 2006.
- 110- Kutz I, Reznik V. Rapid heroin detoxification using a single high dose of buprenorphine. *J Psychoactive Drugs*. 2001 Apr-June; 33(2):191-3
- 111- Ahmadi J, Khoddaman AR, Kordian S, Pridmore S. Treatment of an obese opioid dependent with a single dose of 80 mg of buprenorphine: a new opening. *Int J Res Rep* 2(1):11-18. 2016;
- 112- Ahmadi J, Ahmadi F, Torabi A, Ahmadi S, Ahmadi F. A single dose of 55 mg of buprenorphine for the treatment of heroin dependence: a new result. *J Haminiz Med Res and Hlth Sci* 3(1): 1-7. 2016;
- 113- Ahmadi J. Instant Detoxification of Heroin with High Dose of Buprenorphine. *J Addiction Prevention*. 4(1): 3. 2016
- 114- Ahmadi J, Sarani EM, Jahromi MS, Pridmore S. Treatment of heroin dependence with 40 mg of buprenorphine: a novel passageway. *Int J Original Res*; 2(2): 68-73. 2016
- 115-Ahmadi J. Non-opioid drugs in the management of tramadol dependence: A novel approach. *Int J Original Res* 2(2):40-45. 2016;
- 116- Ahmadi J, Ahmadi F, Ahmadi F, Ahmadi S, Pridmore S. A firsthand launch: Heroin dependence treatment with a single dose of 48 mg of buprenorphine. *Landmark Res. J. Med. Med. Sci February Vol 3(2): 019-022*. 2016;
- 117- Ahmadi J. Combination of analgesics (NSAIDS), baclofen, clonidine and a single dose of buprenorphine for heroin detoxification, *International Journal of Pharma Sciences and Research (IJPSR)*. Feb; Vol 7. No 02: 92-96, 2016
- 118-Ahmadi J) Fast Treatment of Methamphetamine Related Anxiety and Depressive Disorders: A Novel Approach. *J Addict Med Ther Sci* 1(2): 044-046. 2016. DOI: 10.17352/2455-3484.000011.