

Abstract

Objective: The present research aimed at investigating the efficiency of interventions of compulsory addiction treatment.

Method: The present study is descriptive and is considered as a systematic review or structured review based on its methodology. The statistical population of the study covers all research papers, studies, projects, and reports in Persian and English with regard to the evaluation and findings of compulsory treatment among substance abusers published from 2000 to 2015.

Results: After reviewing the studies in databases, the number of eleven papers meeting the inclusive criteria was selected, 54.5% of which were from the U.S.A. These pieces of research indicated that the clients under compulsory treatment experienced more inappropriate conditions. A few of the studies reported that compulsory treatment improved physical and mental health and overall general health of the clients. **Conclusion:** The studies under review indicated that voluntary treatment had a better outcome than compulsory treatment, although it is recommended that more research be conducted with more appropriate methodologies for reliable decision-making.

Keywords: compulsory treatment, systematic review, addicts

Systematic Review on the Effectiveness of Compulsory Treatment Interventions in Addicts

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Introduction

Legal coercion has been a common method for influencing the treatment of drug users who do not want to be treated (Perron, & Bright, 2008). In the early eighteenth century, many psychiatrists recognized self-harm symptoms as an adequate measure for compulsory treatment. In the nineteenth century, the general idea of the substance subject became clear and affected mental health policies. At that time, the dominant view of the moral weakness of addiction was changed to madness and insanity. In 1914, Harrison's law was passed in the United States. The law required heroin addicts to be arrested and receive treatment. The first center for implementing this policy was established in Kentucky in 1935. The second center was launched in Texas three years later. The purpose of the facility was to provide an opportunity for professional therapists to treat and rehabilitate drug users (Sullivan, 2008).

About 30 years later, in the early 1960s, due to the expansion of the number of heroin users, the state of California implemented the first formal civil commitment program for heroin addicts in 1962. The civil commitment program allowed addicts enter voluntary treatment (without the involvement of the judicial system) , and for drug addicts who were reluctant to treatment, family-satisfaction treatment, or official institutions that confirmed that there was imminent risk of harm to the addict himself or his relatives (Sullivan, 2008). Evidence suggests that in the last 25 years the tendency towards compulsory treatment of drug abuse has been slow but increasing (Israelsson, & Gerdner, 2012). Compulsory drug treatment approaches are implemented in South Asia (Amon, Pearshouse, Cohen, & Schleifer, 2013), the Russian Federation (Utyasheva, 2007), North America (rengifo, & Stemen, 2013), Latin America (Malta, & Beyrer, 2013), the United States and Australia (Broadstock, 2008), Europe (Jansson, Hesse, & Fridell, 2008) and other countries (Ferri, Davoli, & Perucci, 2011).

The study of the discussions and disputes over the agreement or disagreement on compulsory treatment of drug users has continued for decades (Stivens, 2005). One of the main issues of opposition to compulsory treatment has been the issue of civil liberty and human rights. Some also believe that ignoring individual satisfaction leads to his/her resistance to treatment (Marlowe et al., 1996; Wild, Cunningham, & Ryan, 2006; Pritchard et al., 2007). Also, professional organizations such as the social workers association emphasize the importance of self-determination (Paron and Bryt, 2008). Another group discusses the inability of people with chronic illness (drug users) to care for their benefits (Caplan, 2006; Goldsmith & Latessa, 2001). On the other hand, coercion has been considered as a legal solution to the community security problem (Klag et al., 2005).

On the other hand, some proponents of compulsory treatment argue that governments should use compulsory treatment for general welfare and social

health (Abadinsky, 2005). The US office of national drug control policy, besides reducing drug use, provides other services, including crime reduction, reduction of domestic violence, reducing the risk of HIV infection, making positive changes in values and social networks, and increasing working days for treatment. (Glantz, & Hartel, 2007). According to NIDA, the criminal justice system and treatment systems can work together to optimize resources for the benefit of health, security, and welfare of individuals and communities (NIDA, 2014).

In Iran, after the revolution, the anti-drug approach intensified. From the very first days after the revolution, the laws and regulations on prohibiting drug addiction and substance abuse were gradually issued and even the heroin addiction withdrawal was obligatory and its use was forbidden (Madani Qahfarhi, 2011). Over the past three decades, addicts' arrest, exile addicts to island, implementation of various plans with different titles, "police –oriented treatment", "rescue plan", "plan to increase social security with the approach of collecting high-risk drug addicts", preliminary implementation of the treatment-oriented court for drug addicts and keeping addicts in government centers have shown that the "coercion" component has always played a crucial role in different policies and programs of treatment for addiction in the country (Moghani Bashi Mansourieh, 2015). In Iran, with the increasing prevalence of substance abuse in the country during the last decade (Nouri et al., 2008), beside a sharp drop in the quality of life of drug addicts affected by economic sanctions (Dailimizadeh and Osimi Zadeh, 2015) caused that policy makers, authorities and security force collect addicts continually from the streets and vulnerable townships of the city to cope up with a large amount of addicts and with the dissatisfaction of people, the police constantly collect the addicts from the level of the streets and the damaging neighborhoods (Rahimi-Movaghar et al., 2011).

According to official statistics, there were 18 compulsory drug treatment centers by 2013(called Article 16) in the country, and during the 2011 to 2013, about 50,000 drug users were kept in these centers (Barati Sadeh, 2014). although the failure to provide social support services, especially social worker services to patients and their families has challenged the success of these interventions (Rahimi-Movaghar et al., 2011; MoghanibashiMansouria, 2015).

The use of coercion is not always successful, but it is used in all complex societies (Sekhavat, 2006). Compulsory treatment of drug users has been supported by the criminal justice system (Anglin, 1998) with the view that this action can reduce offenses. Regarding the relationship between drugs and crime, three models have been proposed: A) Drugs use is the cause of crime. This model has been considered more than the other two models. One of the approaches that supports this model is the economic need approach. This approach suggests that drug users are in fact "drugs slaves", and as a result, drug users have no choice but to commit crime to get drugs (Hammersley et al., 1989). B) Crime is the cause of substance use. Based on this, it is believed that treatment should be

aimed at reducing the crime, and the problem of drugs will decrease. Subcultural theories fall into this category. C) Crime and substance abuse have a common ancestor. In this model, it is assumed that crime and drugs abuse originate from a common ground. Specifically, emphasis on the disruptive lifestyle with the absence of social support systems, school problems, membership in deviant groups, etc. is presented (Hamersley et al., 1989).

There are several methods for coercion, stimulation, or any form of treatment that drug users receive. Wilde et al. (2006) divide these external pressures or social control strategies into three broad categories based on their source. The first category is legal pressure including civil commitment, court-ordered treatment and programs that use a therapeutic approach rather than a judicial approach such as drug treatment courts. The second category is the formal and non-legal pressure; the pressures imposed by non-legal institutes or systems, such as referring to compulsory treatment by employers, schools, social support programs, or child support. The third category consists of informal social pressures. These pressures are usually carried out in interpersonal forms, for example, we can refer to threats or ultimatums from a family or friends to a drug user.

Self-deterministic theory refers to the perception of social events (court order, arrest, parental pressure, wife's threat, etc.) and investigates their impact on motivation processes. This theory identifies the motivation for carrying out different activities in the continuum of activities that are completely started and controlled by external social coercions to activities that are entirely performed by one's own decision. According to this theory, autonomy, relatedness and competence are the basic psychosocial needs of individuals (Deci, & Ryan, 2002). Autonomy refers to the need of individuals to be free to do the desired activities, as well as the desire for being skillful in activities. Competence refers to the need for individuals to be skillful and effective in their interactions with the environment, and the relatedness refers to individuals' willingness to have an interpersonal interaction and a sense of attachment to a particular social context (Kowal & Fortier, 1999).

Based on this theory, when social events increase feelings of control and coercion, intrinsic motivation (e.g., interest and engagement in activities) decreases. On the contrary, when social events increase the sense of support for independence and autonomy, intrinsic motivation increases toward doing activities (Deci & Ryan, 2002). This theory defines extrinsic motivation in relation to individual beliefs, as the person who consumes substance goes to treatment because social events have requested him or forced him to seek help. They are Also, based on this theory, the intrinsic motivation refers to the incompatibilities (for example, feelings of blame and anxiety) regarding the decision of treatment. In addition, identity motivation occurs when the clients personally identify the goals of the treatment, commit themselves to these goals, and choose seeking help.

In our country, there has been little research on the effectiveness and efficiency of compulsory treatment of drug users. However, in other countries, including the United States and European countries, the comprehensive study of the effectiveness and strength and weak points of compulsory treatment of substance users has been a major issue (Regine, 2008). To this end and in view of the increasing use of compulsory treatment in the country, the purpose of this study is to study compulsory treatment of various aspects and research reports about the efficiency and effectiveness of this therapeutic approach.

Method

Population, sample and sampling method

The present study is descriptive and is considered as a systematic review or structured review based on its methodology. A review of literature is done in a variety of ways, one of the most well-known of which is a systematic review that is a kind of secondary study and analysis of previous studies. In other words, systematic review is a structured search that is done according to predetermined rules and regulations. The statistical population of the study covers all research papers, studies, projects, and reports in Persian and English with regard to the evaluation and findings of compulsory treatment among substance abusers published from 2000 to 2015. The strategies used were including: a. Search strategy in Persian sources: Keywords of compulsory treatment of addicts, court-based treatment of drug abusers, non-voluntary treatment of addicts in title, abstract and key words of papers were searched in scientific bases of Magiran, Google scholar, Sid, Noormags, and irandoc. B. Search strategy in non-Persian sources: Given that compulsory treatment is used in different titles, various key words such as compulsory Drug Treatment, Mandatory treatment, Semi-Compulsory treatment Coercive Drug treatment, obligatory treatment, volunteer treatment, Court base drug treatment, civil commitment base treatment were searched at the PubMed, sciensdirect, wiely, Google scholar, SAMHSA and NIDA databases. The inclusion criteria of the present study were the papers evaluating the results of compulsory treatment of drug users between 2000 and 2015. The exclusion criterion was the review methodology and the documents method.

Findings

Although many studies have been published in terms of various aspects of addiction compulsory treatment, few studies have examined the effectiveness of this type of treatment. Thus, a total of 294 results were obtained from searches related to the topic of study in scientific sources. After the study of the abstract, the main vocabularies of the articles and the year of their publication, 34 papers were selected for review, two of which were related to Iran. After a complete study of the articles, eleven studies that met the inclusion criteria were selected and the results were entered into the study.

The first study was conducted by Guydish (2002) from the United States. The sample size was 618 in a causal-comparative design. The study population consisted of two experimental groups (participants in the treatment of drug court) and control (non-participants). The results of the study showed that there were no significant differences in re-arrest rates between the participant and non-participant groups. The second study was conducted by Brecht, Anglin, & Dylan (2005) in the United States. The study design was longitudinal and sample size was 350. The study population was consisting methamphetamine users admitted to the public health system of the state of California. Sampling was done randomly.

The data were collected from the patients using a natural history interview. Outcomes (treatment completion, relapse within 6 months, and percentage of days with methamphetamine use in 2 years following treatment) did not differ significantly in simple comparisons between the pressured and non-pressured groups. The third study was done by the Copeland & Maxwell (2007) in the United States. This study is a retrospective audit with 27,198 adults. The study population is clinical fields of those presenting to public Texas treatment programs with cannabis problems between 2000 and 2005. The results showed that of those legally coerced into treatment were also more likely to have not used cannabis in the month prior to 90-day post-treatment follow-up.

The fourth study was conducted by Burdon et al. (2007) in the United States. This is a causal-comparative study. Subjects were 4,165 male and female parolees who received prison-based therapeutic community substance abuse treatment and who subsequently participated in only outpatient or only residential treatment following release from prison. There was no significant relationship between returning to prison and type of compulsory treatment (outpatient with methadone and residential compulsory treatment). There was no significant relationship between drug and alcohol use and type of compulsory treatment (outpatient with methadone and residential compulsory treatment), but this case was less for outpatient parolees.

The fifth study was conducted by Easton, Babuscio, & Carroll (2007) in the United States, in a clinical trial with 243 samples. The review was based on two groups being referred to treatment by a court official and volunteer treatment. There was a significant difference between two groups in terms of antisocial personality disorder; alcohol dependency history, number of arrests and criminal involvement and in all these cases, the higher level was dedicated to the patients receiving compulsory treatment. The education level, occupations were significantly lower in this group. There was no significant difference between the mean of substance use, age mean, race, marital status, gender, cocaine use, years of regular drug use, history of substance abuse or psychiatric treatment, depression and anxiety disorder between two groups. During the treatment period, there was no significant difference in terms of readiness to treatment. There was also no significant difference between the number of arrests during

the treatment period and cocaine and alcohol use in two groups. There was no significant difference between two groups in treatment period in terms of clean days, percentage of cocaine and alcohol use, days of employment, days abstinent from cocaine and alcohol use and the average dispute with family. In a one-year follow up, there was no significant difference in the mean of days of substance use, alcohol and the days in prison. There was a significant difference in terms of the number of arrest; as it was lower among the volunteer treatment group. However, when antisocial personality disorder was utilized as a covariate in the analysis, there was no significant difference. Generally, there was no significant difference in the process and results of treatment.

The sixth study was conducted by Peron and Bright (2008) in America. The study was a descriptive cross-section design with 3306 samples. The purpose of the study was to examine the influence of legal coercion on drop out from substance abuse treatment. To cope up with the limitations of the previous researches, this study applied the data from the National Treatment Improvement Evaluation Study (NTIES). 986 individuals received short-term residential, 881 long-term residential, and 1439 outpatient treatment as the sample of study. There was a significant difference in drugs between the legally coerced treatment group (short term treatment) and voluntary treatment as it was lower in coerced treatment. This difference with outpatient coerced treatment was not significant. There was a significant difference between coerced treatment and reduced dropout from treatment. This relationship in short-term treatment was higher than that of long-term coerced treatment (hospitalized more than two months) and outpatient. Significantly, the highest dropout from the coerced treatment was dedicated to outpatient treatment. There was a significant association between service matching and reduced dropout from treatment. However, as there are no more details, it is difficult to imagine a causal relationship between these two variables. It can be said that a person who knows that the treatment meets his demands, has more reasons to continue it. There was a clear difference between the influence of short-term treatment (staying in treatment below two months) with other methods (long-term and outpatient). Probably, this is due to the course period and course completion as it is easier in the short-time treatment and in hospitalization, the course is not completed.

The seventh study was conducted by Schaub et al. (2009) in the UK, Italy, Australia, Germany and Switzerland, a trend study of 845 samples. The study population of this study was divided into two groups of voluntarily treatment (control group) and compulsory treatment (test group). For data collection, the modified version of the European Addiction Severity Index was used. Before entering the treatment, the level of education, receiving medical care and excessive consumption of alcohol in the compulsory treatment group was significantly lower. The rate of homelessness, violent crimes, age of use of crack, duration of outpatient treatment and years of unemployment were significantly higher in the compulsory treatment group compared to the control group. After

the therapy intervention, there was a significant decrease in the drug use of the two groups. It should be noted that this reduction in the compulsory treatment group was slightly higher. Also, the highest reduction in drug use was related to the first six months of treatment. The reduction in committed crime in both groups was significant. In this item, a higher reduction was observed in the compulsory treatment group. Relative improvement was occurred in the general health status of participants in both groups. Improving the general health of the compulsory group was higher. There was no significant difference in employment, self-efficacy and mental health of the two groups in relation to the onset of the period. There was a significant difference in the arrest of the two groups. People who voluntarily entered treatment were less arrested. This issue does not relate to the type of treatment, and it refers to the history of crime and the background of individuals. There was no significant difference in survival rates in treatment of the two groups.

The eighth study was conducted by Dekker, O'Brien, & Smith (2010) in Australia, a clinical trial with 106 samples. The study population was offenders who referred to the Court 1st August 2006 and 31st July. Considerable improvement in mental and physical health of people was reported. The mental health of those coerced to treatment had significant difference with the beginning of treatment. After one year of treatment, this difference was not significant but at the end of follow up period (about three years), there was a significant improvement in mental health of the participants. There was a considerable and significant improvement in physical health of the participants in compulsory treatment. These changes were significant both at the end of first phase and at the end of follow up. The positive reaction to participation in treatment in the in-prison phase and beginning of treatment had significant difference. This difference was the same at the end of the first year of treatment. However, there was no significant difference in the follow up of the end of phase. There was a significant difference in preparation for treatment of participants before and after treatment. Their preparation for treatment was increased. However, based on compulsory treatment at the beginning of treatment, satisfaction was not possible but at the end of first phase (the first year of treatment) and follow up (about three years), there was no significant difference in the degree of treatment satisfaction. However, there was a considerable increase in positive responses to the question "Do you feel, this treatment (compulsory) is helpful for you? But the changes were not significant statistically. The positive responses to the question "Do you feel you need help to keep from going back to using drugs?" was considerably and significantly increased. The significance reduction (at the level 1%) in response to the question "Do you think you need help to keep you from taking part in further criminal acts or behavior?"

At the end of the first and second phase, 83 and 79% of the participants, respectively were satisfied with the completion of the mentioned stage. 77 and

84% of participants at the end of first and second phase stated that they can well cope up with the surrounding community.

The ninth study was conducted by Jarney, Toson, & Dolan (2012) in Australia, a longitudinal study with 375 sample individuals. The study population consisted of: male heroin users in 1996-1997 at the New South Wales prisons in Australia. There was no significant relationship between receiving compulsory treatment with alternative opioid treatment and the time of release, the risk of arrest and re-arrest. However, staying in post-release treatment reduces the risk of re-imprisonment by 20%. 90% of prisoners who undergone compulsory treatment (alternative opioid treatment) had a history of returning to prison.

The tenth study was conducted by Fairbairn et al. (2015) in Thailand, a descriptive cross-sectional study with 422 subjects. The study population was drugs injectors in Bangkok, Thailand in 2011. Imprisonment; Voluntary drugs treatment; midazolam injection; the first injection were significantly associated with injection stop period of more than one year. Exposure to compulsory treatment had positive association and methadone treatment had negative association with short-term stopping of injection

The eleventh study was carried out by Rahimi Movghar et al. (2011a), a quantitative- qualitative study with 79 samples. Two-month follow-up results showed that of 79 addicts, one died and one was sent to the hospital and did not return. A total of 16 people still resided in Shafagh center. There was no information of 10 individuals after the discharge. A total of 51 remaining were referred to eight state methadone treatment centers. Six-month follow-up results showed that 23.5% of the 51 subjects treated with methadone continued their treatment. Of the 16 people residing in the Shafagh center, 12 individuals were still at the center. Of the 4 people discharged, 2 were treated with methadone.

Discussion and Conclusion

In an international study, it was found that 69 of the 109 countries had legal access to compulsory treatment for addicts in their law (Israelsson, & Gerdner, 2012). Addressing the issue of compulsory treatment of addicts due to interference with ethical, therapeutic, citizenship and urban management issues, as well as its increasing use over the past decade in Southwest Asia, especially in Iran, has been of great importance. I have enjoyed it. Some research studies consider the scope of compulsory treatment to be feasible, along with political challenges and they believe that it is necessary that science and politics negotiates together (Vuong, 2017). The researches in this study include a wide range of variables. Some studies regarding the patient's demographic variables have raised some issues. A research done by Aston et al. (2007) showed that There was a significant difference between two groups in terms of antisocial personality disorder; alcohol dependency history, number of arrests and criminal involvement and in all these cases, the higher level was dedicated to the patients

receiving compulsory treatment. Also, in this study, there was no significant difference between the mean of substance use, age mean, race, marital status, gender, cocaine use, years of regular drug use, history of substance abuse or psychiatric treatment, depression and anxiety disorder between two groups. In a study by Raheemi Movaghar et al. (2011), the high risk of infectious diseases of AIDS and hepatitis was mentioned.

In another study, education, medical care, and excessive consumption of alcohol were significantly lower in the compulsory treatment group. The rate of homelessness, violent crimes, age of use of crack, duration of outpatient treatment and years of unemployment were significantly higher in the compulsory treatment group compared to the control group (Schaub et al., 2009). In sum, evidence suggests that patients with compulsory treatment have had more inappropriate conditions. According to the studies, a few reported a significant improvement in the physical and mental health and general health in compulsory treatment (Decker et al., 2010; Schaub et al., 2010). A number of studies reported no significant difference between the dropout from treatment before the end of the treatment period with the treatment type (compulsory or voluntary) (Brecht et al., 2005; Schaub et al., 2010). Of course, in one of the studies, the highest amount of dropout from treatment was related to compulsory outpatient treatment (Perron, & Bright, 2008).

Among the conducted studies, three studies evaluated relapse variable. In Brecht et al. (2005) research, there was no significant difference in relapse to 6 months after dropout from treatment between voluntarily treated patients and those who receive compulsory treatment. This has been reported in the study by Stone et al. (2007) and Schaub et al. (2010), and other variables seem to be effective on the amount of relapse, and they can be effective even with compulsory treatment. These findings are in line with the results of the review study of Werb et al. (2016).

Another variable that a number of studies have focused on was the re-arrest of addicts after treatment. Only one study in a one-year follow-up showed a significant reduction in re-arrest among voluntary treatment (Stone et al., 2007). However, in the same report, by adding the anti-social trait variable, this difference was insignificant. In other studies, there was no significant relationship between type of treatment and re-arrest (Guydish, 2002; Burdon et al., 2007; Learney et al., 2012). Thus, it seems that re-arrest, like relapse, is not merely related to treatment type (voluntary or compulsory) and other factors should be sought in this regard. Readiness for treatment is another variable that has been considered by researchers. Readiness for treatment is considered as a commitment, reason and purpose of the patient, which leads to specific behaviors associated with treatment and helps maintain the patient in the treatment and attainment of therapeutic goals (Rapp et al., 2007). In one study, the readiness for treatment was significantly different in the two groups of compulsory and voluntary which was higher in the group who voluntarily

entered the treatment (Decker, et al., 2010). The study of Stone et al. (2007) showed that there was a significant difference in the readiness for the treatment of participants (both voluntary and compulsory) before and after treatment, and their readiness for treatment was increased.

In the study of Schaub et al. (2009), the effect of compulsory and voluntary treatment on the degree of employment, self-efficacy and mental health of patients was also noted. According to the results of this study, there was no significant difference in these variables in the two groups at the baseline. The employment variable in Aston et al. (2007) did not have a significant difference. The United Nations Office on Drugs and Crime reports four factors: (1) no result (2) insecure to clients; (3) costly (4) lack of competence in centers in the situation analysis of the compulsory treatment centers; (United Nations Office on Drugs and Crime, 2015). In addition, the results of a review study confirmed the ineffectiveness of compulsory treatment (Werb et al., 2016), which is consistent with the findings of this study in which the effectiveness of compulsory treatment is low.

Researches examined in this study were encountered with some limitations such as emphasis on self-reporting of information, lack of standard services, and differences in the quality and management of different centers and the use of second-order information from other researches. However, based on the findings and results of the researches, voluntary treatment had a better outcome than compulsory treatment. Setting up the drug court treatment in the world is a valuable experience that seems to reduce the weaknesses of compulsory treatment and, on the other hand, increase the effectiveness of health care. Given the emphasis on evidence of the ineffective use of compulsory treatment, policymakers should seek to implement evidence-based voluntary treatments to reduce drug use harm (United Nations Office on Drugs and Crime, 2015; Werb et al., 2016). The subject of compulsory treatment in different countries has different rules, different concepts and different methods. In this paper, the studies that were examined had different sample sizes, interventions and research methods; therefore, comparing studies, we should consider these items. Given the increasing use of compulsory treatment in our country and the lack of research on the cost of the effectiveness of this type of treatment, it is suggested to conduct some researches based on the first type data.

Reference

- Abadinsky, H. (2004). *Drugs, Brief view*. Translation by J. Karimi, M. Dehghani Kazemi, M. A. Zakariah, A. Gharakhani (2005). Tehran: Office of Research, Studies and Training of the Counter Narcotics Headquarters.
- Amon, J., Pearshouse, R., Cohen, J., & Schleifer, R. (2013). Compulsory drug detention centers in China, Cambodia, Vietnam, and Laos: health and human rights abuses. *Health Human Rights*, 15(2), 124-137.

- Anglin, M. D., Prendergast, M., & Farabee, D. (1998). *The effectiveness of coerced treatment for drug-abusing offenders*. In Office of National Drug Control Policy's Conference of Scholars and Policy Makers, Washington, DC. 23-25.
- Barati Sadeh, F. (2014). *Description of the compulsory treatment of addiction in Iran*. Eighth International Congress on the Study of Addiction, Tehran.
- Broadstock, M., Brinson, D., & Weston, A. (2008). *The effectiveness of compulsory, residential treatment of chronic alcohol or drug addiction in non-offenders*. New Zealand: Health Services Assessment Collaboration (HSAC), University of Canterbury.
- Burdon, W. M., Dang, J., Prendergast, M. L., Messina, N. P., & Farabee, D. (2007). Differential effectiveness of residential versus outpatient aftercare for parolees from prison-based therapeutic community treatment programs. *Substance Abuse Treatment, Prevention, and Policy*, 2(1), 16-26. DOI: 10.1186/1747-597X-2-16.
- Caplan, A. L. (2006). Ethical issues surrounding forced, mandated, or coerced treatment. *Journal of Substance Abuse Treatment*, 31, 117-120.
- Copeland, J., & Maxwell, J. C. (2007). Cannabis treatment outcomes among legally coerced and non-coerced adults. *BMC Public Health*, 7(1), 111-121. DOI: 10.1186/1471-2458-7-111.
- Deci, E. L., Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Deilamizade, A., & Esmizade, S. (2015). Economic sanctions against Iran, and drug use in Tehran, Iran: a 2013 pilot study. *Substance use & misuse*, 50(7), 859-868.
- Dekker, J., O'Brien, K., & Smith, N. (2010). *An evaluation of the compulsory drug treatment*. NSW Bureau of Crime Statistics and Research.
- Easton, C. J., Babuscio, T., & Carroll, K. M. (2007). Treatment Retention and Outcome among Cocaine-Dependent Patients with and Without Active Criminal Justice Involvement. *Journal of the American Academy of Psychiatry and the Law Online*, 35(1), 83-91.
- Fairbairn, N., Hayashi, K., Ti, L., Kaplan, K., Suwannawong, P., Wood, E. and Kerr, T. (2015). Compulsory drug detention and injection drug use cessation and relapse in Bangkok, Thailand. *Drug and Alcohol Review*, 34, 74-81.
- Ferri, M., Davoli, M., & Perucci, C. A. (2011). *Heroin maintenance for chronic heroin-dependent individuals*. The Cochrane Library.
- Glantz, M., & Hartl, Ch. R. (2002). *Substance Abuse: Origins and Interventions*. Translation by M. Mohammadi, M. Rahat Nejat, N. Parsa, M. Ghorbani, E. Mirzaei, F. Nemat, F. Najarian, Gh. Naziri (2007). Tehran: Center for Research, Studies and Training of the Counter Narcotics Headquarters.
- Goldsmith, R. J. & Latessa, E. (2001). Coerced treatment of addictions in the criminal justice system. *Psychiatric Annals*, 31(11), 657-663.
- Guydish, J. R. (2002). A Drug Court Outcome Evaluation Comparing Arrests in a Two Year Follow-up Period. *Journal of Drug Issues*, 32(4), 1155-1172.
- Hammersley, R., Forsyth, A., Morrison, V., & Davies, J. B. (1989). The relationship between crime and opioid use. *Addiction*, 84(9), 1029-1043.
- Israelsson, M., & Gerdner, A. (2012). Compulsory commitment to care of substance misusers: international trends during 25 years. *European addiction research*, 18(6), 302-321.

- Jansson, I., Hesse, M., & Fridell, M. (2008). Influence of personality disorder features on social functioning in substance-abusing women five years after compulsive residential treatment. *European addiction research*, 15(1), 25-31.
- Klag, S., O'Callaghan, F., & Creed, P. (2005). The use of legal coercion in the treatment of substance abusers: An overview and critical analysis of thirty years of research. *Substance use & misuse*, 40(12), 1777-1795.
- Kowal, J., & Fortier, M. S. (1999). Motivational determinants of flow: Contributions from self-determination theory. *The Journal of Social Psychology*, 139(3), 355-368.
- Lamey, S., Toson, B., Burns, L., & Dolan, K. (2012). Effect of prison-based opioid substitution treatment and post-release retention in treatment on risk of re-incarceration. *Addiction*, 107(2), 372-380.
- Madani, S. (2011). *Addiction in Iran*. Tehran: Nashr-e Sales.
- Malta, M., & Beyrer, C. (2013). The HIV epidemic and human rights violations in Brazil. *Journal of the International AIDS Society*, 16(1), 1-3. DOI: 10.7448/IAS.16.1.18817.
- Marlowe, D. B., Kirby, K. C., Bonieskie, L. M., Glass, D. J., Dodds, L. D., Husband, S. D., ... Festinger, D. S. (1996). Assessment of coercive and noncoercive pressures to enter drug abuse treatment. *Drug and Alcohol Dependence*, 42, 77-84.
- Moghanibashi-Mansourieh, A., Deylanizade, A. (2014). the state of data collection on addiction in Iran. *Addiction*, 109(5), 854-855.
- Mongheni Bashi Mansouriyeh, A. (2015). *Designing a protocol (protocol) for social work intervention in the treatment and rehabilitation of drug abusers in compulsory treatment centers*. Master's thesis. University of Social Welfare and Rehabilitation Sciences Tehran.
- National Institute on Drug Abuse (NIDA) (Revised April 2014). *Principles of Drug Abuse Treatment for Criminal Justice Populations - A Research-Based Guide* (Featured Publication).
- Nouri, R., Sadiqian, A., Rafiei, H., Narenjiha, H., Sarami, H., & Baghestani, A. (2008). *Analysis of the trend of addiction over the past two decades (trends in addiction-related phenomena during the years of implementation of the first to fourth development plans)*. Center for Research on Substance Abuse and Substance Abuse University of Social Welfare and Rehabilitation Sciences.
- Perron, B. E., & Bright, C. L. (2008). The Influence of Legal Coercion on Dropout from Substance Abuse Treatment: Results from a National Survey. *Drug and Alcohol Dependence*, 92(1-3), 123-131.
- Pritchard, E., Mugavin, J., & Swan, A. (2007). *Compulsory treatment in Australia: A discussion paper on the compulsory treatment of individuals dependent on alcohol and/or other drugs*. Australian National Council on Drugs, Canberra.
- Rahimi, Movaghar, A., Khosto, G., Razzaghi, O., Saberi Zafarqandi, M. B., Nowroozi, A. R., & Jarshiha, R. (2011). Compulsory methadone maintenance treatment for addicts, at the Resident Center: Evaluation of the intervention process. *Quarterly Journal of Health Monitor*, 10 (4), 493-512.
- Rahimi, Movaghar, A., Khosto, G., Razzaghi, O., Saberi Zafarqandi, M. B., Nowroozi, A. R., & Jarshiha, R. (2011). Compulsory treatment of methadone maintenance addicts at Resident Center: Evaluation of results in follow-up of two and six months. *Quarterly Journal of Health Monitor*, 10 (4), 503 - 512.

- Rapp, R. C., Xu, J., Carr, C. A., Timothy Lane, D., Redko, C., Wang, J., & Carlson, R. G. (2007). Understanding Treatment Readiness in Recently Assessed, Pre-Treatment Substance Abusers. *Substance Abuse*, 28(1), 11–23. DOI: 10.1300/J465v28n01_03.
- Regine, I. P. (2008). Mandatory treatment and perceptions of treatment effectiveness: A Queensland study of non-custodial offenders with drug and/or alcohol abuse problems. *Crime and Misconduct Commission*, 7, 1-22.
- Rengifo, A. F., & Stemen, D. (2013). The impact of drug treatment on recidivism: Do mandatory programs make a difference? Evidence from Kansas's Senate Bill 123. *Crime & Delinquency*, 59(6), 930-950.
- Schaub, M., Stevens, A., Berto, D., Hunt, N., Kersch, V., McSweeney, T., & Werdenich, W. (2009). Comparing outcomes of 'voluntary' and 'quasi-compulsory' treatment of substance dependence in Europe. *European addiction research*, 16(1), 53-60.
- Sekhavat, J. (2006). *Sociology of social deviations*. Tehran, Payame Noor University.
- Stevens, A., Berto, D., Heckmann, W., Kersch, V., Oeuvray, K., van Ooyen, M., ... Uchtenhagen, A. (2005). Quasi-compulsory treatment of drug dependent offenders: An international literature review. *Substance Use and Misuse*, 40, 267–283.
- Sullivan, M. A., Birkmayer, F., Boyarsky, B. K., Frances, R. J., Fromson, J. A., Galanter, M., ... & Westermeyer, J. (2008). Uses of Coercion in Addiction Treatment: Clinical Aspects. *The American Journal on Addictions*, 17, 36–47.
- Thomson, N. (2010). *Detention as treatment: Detention of methamphetamine users in Cambodia, Laos, and Thailand*. Open Societies Foundation.
- UNODC. (2015). *Transition from compulsory centers for drug users to voluntary community-based treatment and services*. The United Nations Office on Drugs and Crime.
- Utyasheva, L. (2007). Russian Federation: inhumane conditions in drug treatment facilities lead to tragedy. *HIV/AIDS policy & law review*, 12(1), 32-33.
- Vuong, T., Nguyen, N., Le, G., Shanahan, M., Ali, R., & Ritter, A. (2017). The political and scientific challenges in evaluating compulsory drug treatment centers in Southeast Asia. *Harm Reduction Journal*, 14(1), 2-9. DOI: 10.1186/s12954-016-0130-1.
- Werb, D., Kamarulzaman, A., Meacham, M. C., Rafful, C., Fischer, B., Strathdee, S. A., & Wood, E. (2016). The effectiveness of compulsory drug treatment: A systematic review. *International Journal of Drug Policy*, 28, 1-9.
- Wild, T. C., Cunningham, J. A. & Ryan, R. M. (2006). Social pressure, coercion, and client engagement at treatment entry: A self-determination theory perspective. *Addictive Behaviors*, 31, 1858–1872.