



## DIFFICULTIES IN THE TREATMENT OF ADDICTS WITH THE COMPULSORY TREATMENTS

### POTEŠKOĆE U TRETMANU OVISNIKA TOKOM LIJEČENJA OBAVEZNOG PO ZAKONU

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#### ABSTRACT

Aim of this study was to present data on addicts with the imposed protective measure of compulsory treatment of addiction that were sent to the Institute for Addiction Diseases for the period 2014-2020. The study compares arts of law violation, art of addiction as well as duration of the protective measure of compulsory treatment. Out of 61 patients, 59 (96 %) were males and 2 (4%) females. The only reason for compulsory treatment for all of them was domestic violence. Out of 61 patients 41 (67%) underwent compulsory treatment due to use of psycho-active compounds (PAS) and 20 (33%) due to use of alcohol. Incidence of alcohol or PAS was statistically significant higher in males than in females (19 vs 1,  $p < 0.001$ ; 40 vs 1,  $p < 0.001$ , respectively). Duration of the treatment was significantly longer in patients who used PAS than in those who used alcohol (10.29 vs 7.4 months;  $p < 0.05$ ). There was not statistically difference between duration of the treatment in males and females (9.36 vs 9.00 months;  $p > 0.05$ ). Incidence of the compulsory measures was significantly higher in 2018, 2019 and 2020 than in 2014, 2015 and 2016 ( $p < 0.001$ ). In all analyzed years, except 2015, incidence of the mandatory measures was significantly higher in patients who misused PAS than who misused alcohol. The most common difficulties are: low motivational capacity, inadequate way of thinking, inadequate way of behaving with the adoption of new models and, ultimately, inadequate independent functioning.

**Keywords:** addiction, compulsory treatment, violation of the law, criminal behaviour.

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## SAŽETAK

Cilj ovog istraživanja je prezentirati podatke o ovisnicima koji su morali biti po zakonu obavezno tretirani i koji su upućeni na obavezno liječenje na Zavodu za bolesti ovisnosti Kantona Sarajevo u periodu 2014-2020. U ovoj studiji su analizirani vrste kršenja zakona, učestalost tipova ovisnosti i trajanje protektivnih mjera obaveznog/prisilnog tretmana. Od 61 pacijenta koji su bili uključeni u studiju, njih 59 (96 %) su bili muškarci i 2 (4%) žene. Jedini razlog njihovog prisilnog/obaveznog tretmana po zakonu je bio nasilje u porodici. 41 (67%) pacijent je bio podvrgnut prisilnoj terapiji zbog korištenja psihoaktivnih susptanci (PAS) i 20 (33%) pacijenata zbog upotrebe alkohola. Učestalost zloupotrebe alkohola ili PAS-a je statistički značajno veća u muškaraca nego u žena (19 naspram 1,  $p < 0.001$ ; odnosno 40 naspram 1,  $p < 0.001$ ). Trajanje tretmana je bilo statistički značajno duže u pacijenata koji su koristili PAS nego u onih koji su koristili alkohol (10.29 naspram 7.4 mjeseci;  $p < 0.05$ ). Nije bilo statistički značajne razlike u trajanju tretmana pacijenata muškog i ženskog spola (9.36 naspram 9.00 mjeseci,  $p > 0.05$ ). Učestalost obaveznih po zakonu tretmana je bila statistički signifikantno veća 2018., 2019. i 2020. nego 2014., 2015. i 2016. godine ( $p < 0.001$ ). Tokom svih analiziranih godina, osim 2015., učestalost obaveznih po zakonu tretmana je statistički značajno bila veća zbog zloupotrebe PAS-a nego zbog zloupotrebe alkohola. Najčešći otežavajući faktori su bili: nizak nivo motivacije, neadekvatan način razmišljanja, neadekvatan način ponašanja prilikom prihvatanja novih modela/metoda, i na kraju, nesposobnost neovisnog funkcionisanja.

**Ključne riječi:** ovisnost, obavezni tretman, kršenje zakona, kriminalno ponašanje.

## INTRODUCTION

Opioid addiction is not just a medical phenomenon that affects mental and somatic health. It affects all segments of society, especially the justice system (Gaertner et al., 2019). It is a complex disease that affects the brain and behavior and it is a chronic recurrent disease with consequences on economic, public and personal health (Kampman and Jarvis, 2015). It can also be considered a learned pattern of behavior with a neurobiological basis related to the dopamine neurotransmitter system (Anonymous, 2018) but can also be considered a bio-socio-psycho-spiritual disease in which drug use is only one component of the overall treatment (Kamali et al., 2021). Addiction disease impairs not only human health but also other segments of life, primarily the legal, ethical, social and cultural aspects (Ducharme and Moore, 2019). Opiate Use Disorder (OUD) is defined as a chronic, relapsing condition with increased morbidity in which adequate long-term remission can be achieved with adequate treatment (Kamali et al., 2021). Substance Use Disorder (SUD) according to the DSM V classification is a set of symptoms that during its development include continuous use of psycho-active substance (PAS), the phenomenon of tolerance and abstinence, periods of relapse and remission, and intense craving for the substance. PAS is first taken to induce euphoria and relieve pain, later to prevent contraction syndrome. When the phenomenon of tolerance accompanied by intense craving develops, then we speak of a developed addiction disease (Anonymous, 2007). The prevalence of OUD is highest in North American countries, where an estimated 2.4 million Americans suffer from it (Wang, 2019).

It is estimated that approximately 28.9% of adults aged 15-64 (83 million people of this age) have tried illegal PAS at least once in their life. Experience with the use of PAS is more common in men (50.6 million) than in women (32.8 million). In the European Union (EU), Cannabis is most commonly used by 47.6 million men and 30.9 million women (Petrović, 2019). Cocaine has a slightly lower value of 9.6 million men and 4.3 million women (Petrović, 2019). Ecstasy/Molly (MDMA) is consumed by 6.8 million men and 3.5 million women, amphetamine by 5.9 million men and 2.7 million women (Petrović, 2019). Opium overdose is associated with 81% of deaths in the EU. In Bosnia and Herzegovina (B&H), the consumption of opiates (leading heroin) is still present along with other psycho-active substances with the fact that the number of users is increasing and the age limit for the consumption of the first substance is decreasing. An addiction starts to develop during adolescence, which is in itself hypersensitive and usually reserved for the effect of "first trying a psychoactive substance" (Lopez et al., 2021). Due to numerous emotional turmoil, the addicted person experiences the extinction of moral consciousness, which consequently leads to the secondary criminogenic transformation of the addict with repeated conflicts with the law (Ducharme and Moore, 2019). The most common types of violations of the Law are theft, unauthorized production and distribution of narcotics, possession and enabling the use of narcotics, aggravated theft, assault on an official and domestic violence. Sanctions are imposed in accordance with the Criminal Code of the Federation of B&H (Anonymous, 2010) (Official Gazette of the FBiH, No. 36/03 and 42/10, Article 75 paragraph 1) for which it imposes a security measure of compulsory treatment, then in accordance with the Law on Execution of Criminal Sanction of the Federation of BiH (Anonymous, 1999) (Official Gazette of FBiH, No. 44/98, 42/99, 12/09, Article 183), which imposes mandatory treatment of drug addicts and alcoholics, followed by the Law on Protection from Domestic Violence of FBiH (Anonymous, 2013) (Official Gazette of FBiH No. 20/13, Article 9), which imposes types of protective measures, paragraph 5: Compulsory treatment for addiction) and the Rulebook on the manner and place of implementation of protective measures for compulsory treatment for addiction to perpetrators of domestic violence (Anonymous, 2015) (Official Gazette of FBiH, No. 23/08 and 99/15). The most common criminal offense we encounter in practice is domestic violence. The competent court will impose a protective measure of compulsory treatment for addiction on a violent person who has committed violence under the influence of alcohol, narcotics, or other psycho-active substances if there is a danger of recurrence of violence (Article 15 of the Law) (Anonymous, 2010). The protective measure may not be shorter than one month nor longer than two years. Every three months, the health institution implementing the protection measure sends a report on the progress of treatment to the competent social protection service, which is obliged to inform the competent court that imposed the protection/safety measure. The Institute for Addiction Diseases of the Sarajevo Canton, the competent Center for Social Work - Social Protection Service of the competent Municipality, the competent Police Administration, if involved in the decision of the Court, participate in the implementation of the protective measure of compulsory treatment of addicts. The protection measure is implemented in the Institute for the Treatment of Addiction Diseases, community mental health centers or therapeutic communities/communes (Article 3 of the Ordinance) (Anonymous, 2015). Treatment of opiate addiction is a complex process that requires time.

It contains components that need to be imported in order to achieve long-term stable and quality abstinence. The best results are achieved by a combination of psychopharmacotherapy and psychotherapy (Gaertner et al., 2019). The goal of treating addiction is not to stop taking a psychoactive substance, in this case opiates, but also to achieve work activity, reduce criminal activity, achieve improvement of social relations and family relations (Gaertner et al., 2019). Public health has an important role in understanding the problem of opiate addiction, offering destigmatizing models with the proliferation of innovative programs that help “safe” drug use, treatment, and long-term recovery (Bisaga et al., 2018). A special problem of the health system in general are people who inject drugs due to the high risk of hepatitis, HIV, bacterial endocarditis, skin infections, fungal infections, etc. (Magarbeh et al., 2021). After the diagnosis of opiate addiction is made, based on anamnestic data, examination of the patient, determination of the intensity of abstinence disorders using COWS (Clinical Opiate Withdrawal Scale) with subjective disorders (Subjective Opiate Withdrawal Scale) and urine test screening, it will be decided on the best treatment option which may go in terms of inpatient and/or outpatient treatment (Kampman and Jarvis, 2015). To keep patients on treatment long enough, short-term treatment with opiate agonists (OUT) can be introduced for up to 120 days. It is more efficient than standard OAT (Opioid assisted treatment) because long waiting lists are bypassed, patients' quality of life is improved, and treatment satisfaction is achieved while the crime rate is reduced. Buprenorphine is most used (Graczyk et al., 2021). When we talk about opiate addicts being treated with methadone therapy in a hospital setting, then methadone detoxification takes 21 days. Methadone maintenance is treatment with methadone therapy for more than 21 days. Addiction lasting less than two years is an indication for methadone detoxification, and addiction lasting more than two years is an indication for methadone maintenance (Anonymous, 2010). Treatment of opiate addiction reduces opioid use, prevents relapse, reduces the risk of mortality, improves health and quality of life in general. Opioid agonists (Methadone), partial opiate agonists (Buprenorphine, Buprenorphine/Naloxone) and opiate antagonists (Naltrexone) are used in the treatment (Anonymous, 2019). Hospitalization alone is not sufficient for the treatment of opiate addiction, and usually after the hospitalization, one of the outpatient treatments is recommended if the rehabilitation treatment is not continued in the communes. Outpatient treatment with psychotherapy and psychosocial treatment gives good results (Knox et al., 2019). Regardless of whether the patient is treated on outpatient or inpatient basis, the most difficult part of treatment is to motivate the patient for treatment as well as to select adequate pharmacotherapies with behavioral treatment through individual and group psychosocial forms of work (Gaertner et al., 2019). Even though psychopharmacotherapy is extremely effective in the treatment of opiate addicts, the duration of treatment is very significant, which is why strategies for keeping patients in treatment have been developed. In fact, long-term treatment of OUD is best practice. However, it is not clearly specified how long it should last and when is the best time to end the treatment, i.e. to turn off the medicine. It is also important that as many patients as possible are involved in some type of treatment but no matter what is done, there will always be a number of those who do not want to be treated with any type of treatment (Watkins et al., 2017). Real life due to difficulties in solving life problems, patients often reach for the substance again and return to the disease (relapse).

Therefore, a relationship with a doctor is necessary even when the measure of compulsory treatment ceases and should not be interrupted even when abstinence lasts for years (Ducharme and Moore, 2019).

In this study, we will present data on addicts with a mandatory measure of addiction treatment sent to the Institute for Addiction Diseases in the period from 2014-2020, with the type of crime committed, the type of addiction with the duration of the measure of compulsory treatment and especially emphasize the difficulties in treatment. The research is epidemiological and retrospective, where the data from the protocol on the records of court patients, medical and court documentation were used. Difficulties in treatment are numerous, both in the field of motivational capacities, development and strengthening of healthy resources, family engagement and improvement of communication skills.

### **Patients and methods**

This research was observational cross-sectional study. It included all patients who were admitted in Department for Addiction Diseases of Canton Sarajevo from January, 2014 to December 31, 2020. In this study incidence of mandatory compulsory, type of addiction, duration of treatment and sex were analyzed.

### **Statistical Analysis**

Data were analyzed by Student's t test and ANOVA. Categorical variables are presented as frequencies (%) and were analyzed with the  $\chi^2$  test with Yates correction. Differences between analyzed parameters were considered significant at  $p < 0.05$ .

### **RESULTS**

The study included 61 patients who were given the compulsory measurement in the period of 2014-2020. Fifty-nine (96 %) were males and 2 (4%) females. The only reason for compulsory treatment for all of them was domestic violence. Out of 61 patients 41 (67%) underwent compulsory treatment due to use of psycho-active compounds (PAS) and 20 (33%) due to use of alcohol. Incidence of alcohol or PAS was statistically significant higher in males than in females (19 vs 1,  $p < 0.001$ ; 40 vs 1,  $p < 0.001$ , respectively) (Figure 1).

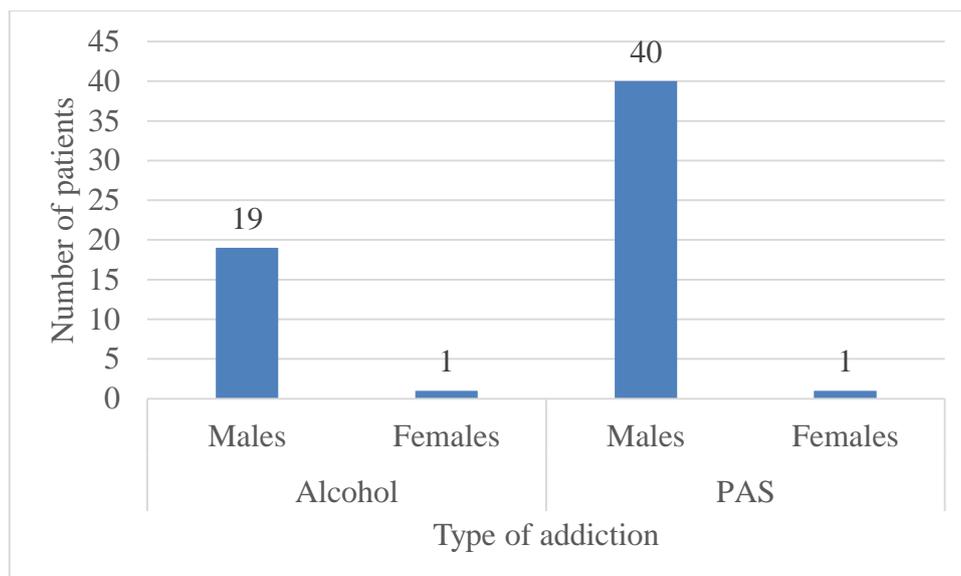


Figure 1. Incidence of type of addiction according to the sex

Duration of the treatment was significantly longer in patients who used PAS than in those who used alcohol (10.29 vs 7.4 months;  $p < 0.05$ ). There was not statistically difference between duration of the treatment in males and females (9.36 vs 9.00 months;  $p > 0.05$ ). Incidence of the compulsory measures was significantly higher in 2018, 2019 and 2020 than in 2014, 2015 and 2016 ( $p < 0.001$ ) (Figure 2). In all analyzed years, except 2015, incidence of the mandatory measures was significantly higher in patients who misused PAS than who misused alcohol (Figure 3).

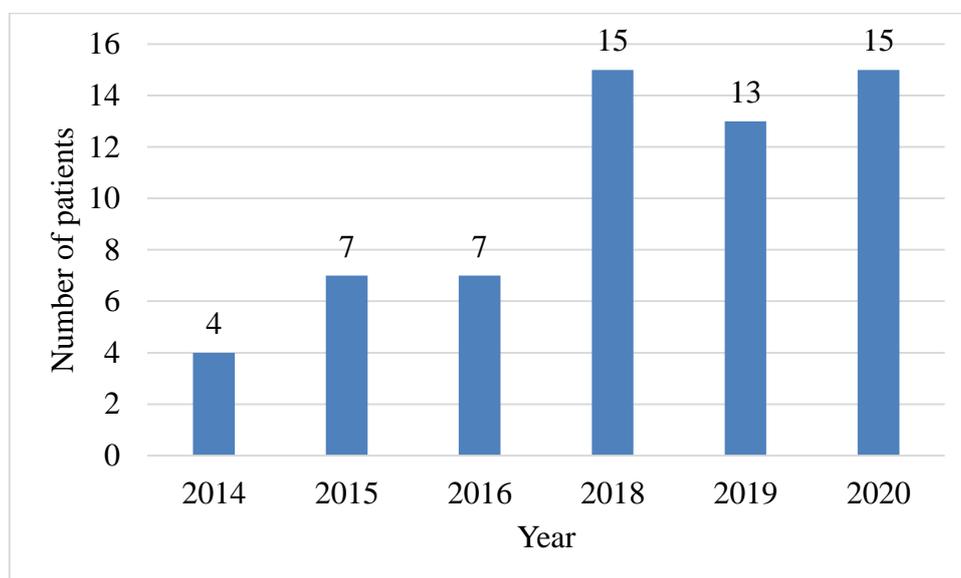


Figure 2. The compulsory measures per year

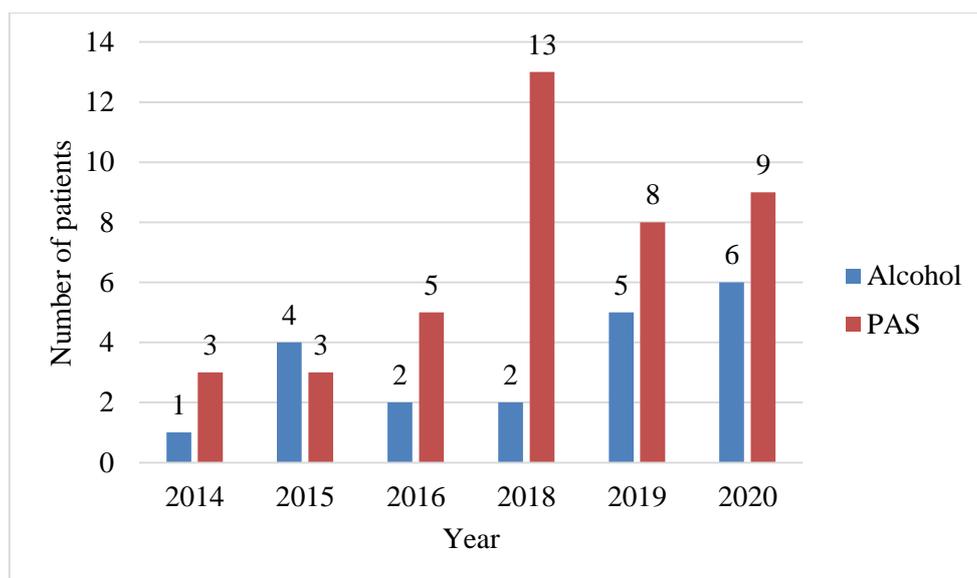


Figure 3. The mandatory measures received for alcohol and PAS addictions per year

## DISCUSSION

The only reason for compulsory treatment for all patients was domestic violence. Out of 61 patients 41 (67%) underwent compulsory treatment due to use of psycho-active compounds (PAS) and 20 (33%) due to use of alcohol. Incidence of alcohol or PAS was statistically significant higher in males than in females. The compulsory treatments were given to males for both PAS (65 %) and alcohol (31%) misusage, where only one female patient was reported for alcohol (2%) and one female patient (2%) for PAS misusage.

It is also important to mention the typical length of the treatment. As seen from the introduction, the treatment should not be shorter than one month and not longer than two years. Regarding to this, the treatment for PAS misusage is usually longer than for alcohol misusage. The reason for that lies in the fact that PAS addition is usually treated with substitutional therapy like Methadone or Buprenorphine, Buprenorphine/Naloxone or Naltrexone. In average, 10.29 months was compulsory treatment obtained for PAS misusage and 7.40 months for alcohol misusage.

As expected, the duration of the treatment was longer for males (in average 9.36 months) compared to females (9.00 months). This, however, might be the fact because the cohort of 61 patients comprised only 2 females and 59 males.

Another point that needed to be discussed is the duration of the treatment itself. The most compulsory treatments were given in the duration of 6 and 12 months for PAS and alcohol misusage. Only 4 patients (6%) were given compulsory treatment in the duration of 8 and 12 months for PAS misusage. When we discuss domestic violence caused by alcohol misusage, similar statistics can be obtained as for PAS: for majority the treatment duration was 6 and 12 months, where only 1 patient (1.6%) had the treatment for 2 and 8 months.

This study observed the mandatory treatments in the period 2014-2020. 24.6 % of all compulsory treatments (including PAS and alcohol misusage) were given in the year 2018 and 2020. Slightly less (21.3%) was given in 2019.

For each of previous years (2014-2016) only 7 measures per year were obtained. As expected, the majority of given compulsory measures were for PAS causing domestic violence: the highest percentage in year 2018 (21.3%), 14.75% in year 2020 and 13.11% in year 2019. Slightly less (8.2 %) was reported in year 2016 and only 5% in 2014 and 2015, respectively. When observing the treatments for domestic violence caused by alcohol, it is clearly visible that the number of measures is lower than for those caused by PAS. The highest percentage was obtained in 2020 (9.83 %) and slightly less (8.19%) in year 2019 and 6.55 % in year 2015, respectively.

A multidisciplinary approach is needed in the implementation of the compulsory treatment measure (Knox et al., 2019). The treatment of these patients should be integrative in terms of providing psychopharmacotherapy, psychosocial therapy and rehabilitation. The treatment should be tailored to the individual needs of each patient. For opiate addicts, opiate substitution therapy is preferred (Graczyk et al., 2021). For other addictions psychopharmacotherapy in accordance with the clinical picture represents the most common approach. The imposed measure of obligatory treatment implies that the patient's treatment is carried out on an outpatient basis (Ducharme and Moore, 2019). In case of life-threatening situations or worsening of the patient's psychosomatic condition (relapse, deterioration of mental status), hospital treatment is indicated (Bisaga et al., 2018). As the overall treatment of addicts is a process that is accompanied by many difficulties, they are also encountered in the treatment of addicts with the imposed measure of mandatory treatment (Magarbeh et al., 2021). The most common difficulties are encountered in the field of motivational capacities that are a necessary basis for changing the way of thinking, changing the way of behaving with the adoption of new models and, ultimately, adequate independent functioning. Difficulties are also encountered in the process of establishing and strengthening healthy personality resources through the development and adoption of quality social skills. There are also many difficulties in motivating family members to get involved in the socio-therapeutic treatment of patients because they are the people who have been abused as seen from the analysis. They are also encountered in the field of patient education with the aim of improving communication skills that would serve to adequately resolve conflict situations, which is again the basis for changing of violent to non-violent behavior. The protective measure of compulsory treatment of addicts can also be a positive stimulus for a serious approach to treatment itself, especially in first-time patients. It is also important to emphasize that the treatment of violent addicts, no matter how complex and with how many difficulties, is not always without results and positive therapeutic steps.

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