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THE MOST COMMON CRIMINAL OFFENCES AMONG PSYCHOACTIVE DRUG ADDICTS

NAJČEŠĆA KRIVIČNA DELA ZAVISNIKA OD PSIHOAKTIVNIH SUPSTANCIJA

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Summary

Introduction. Psychoactive drug addiction causes serious consequences in many countries, not only for the health of the nation, but also for the emergence of various social problems, such as high crime rates, delinquency and unemployment. **Material and Methods.** A retrospective-prospective study included data of 100 criminal offenders, drug addicts, gathered from forensic psychiatric records in the context of criminal offences committed by those persons. **Results.** Out of all the drug addicts who committed criminal offences, 98% were males and the average age was 30.44. Most of the offenders were unemployed and had a lower level of education. A total of 56% were previously convicted. The majority of them previously committed one felony. Compared to previous offences, new criminal offenses were against life and body in 70%. Comorbid mental disorders were diagnosed among 84% of examinees at the moment of committing a crime, and 60% had personality disorders. The largest number of subjects with alcohol addiction primarily make offenses against life and body, while those with substance addiction usually commit offenses against human health. **Conclusion.** In drug addicts who have committed criminal offences, it has been confirmed that gender, age, employment, history of committing criminal acts and comorbid mental disorders are criminogenic factors that are significant for the prediction of general criminality. The continuity in researching predictive factors, as well as crime prevention within the population with mental disorders is and needs to remain a priority.

Key words: Drug Users; Criminal Behavior; Substance-Related Disorders; Crime; Mental Disorders; Personality Disorders; Risk Factors; Forensic Sciences

Sažetak

Uvod. Zavisnost od psihoaktivnih supstanci u mnogim zemljama ima ozbiljne posledice, ne samo po zdravlje nacije, nego i pojavi različitih društvenih problema, koji se ispoljavaju u vidu kriminaliteta, delinkvencije i nezaposlenosti. **Materijal i metode.** Retrospektivno-prospektivna studija koja je razmatrala podatke dobijene kroz sudsko-psihijatrijska veštačenja 100 učinilaca koji su zavisnici od psihoaktivnih supstancija, a u kontekstu krivičnih dela koja su ta lica počinila. **Rezultati.** U populaciji zavisnika kao učinioca krivičnih dela muški pol je zastupljen sa čak 98% i prosečnom starošću od 30,44 godina. Učinioci su najčešće nižeg obrazovnog nivoa i nezaposleni. Ranija osuđivanost u ispitivanoj populaciji iznosi 56%. Za razliku od ranijih, sadašnja krivična dela u 70% bila su krivična dela protiv života i tela. Kod 84% ispitanika dijagnostikovano je postojanje komorbidnih mentalnih poremećaja u vreme izvršenja dela i to u 60% poremećaja ličnosti. Najveći broj onih koji su zavisnici od alkohola izvršavaju prevashodno dela protiv života i tela, dok zavisnici od opioida češće čine dela protiv zdravlja ljudi. **Zaključak.** Kod zavisnika koji su učinili krivična dela potvrđeno je da pol, starost, zaposlenost, istorija činjenja krivičnih dela i komorbidna dijagnoza mentalnog poremećaja predstavljaju kriminogene faktore kao značajne činioce za predikciju opšteg kriminaliteta. Kontinuitet u istraživanju faktora koji mogu doprineti adekvatnijoj predikciji, kao i prevenciji kriminaliteta u populaciji osoba sa mentalnim poremećajima, jeste i mora ostati stručni minimum.

Ključne reči: zavisnici od psihoaktivnih supstanci; krivična dela; bolesti zavisnosti; kriminal; mentalni poremećaji; poremećaji ličnosti; faktori rizika; forenzika

Introduction

Criminal offenses

Criminal offence is defined by Article 14 of the Criminal Code of the Republic of Serbia:

1. A criminal offence is an offence set forth by the law as a criminal offence, which is unlawful and committed with a guilty mind/mens rea.

2. There is no criminal offence without an unlawful act or culpability, notwithstanding the exist-

ence of all essential elements of a criminal offence stipulated by law [1].

Criminal offences include criminal offences against life and body (Article 113 – Article 127) – murder, aggravated murder, heat of passion manslaughter, offences against property (Article 203 – Article 222) – theft, aggravated/compound larceny, grand larceny, robbery, as well as criminal offences against human health (Article 246 – Article 259) – unlawful production and circulation of narcotics, unauthorized possession of narcotics, etc.

Drug addiction

By definition, psychoactive substances are chemicals that alter mental functions when consumed, i.e. they affect human consciousness, cognition, behavior, and mood [2]. Substance abuse leads to addiction disease, jeopardizing mental and physical health, as well as deterioration in the quality of family, professional, and social relationships [3]. Drug addiction causes serious consequences across many countries, not only when it comes to national health, but also in the context of social issues (e.g. crime rates, delinquency, unemployment, prostitution, homelessness, poverty, severe dysfunctions in family relationships) [4].

Today, there is no unique definition of drug addiction, but there are diagnostic criteria. According to the Tenth International Classification of Diseases, definite diagnosis of dependence should be made only if three or more of the following criteria have been present together at some time during the previous year: a strong desire or sense of compulsion to take the substance; difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use; a physiological withdrawal state when substance use has ceased or been reduced as evidenced by the characteristic withdrawal syndrome for the substance, or use of the same substance with the intention of relieving or avoiding withdrawal symptoms; evidence of tolerance, such that increased doses of the psychoactive substances are required in order to achieve effects originally produced by lower doses; progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects; persisting with substance use despite clear evidence of overtly harmful consequences [5].

Forensic significance of alcohol addiction

Examination of persons under the influence of alcohol does not differ from other examinations of individuals with temporary mental disorders. Clinical presentation of alcohol intoxication is used for the analysis of psychopathological and pathophysiological effects and their impact on judgment and decision making. When examining criminal cases, experts mostly focus on assessing cognitive impairments and affective disorders caused by alcohol. Examination of persons under the influence of alcohol who also have personality disorders is a par-

ticular challenge because it requires knowledge of socio-dynamic and psychodynamic events. From the forensic-psychiatric viewpoint, alcohol stimulates immature defense mechanisms. Among psychopaths, immature defense mechanisms are already present and can be intensified by alcohol. Alcohol disrupts immature defense mechanisms and regresses them to the most primitive levels of reacting such as autoaggression, heteroaggression, splitting, primitive projection and identification, acting-out [6].

Forensic significance of opioid addiction

Opioid drugs quickly cause character deviations, loss of ethical standards and ability to live and behave normally, leading to sexual disinhibition and antisocial behavior [7]. Because of the strong desire to take the substance, people commit crimes and felonies. Evaluation of sanity is a specific task. At the beginning of examination, it is necessary to establish whether the person is an addict. If he or she is an addict, the next question is what type of drugs he or she consumes, and how; if the crime was committed under the influence of a certain psychoactive substance, and if yes – which one. If the offence is typical for addicts (e.g. theft in a pharmacy, falsification of medical prescriptions, selling drugs), it is important to confirm whether the offence was made during the withdrawal crisis or due to the fear of experiencing it. Addicts commonly think ahead and resort to thefts to gather resources for buying drugs. They do so to relieve or avoid withdrawal symptoms. Personality disorders are common among addicts. The primary personality pathology is followed by a secondary development of substance use disorders [8].

Material and Methods

A retrospective-prospective study was conducted at the Department of Forensic Psychiatry, Psychiatry Clinic, Clinical Center of Vojvodina, Novi Sad. The sample included data of 100 criminal offenders, drug addicts, gathered from forensic psychiatric records. The data were gathered over a time period of 10 years. Sociodemographic data were analyzed for all subjects, as well as the presence and type of the comorbid mental disorders and recidivism into criminal behavior.

Statistical Package for Social Sciences 22 was used for the statistical data analysis. The results were processed by using the methods of descriptive statistics. Pearson correlation coefficient (χ^2) was used for testing the frequency differences. The contingency coefficient (C) was used in situations when the criteria for Pearson correlation coefficient χ^2 were not fulfilled.

The study did not require Ethics Committee approval, considering that it does not contain any personal data of the subjects and that it was conducted according to the local court demand.

The main limitation of this research is related to the fact that only the most serious criminal acts were considered, for which the local court demand-

Table 1. Correlation coefficient between previous and new criminal offences**Tabela 1.** Koeficijent korelacije između ranije učinjenih i sadašnjih krivičnih dela

		New criminal offences/Sadašnja krivična dela				Total Ukupno
		Against life and body <i>Protiv života i tela</i>	Against property <i>Protiv imovine</i>	Against hu- man health <i>Protiv zdravlja</i>	Against traffic safety/ <i>Protiv bezb. saob.</i>	
Previous criminal offences <i>Ranije učinjena krivična dela</i>	None/ <i>Nema</i>	36	0	2	2	40
	Offences against life and body <i>Dela protiv života i tela</i>	18	0	0	0	18
	Offences against property <i>Dela protiv imovine</i>	10	6	0	0	16
	Offences against human health <i>Dela protiv zdravlja ljudi</i>	6	0	20	0	26
	Total/Ukupno	70	6	22	2	100

Legend: $C = .699$, $p < .01$ there is a correlation between the type of previously committed offences and new criminal offences. Those who did not commit felonies in the past were more likely to commit an offence against life and body. Those who have previously committed offences against human health (unlawful production and circulation of narcotics) were more likely to become repeat offenders for the same type of crime. Similar patterns were identified among the subjects who have previously committed offences against life and body. This is the contingency coefficient C which shows the correlation between two variables, it is strong and indicates a positive relationship.

Legenda: $C = .699$, $p < .01$ postoji povezanost između vrste ranijih krivičnih dela i sadašnjih. Oni koji nisu ranije činili krivična delaznačajno češće su bili izvršioc delat protiv života i tela. Oni koji su ranije izvršili dela protiv zdravlja ljudi (neovlašćene proizvodnje i stavljanja u promet opojnih droga) češće isto delo ponavljaju (sadašnje) u odnosu na ostala dela. Slično je i sa onima koji su i ranije imali krivična dela protiv života i tela, češće ga ponavljaju u odnosu na ostala. Ovo je C koeficijent (koeficijent kontingencije) pokazuje korelaciju između dve varijable, visok je i pozitivnog smeru.

ed psychiatric assessment of offenders, while taking into account that all offences could lead to similar but not the same conclusions.

Results

Our sample included 98% of male subjects. The average age was 30.44 years; the youngest offender was 18 and the oldest 56 years of age. The majority of subjects (48%) had only primary education, followed by 28% of those with a bachelor's degree. A total of 18% had secondary education, while 6% had no formal education. When it comes to the employment status, 90% of subject were unemployed at the time when they committed the crime. A total of 56% were formerly convicted. The majority of them previously committed one offence (64.3%) compared to others who committed two or more. We also established the type of previously committed crimes, where 16 of the subjects committed offences against life and body, 16 committed offences against property, and 24 committed offences against human health. In contrast to the type of previously committed crimes, we examined offences against life and body (70%), offences against human health (22%), offences against property (6%), and criminal offences against traffic safety (2%). Despite the fact that there is no statistically significant correlation between subjects who were previously convicted and those who were not, a correlation between the type of previously committed crimes and the new ones, that we have examined, has been established. Those who did not previously commit any offences were more likely to commit an offence

against life and body, while those who have previously committed offences against human health (unlawful production and circulation of narcotics) were more likely to become repeat offenders for the same type of crime. Similar patterns were identified among the subjects who have previously committed offences against life and body (Table 1).

Based on the analysis of court records, available medical documentation, and psychiatric records, the expert committee of forensic psychiatrists has identified the presence of comorbid mental disorder at the moment of committing the crime in 84% of addicts. Thus, there is a statistically significant difference within the group, given the fact that the majority of the subjects had a comorbid mental disorder. Beside the 16% of addicts without a comorbid disorder and the ones with a personality disorder (60%), the most common comorbid mental disorders included organic disorders, psychotic disorders, affective disorders, or mental retardation in 4% to 6% of cases. In our research, personality disorder was found in 70% of the offenders who had some type of comorbid mental disorder. There is a significant frequency difference concerning the type of personality disorder. Emotionally unstable personality disorder ($F 60.3$) is significantly more frequent compared to other personality disorders. Within the sample, 44% of subjects were alcohol addicts, 30% were opioid addicts, 18% had polysubstance addiction, 4% were cannabinoid addicts, and 2% were addicted to sedatives. At the moment of committing a crime, 70% of all subjects were intoxicated with psychoactive substances, which is a statistically significant difference compared to subjects who

Table 2. Contingency coefficient between the type of offence and addiction tempore criminis
Tabela 2. Koeficijent kontingencije između vrste dela i zavisnosti tempore criminis

	None <i>Nema</i>	Alcohol <i>Alkohol</i>	Opioids <i>Opioidi</i>	Sedatives <i>Sedativi</i>	Cannabinoids <i>Kanabinoidi</i>	Polysubstance addiction <i>Više psihoaktivnih supstancija</i>
Offences against life and body <i>Dela protiv života i tela</i>	2	38	10	2	0	18
Offences against property <i>Dela protiv imovine</i>	0	2	4	0	0	0
Offences against human health <i>Dela protiv zdravlja ljudi</i>	0	2	16	0	4	0
Offences against traffic safety <i>Dela protiv bezbednosti javnog saobraćaja</i>	0	2	0	0	0	0
Total/ <i>Ukupno</i>	2	44	30	2	4	18

Legend: $C = .597$, $p < .05$ Contingency coefficient is significant at level .05. We identified a mid-level correlation between the type of crime and type of addiction to psychoactive substances tempore criminis. The majority of alcoholic addicts committed offences against life and body, while opioid addicts most commonly committed offences against human health, i.e. unlawful production and circulation of narcotics.

Legenda: $C = .597$, $p < .05$ Koeficijent kontingencije je značajan na nivou .05. Postoji povezanost srednjeg stepena između vrste dela i zavisnosti od psihoaktivnih supstancija tempore criminis. Najveći broj onih koji su zavisnici od alkohola izvršili su u najvećem broju dela protiv života i tela, u odnosu na druge zavisnike od opioida koji češće čine dela protiv zdravlja ljudi (neovlašćene proizvodnje i stavljanja u promet opojnih droga), u odnosu na druge vrste dela.

were not intoxicated. There were significantly more subjects who were intoxicated tempore criminis: 50% of them were under the influence of alcohol and the remaining 50% were under the influence of other psychoactive substances. We identified a mid-level correlation between the type of crime and type of addiction to psychoactive substances tempore criminis. The majority of alcoholic addicts committed offences against life and body, while opioid addicts most commonly committed offences against human health, i.e. unlawful production and circulation of narcotics (**Table 2**).

Discussion

Research results predominantly match the demographic data of subjects from other contemporary studies. A well-known predominance of males in the population of offenders has been confirmed in our research sample [9]. Furthermore, regarding the subjects' age, offenders are mostly young adults or middle-aged person as in up-to-date studies [10]. In regard to the above-mentioned results and data from available literature, we can conclude that gender and age are probably the two best predictors of criminogenic behavior. Prison population statistics confirm these numbers. Concerning the gender statistics of the offenders, it is interesting that 93% of the American prisoners in 2014 were men. More than half of committed crimes were murders, i.e. offences against life and body. The age statistics shows that those were vastly young offenders between 15 and 29 years of age, a demographic that made up 20% of the United States population at the time. Young men are also significantly more present as crime victims compared to other demographic groups [11–13]. The ratio of adult men and women

prisoners was relatively stable in 19 jurisdictions within the European Union between 2008 and 2013, where male prisoners made up 95% of the prison population [14]. An increasing number of research document the neurobiochemical basis of violence, which is more present among men. In this type of research, among men that continuously made violent offences, six criteria were noted as indicators of neurodevelopmental disorder. These criteria were defined based on the analysis of chronic violence, genetic, anatomical, and functional neuroimaging, and neuropsychology. Labor complications, minor physical anomalies, prenatal exposure to tobacco and alcohol, malnutrition, exposure to lead, and brain trauma are identified as early risk factors for violent behavior. Aberrant personality from early childhood, inadequate education, and social and professional functioning are believed to lead to persistent adult violence, which typically has a stable direction, with a negative connotation. Generally, it is argued that chronic adult violence meets the criterion for being conceptualized as having neurodevelopmental origins and that an important, but not sole, source of neural maldevelopment lies in prenatal and early postnatal risk factors [15]. At the same time, the neurodevelopmental origin of psychopathy is emphasized [16]. A dissocial personality disorder is conceptualized as neurodevelopmental at its core [17]. We should also mention that social processes are not excluded from the neurodevelopmental perspective given the fact that they do influence early brain development [18]. High unemployment rates among offenders at the moment of committing a crime, support the significant correlation prevalence between crimes and unemployment [19, 20]. The economist, Jeffrey Grogger claims that high crime rates among young men can

be explained partially by the unfavorable situation in the job market, meaning that jobs for this specific demographic group are typically low-paid. This increases the probability that they will commit crimes. Grogger's analysis shows that decreasing minimum wages leads to layoffs and an increased frequency of crimes committed by young men [21]. However, other studies (e.g. Chamlin and Cochran) claim that the correlation between unemployment and committing crimes is not significant, i.e. that the existing research are not consistent but rather complex and ambiguous [22]. The latest studies provide new theoretical arguments for the correlation between the two. The correlation reflects in the length of unemployment: the longer the person is unemployed, the bigger the chance that they will commit a crime [23]. In addition, the research mentions the need to improve the educational system to lower crime rates and secure more jobs. Simulations based on these models show that elimination of long-term unemployment among men between 15 and 24 years of age by opening new job positions, would result in decreasing crime rates by 7% per year. It is believed that, if these individuals finished higher education, crime rates would decrease by almost 15% per year [24, 25].

A research that discusses recidivism in repeat offenders [26–28] indicates that it could serve as a predictor for future offences [29]. Even though our research does not contain a statistically relevant piece of evidence to support the aforementioned indications, we think it is wise to bear them in mind. However, our research sample includes offenders who committed serious crimes and fit the profile of younger men which, according to studies, may mean that they will become repeat offenders. One of the previously published findings supports this claim. According to it, five out of six prisoners (83%) in the sample of 67,966 who were released in 2005 in 30 United States, were arrested at least once in the same year, looking at the period of nine years after being released [30]. Generally speaking, repeating the offence, as stated in review studies, was found between 50% and 99% of cases [31, 32]. Results of our research match the results of similar ones, according to which a previously committed murder is in correlation with a 1,467 increased probability that the offender will be prosecuted for the same type of felony in the future. A similar correlation has been confirmed between former and current participation in theft (249% increased probability), physical violence (200%), and unlawful production and distribution of narcotics (736%). These data enable prediction of the probability of repeat offences, while previous involvement in a certain type of crime dramatically increases the probability of participating in the same type of crime in the future [33].

The literature data are inconsistent when it comes to the type and incidence of certain mental disorders among the offenders, so this percentage varies between 10% and 91% [34–36]. In addition, review articles that discuss mental illness among adults, mi-

nors, men, women, and prisoners, claim that psychiatric disorders are generally more common among the offenders compared to the general population [37] and that the presence of comorbid mental disorder increases the chance of becoming an offender [38]. High rates of personality disorders in the sample match the data found in other studies claiming that these disorders are present in 13% to 24% of offenders and that emotionally unstable and dissocial personality disorders are the most common ones [39, 40]. This is also supported by the fact that people who start developing addiction usually have a personality disorder, which is typically treated as the premorbid personality of addicts [41]. It is estimated that prisoners are 20 times more likely to have personality disorders than the general population, which certainly points to personality disorders as risk factors for committing crimes [42]. According to some research, 85% of prisoners are addicted to psychoactive substances [43]. This distribution of addiction to psychoactive substances in offenders has been confirmed in similar research, i.e. the connection between crimes and alcohol, which can be explained by the influence of alcohol on cognitive and conative abilities [44]. Both our research and similar ones show that 34 - 59% of men commit crimes under the influence of psychoactive substances, and that most offenders were under the influence of alcohol while committing a crime [45]. Some authors report that a high number (between 50% and 90%) of felonies which include aggression (e.g. murder, grievous bodily harm, violent behavior) were committed by alcohol addicts under the influence of alcohol [46]. If we compare addiction and substance abuse, addiction increases the likelihood of committing a felony and recidivism [47, 48]. Heroin addicts commit 15 times more robberies, 20 times more burglaries, and 10 times more common thefts (all of which are offences against property) compared to other criminals [49]. However, the results of our research do not support this, but provide insights into offences against human health, i.e. unlawful production and circulation of narcotics. There are several interpretations of the nature of the relationship between drugs and crime, namely that the drug use precedes crime, then that crime precedes the drug use, and the third interpretation is that both behaviors are the result of the same risk factors [50]. There is extensive empirical material for all three models, so it is likely that there are all three variations of the common occurrence of addictive behavior and crime.

Conclusion

The results of this research indicate that in the criminal offenders from the territory of the Republic of Serbia, there is a significant connection between addiction to psychoactive substances and committing a crime, which is in agreement with the findings of current research studies. It was found that alcohol addicts, compared to persons addicted to other psychoactive substances, commit crimes significantly

more often, as well as that they most often commit offences against life and body, while opioid addicts more often commit offences against property.

By analyzing the connection between sociodemographic and psychopathological characteristics of the examined group of addicts who committed crimes, we confirmed that gender, age, employment, history of committing crimes, and comorbid diagnosis of mental disorders, are important predictors of future aggressive behavior.

The continuity in the research of factors that can contribute to more adequate prediction, as well as

primary and secondary crime prevention in the population of persons with mental disorders, is and must remain the professional minimum in socially responsible postulates of psychiatry as a profession and science.

In that respect, it is necessary to construct modalities of not only transversal, but also dynamic professional monitoring of persons with increased risk of committing crimes in the future, all with the aim of interventions that would reduce crime rates in the population with a diagnosed addiction.

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