ISSN 1820-2969 (PRINT) ISSN 2956-2198 (ONLINE) UDK 343



SERBIAN ASSOCIATION FOR CRIMINAL LAW THEORY AND PRACTICE



INSTITUTE OF CRIMINOLOGICAL AND SOCIOLOGICAL RESEARCH



JOURNAL OF CRIMINOLOGY AND CRIMINAL LAW

REVIJA ZA KRIMINOLOGIJU I KRIVIČNO PRAVO

ISSN 1820-2969 (Print) ISSN 2956-2198 (Online) UDK 343 DOI 10.47152/rkkp

Publishers

Serbian Association for Criminal Law Theory and Practice, Kraljice Natalije 45, Beograd

E-mail: sukp@sezampro.rs, Phone number: +381 11 26 58 019

Institute of Criminological and Sociological Research in Belgrade, Gračanička 18 E-mail: krinstitut@gmail.com, Phone number: +381 11 2625-424

Frequency of publishing:
Three times a year.
All articles and papers should be sent via online platform at https://rkkp.org.rs/

Abstract and indexing:
ERIHPLUS
Dimensions
HeinOnline Law Journal Library
Crossref
DOAJ

Financial support
Supported by the Ministry of Science, Technological Development and Innovation of Republic of Serbia

Print and prepress
Birograf Comp d.o.o. Beograd

Number of prints 200

Editor in chief

Prof. Božidar BANOVIĆ, PhD - Faculty of Security Studies University of Belgrade

Editor

Andela ĐUKANOVIĆ, PhD - Institute of Criminological and Sociological Research, Belgrade

Editorial Council

Prof. Zoran STOJANOVIĆ, PhD, University of Belgrade, Faculty of Law; Prof. Đorđe IGNJATOVIĆ, PhD, University of Belgrade, Faculty of Law; Academician Prof. Miodrag SIMOVIĆ, PhD, Constitutional court of Bosnia and Herzegovina Judge; Prof. Vojislav ĐURĐIĆ, PhD, University of Niš, Faculty of Law; Prof. Milan ŠKULIĆ, PhD, University of Belgrade, Faculty of Law, Republic of Serbia Constitutional Court Judge; Prof. Tatjana BUGARSKI, PhD, University of Novi Sad, Faculty of Law; Academician Igor Leonidovič TRUNOV, PhD, Russian Academy of Sciences in Moscow; Prof. Vid JAKULIN, PhD, University of Ljubljana, Faculty of Law; Nenad VUJIĆ, Director of the Judicial Academy in Belgrade.

Editorial Board

Prof. Stanko BEJATOVIĆ, PhD, University of Kragujevac, Faculty of Law; Jasmina KIURSKI, PhD, Deputy Republic Public Prosecutor; Prof. Dragana KOLARIĆ, PhD, University of Criminal Investigation and Police Studies, Belgrade, Republic of Serbia Constitutional Court Judge; Emir ĆOROVIĆ, PhD, Lawyer in Novi Pazar; Prof. Dragana ČVOROVIĆ, PhD, University of Criminal Investigation and Police Studies, Belgrade; Ivana STEVANOVIĆ, PhD, Institute of Criminological and Sociological Research, Belgrade; Milica KOLAKOVIĆ-BOJOVIĆ, PhD, Institute of Criminological and Sociological Research, Belgrade; Marina MATIĆ BOŠKOVIĆ, PhD, Institute of Criminological and Sociological Research, Belgrade; Ana BATRIĆEVIĆ, PhD, Institute of Criminological and Sociological Research, Belgrade; Prof. Zoran PAVLOVIĆ, PhD, Faculty of Law for Commerce and Judiciary in Novi Sad; Prof. em. Claus ROXIN, PhD, Faculty of Law, Ludwig Maximilian University of Munich, Prof. Mohammed AYAT, PhD, Vice President, UN Committee on Enforced Disappearances and member of International Society for Criminology; Prof. Horacio RAVENNA, PhD, School of Social Sciences University of Buenos Aires; Chucha Sergey YUREVICH, PhD, Institute of State and Law of The Russian Academy of Sciences in Moscow; Prof. Mario CATERINI, PhD, University of Calabria, Director of the Institute of Criminal Law Studies "Alimena"; Prof. Elizabeta IVIČEVIĆ KARAS, PhD, University of Zagreb, Faculty of Law; Prof. Gordana LAŽETIĆ, PhD, Ss. Cyril and Methodius University in Skopje, Faculty of Law "Iustinianus Primus"; Prof. Rok SVETLIČ, PhD, Science and Research Centre Koper; Assoc prof. Mile ŠIKMAN, PhD, University of Banja Luka, Faculty of Security Science; Asst. prof. Yang CHAO, PhD, Beijing Normal University, College for Criminal Law Science; Prof. Angelina STANOJSKA, PhD, University "St. Kliment Ohridski" Bitola, Faculty of Law; Prof. Drago RADULOVIĆ, PhD, University of Montenegro, Faculty of Law; Prof. István László GÁL, PhD, University of Pécs, Faculty of Law; Prof. Shin MATSUZAWA, PhD, Waseda University, School of Law, Tokyo; Asst. prof. Grażyna BARANOWSKA, PhD, Institute of Legal Studies of the Polish Academy of Sciences; Prof. Silvia SIGNORATO, PhD, University of Padua, Faculty of Law.

Editorial Board Secretary

Ana PARAUŠIĆ MARINKOVIĆ, PhD – Institute of Criminological and Sociological Research, Belgrade

Editorial Board Technical Secretary

Nada ĐURIĆIĆ, PhD - Faculty of Law for Commerce and Judiciary in Novi Sad

JOURNAL OF CRIMINOLOGY AND CRIMINAL LAW VOLUME 63 / NUMBER 1 / 2025

CONTENT

ARTICLES:
Ana Starčević, Aleksandra Ilić
BRAIN MORPHOLOGY IN MASS MURDERERS: AN IN-DEPTH
EXPLORATION
Ivana P. Bodrožić
CRIMINAL LAW PROTECTION OF THE ELECTORAL RIGHTS
IN THE CONTEMPORARY SERBIAN CRIMINAL LEGISLATION21
Mehmet Ali Tekiner, Simge Varlık, Aybüke A. İsbir Turan
CHEILOSCOPY: EXPLORING THE GENDER
AND AGE PATTERNS IN LIP PRINTS
Goran Krstajić, Dragan Obradović
JUVENILE PRISON – CONVINCED: PERPETRATOR
AND VICTIM OF A CRIMINAL OFFENSE59
Gojko Šetka, Dragomir Jovičić
USE OF FORCE BY POLICE OFFICERS
IN BOSNIA AND HERZEGOVINA79
Milica Simović
THE PROBLEM OF PRISON OVERCROWDING WITH A FOCUS
ON THE SITUATION IN THE REPUBLIC OF SERBIA95
BOOK REVIEWES:
Aleksa Škundrić
ŠKULIĆ, M., KOLAKOVIĆ-BOJOVIĆ, M. & MATIĆ-BOŠKOVIĆ, M. (2024)
THE ROLE OF THE CONSTITUTIONAL COURT OF THE REPUBLIC
OF SERBIA IN PENAL PROCEEDINGS. BELGRADE: INSTITUTE OF
CRIMINOLOGICAL AND SOCIOLOGICAL RESEARCH119
AUTHOR GUIDELINES122

https://doi.org/10.47152/rkkp.63.1.1

UDK: 343.93:343.611

BRAIN MORPHOLOGY IN MASS MURDERERS: AN IN-DEPTH EXPLORATION

Ana Starčevića, Aleksandra Ilićb

Mass murderers often exhibit extreme violent behavior, prompting questions about the neurobiological factors contributing to such actions. This review examines the brain morphology of mass murderers, focusing on structural and functional abnormalities in brain regions involved in aggression, decision-making, and emotional regulation. Neuroimaging studies indicate that mass murderers commonly show dysfunction in key areas, including the prefrontal cortex (PFC), amygdala, orbitofrontal cortex (OFC), and hippocampus regions essential for impulse control, emotional processing, and moral decision-making. Reduced activity and structural abnormalities in the PFC and amygdala impair emotional regulation, empathy, and impulse control, while dysfunction in the OFC contributes to poor decision-making and risk assessment. Furthermore, imbalances in neurotransmitter systems, such as serotonin, dopamine, and norepinephrine, amplify aggression and impulsivity. These neurobiological factors, combined with environmental influences like trauma, suggest that mass murderers may be predisposed to violent behavior due to a complex interplay of brain abnormalities and life experiences. While no single factor can fully explain mass murder, this review highlights the importance of understanding the neuroanatomical underpinnings of violent behavior for developing effective prevention and intervention strategies. Such findings could be useful in the context of the etiology of crime, providing a better understanding of the biological roots of crime, which further influences the improvement of dealing with perpetrators of mass murders in the prison system through the rehabilitation process, despite numerous limitations. Understanding brain morphology in mass murderers is also important from the perspective of

^a Associate Professor at the Faculty of Medicine, University of Belgrade, e-mail: anastarcevic22@gmail.com, ORCID https://orcid.org/0000-0003-2117-4213.

b Associate Professor at the Faculty of Security Studies, University of Belgrade, e-mail: alex.mag.ilic@gmail.com; aleksandra.ilic@fb.bg.ac.rs; ORCID https://orcid.org/0000-0001-7298-2347.

criminal law practice, which forms part of the broader connection between criminal law and neuroscience.

KEYWORDS: brain morphology, neuroimaging, mass murderers, neurocriminology, neurolaw.

Introduction

Mass murderers have long been subjects of fascination and study within criminology, psychology, and neuroscience. These individuals commit acts of extreme violence, often with little regard for the lives they destroy, leaving behind a trail of devastation that raises questions about the psychological and neurobiological factors contributing to such behavior. Mass murders disturb entire societies and leave long-term consequences across many aspects of individual and societal functioning, often appearing suddenly without clear warning signs. While psychological factors such as trauma, psychopathy, and personality disorders are frequently explored in the literature, growing evidence suggests that brain structure and function play a crucial role in determining violent tendencies. This review aims to provide a comprehensive overview of the brain morphology of mass murderers, emphasizing key structural abnormalities, neurochemical imbalances, and neurodevelopmental processes that might contribute to such extreme violent behavior. These findings are critical for a better understanding of the complex etiology of mass murders. For a long time, the neurobiological perspective was underestimated, but it can significantly aid criminal law in both theoretical and practical applications.

Structural/Morphological Brain Abnormalities in Mass Murderers

The concept of the "violent brain" refers to structural abnormalities that may predispose individuals to aggressive and violent behavior. Neuroimaging studies using MRI (Magnetic Resonance Imaging) and PET (Positron Emission Tomography) have uncovered specific brain regions exhibiting dysfunction in violent offenders, including mass murderers (Raine, Buchsbaum and LaCasse, 1997; Kiehl et al., 2019). These regions include the prefrontal cortex, amygdala, orbitofrontal cortex, hippocampus, and other areas involved in emotional regulation, decision-making, and aggression.

Neuroanatomical Brain Substrate of Impulse Control

The prefrontal cortex (PFC) is critical for controlling impulses, regulating emotional responses, and engaging in complex decision-making. Dysfunction in the PFC is one of the most commonly observed features in violent individuals and may be particularly relevant in understanding the neurological underpinnings of mass murder (Koenigs et

al., 2018; Savitz, Hodgkinson and Luckenbaugh, 2017). The PFC, often considered the brain's "executive center," oversees the ability to control emotions, plan behavior, and consider the consequences of actions. A key feature of the PFC in violent offenders is its reduced activity and/or structural volume. Raine, Buchsbaum and LaCasse (1997) conducted a seminal study using PET scans to assess glucose metabolism in the PFC, finding that individuals with antisocial personality disorder (ASPD) a common diagnosis among violent offenders had significantly lower metabolic activity in this region. This suggested that the inability to inhibit aggressive impulses, a hallmark of violent behavior, could be partly attributed to reduced PFC function.

Further neuroimaging studies have confirmed these results, showing that violent offenders especially those diagnosed with ASPD or psychopathy tend to have reduced gray matter volume in the PFC. Yang and Raine (2009) confirmed that offenders with violent tendencies exhibit notable reductions in PFC volume, corresponding to deficits in decision-making, empathy, and social behavior. The lower activity and reduced size of the PFC in violent offenders may impair their ability to process complex moral decisions and control impulsive, aggressive actions, potentially contributing to the risk of committing mass murder.

In addition to structural abnormalities, evidence suggests that the PFC's connectivity to other brain regions, such as the amygdala, is impaired in violent individuals. The PFC normally regulates emotional responses generated by the amygdala, but in individuals with PFC dysfunction, this mechanism can break down. As a result, emotionally charged stimuli may provoke violent responses due to the PFC's failure to inhibit the amygdala's impulsive signals (Davidson, Putnam and Larson, 2000). This impairment in emotional regulation is particularly concerning in mass murderers, who may act impulsively under stress without adequately considering the consequences.

Neuroanatomical Brain Substrate: Amygdala, Its Disruption, and Aggression

The amygdala is responsible for processing emotions, particularly fear, anger, and aggression, and is involved in forming emotional memories. Dysfunction in the amygdala has been implicated in aggression, anxiety, and psychopathy (Savitz, Hodgkinson and Luckenbaugh, 2017). Research suggests that individuals with violent tendencies, including mass murderers, often exhibit amygdala abnormalities that could contribute to their aggressive behavior.

Neuroimaging studies have shown that violent offenders frequently have a smaller or less active amygdala compared to non-violent individuals. Kiehl et al. (2001) used functional MRI (fMRI) to examine the amygdala's response to emotional stimuli in individuals with a history of violent crime, finding significantly reduced acti-

vation in response to emotional faces, particularly those expressing fear or distress. This blunted emotional response could be a key factor in understanding why mass murderers may fail to empathize with their victims, facilitating violent behavior without emotional distress or remorse.

Additionally, structural MRI studies have identified reductions in amygdala volume in psychopathic offenders, a group often linked to mass murderers. The amygdala's role in emotional learning and empathy means that its dysfunction can impair the ability to recognize others' emotional states, potentially contributing to a lack of empathy and an increased willingness to engage in extreme violence, such as mass murder.

In individuals with psychopathy, the combination of amygdala dysfunction and PFC impairments creates a potent neural substrate for violence. The weakened PFC is less able to inhibit aggressive impulses from the amygdala, leading to a failure of emotional regulation that may explain why these individuals engage in violence without remorse or understanding of the emotional harm caused.

Neuroanatomical Brain Substrate of Decision-Making

The orbitofrontal cortex (OFC) plays a key role in decision-making, risk assessment, and emotional regulation. Damage or dysfunction in the OFC has been associated with impulsivity, poor decision-making, and aggressive behavior (Bechara and Damasio, 2021). The OFC's role in evaluating the consequences of actions is essential for socially appropriate behavior, and when compromised, individuals may act impulsively or violently without considering the ramifications.

Bechara, Damasio and Damasio (2000) researched patients with OFC damage, finding they exhibited a poor ability to make socially appropriate decisions, often disregarding potential negative consequences. Such individuals were more likely to engage in reckless and violent behaviors, suggesting that OFC dysfunction could contribute to violent tendencies, especially when combined with other brain abnormalities.

Further research supports this connection. Damasio et al. (1994) showed that individuals with OFC damage are more likely to make socially inappropriate or impulsive decisions, demonstrating a reduced ability to process emotional consequences. In mass murderers, this lack of consideration for the social and moral consequences of violence may be linked to OFC dysfunction.

The OFC's connections to the PFC and amygdala further complicate its role in violent behavior. While the PFC regulates emotional responses and the amygdala generates emotional reactions, the OFC integrates this information for decision-making. Damage to the OFC may impair the ability to evaluate emotional signals properly, leading to socially inappropriate or violent behavior.

Neuroanatomical Brain Substrate of Memory Processing

The hippocampus, traditionally known for memory consolidation and spatial navigation, also regulates emotional responses and stress. In violent offenders, particularly those with trauma histories, the hippocampus often exhibits structural abnormalities, such as shrinkage or atrophy, which may contribute to aggressive tendencies.

The hippocampus interacts with the amygdala to regulate emotional responses. When damaged or underdeveloped, individuals may experience heightened emotional reactivity or fail to process emotional memories healthily, potentially leading to impulsive and aggressive behavior (Savitz, Hodgkinson and Luckenbaugh, 2017). Bremner et al. (1995) demonstrated that individuals with post-traumatic stress disorder (PTSD), often resulting from early-life trauma, exhibit hippocampal shrinkage. This reduction has been linked to an inability to process stressful events effectively, increasing violence risk. Mass murderers, many of whom have experienced extreme childhood trauma, may have similar hippocampal abnormalities influencing their emotional regulation and aggression.

Brain Neurochemical Imbalances: Contributions to Aggression and Violence

The brain's neurochemical systems are crucial in determining behavior. Neurotransmitters such as serotonin, dopamine, and norepinephrine regulate mood, aggression, and impulsivity (Viding and McCrory, 2019). Dysregulation in these systems is commonly observed in violent offenders and mass murderers, providing further insight into the neurobiological underpinnings of violent behavior.

Serotonin and Impulse Control

Serotonin regulates mood, aggression, and impulse control. Low serotonin levels are strongly linked to increased aggression, impulsivity, and violent behavior. Violent offenders, including mass murderers, often exhibit reduced serotonin activity, contributing to their inability to control aggressive impulses. Virkkunen et al. (1994) demonstrated that offenders with low serotonin levels are more prone to aggressive outbursts, supporting serotonin's role in regulating violent behavior.

Dopamine and Reward Sensitivity

Dopamine, involved in the brain's reward system, is tied to sensation-seeking, motivation, and aggression. Dysregulation may contribute to impulsivity, risk-taking, and violence. Buckholtz and Meyer-Lindenberg (2008) found that individuals with heightened dopamine activity are more likely to engage in impulsive and vio-

lent behaviors, potentially driven by an exaggerated sense of reward or dominance, which may motivate some mass murderers.

Norepinephrine and Emotional Reactivity

Norepinephrine regulates stress responses, and increased activity can heighten emotional reactivity. Stanley and Siever (1991) suggest that elevated norepinephrine levels are associated with heightened emotional lability and aggression, particularly under stress. For mass murderers, this sensitivity could make them more reactive to perceived threats, pushing them toward violent outbursts.

The Contribution of Neurocriminology in Understanding the Mass Murder Phenomenon

Neurocriminology applies neuroscience techniques to explore the causes and cures of crime, seeking correlations between brain characteristics and criminal behavior (Petoft, 2015). It examines structural and functional impairments in brain circuits related to moral decision-making and impulse control in various offenders, including violent and psychopathic individuals. Recent research also sheds light on free will and moral responsibility (Dash, Padhi and Das, 2020). Neurocriminologists by considering, pondering and interpreting brain-imaging, endeavor to prove relative offenders responsibility. There are multiple neuroscientific documents that imply the truth of their claims (Petoft, 2015, p. 55).

Related to the claims that frontal lobe and amygdala dysfunction are involved in violent crime, some reserchers contend that particular types of neural activation patterns within these and related regions give rise to specific violent crimes. Further, that could lead to the establishment the biological bases for all types of human violence, including different forms of mass murders (school shootings, bombings, terrorism incidents...) or unique "neural topography" for every crime from sadistic murders to terrorism act (Pustilnik, 2009, pp. 207, 208).

Influences on the Judicial System - Neurolaw Perspective

Neurocriminology interfaces with the judicial system at three levels: punishment, prediction, and prevention (Glenn and Raine, 2014). Authors advocate for neurolaw, a discipline combining neuroscience and law (Petoft, 2015; Shen, 2016; Dash, Padhi and Das, 2020). Pustilnik (2009) suggests neuroscience could contribute to criminal law by informing models of emotion, behavior, and rehabilitation strategies. In Serbia, post-Ribnikar case debates question whether lowering the criminal liability

age below 14 is justified, given the unfinished brain development in minors a topic beyond this paper's scope but critical to neurolaw.

One of the most important question is how current neuroscience might inform criminal law discourse about regulating violence (Pustilnik, 2009). Theoretically, the system of criminal sanctions which consists of different form of reaction to crimes depends on our knowledge of human behaviour and how it can be controlled through execution of criminal sanctions. If we put more attention to the problemacy of brain morphology and its influences on behaviour of specific perpetuators of crime, as mass murderers, we will might change, especially in the practical manner in judicial procedure, how we react on such crimes. It appears as essential to clarify the contributions of both pathology and normalcy to the commission of violent offenses. It has been suggested that as neuroscience begins to offer a more detailed and specific account of the physical processes that can lead to irresponsible or criminal behaviour, the public perception of responsibility may begin to change in the same way that public viewpoints on addiction have shifted from addiction as a failure of personal responsibility towards addiction as a disease (Glenn and Raine, 2014, p. 59).

Most offenders will not have a history of brain imaging studies revealing structural deficits, but rather have evidence of global cognitive impairment and some neuropathology and cognitive dysfunction. Even if they are examined with structural imaging techniques, such as MRI, EEG, and CAT scan during the pretrial phase, results may not divulge evidence of impairment. Essentially, cognitive dysfunction can be lost in a structure that appears normal via neuroimaging data (Fabian, 2010, p. 218). The connection between neurological and neuropsychological impairment and aggression and violence is notable, and the background histories of many murder defendants breed impairments in these areas. These cognitive impairments, coupled with other biopsychosocial risk factors, may be linked to an individual's capacity to inhibit and control their behavior. Accordingly, some capital or lifeprison defendants may lack the inherent free-will of human behavior due to a shortage in their neural circuitry resources, marked cognitive deficits, and stressful and threatening environmental situations (Pustilnik, 2009, p. 185).

Discussion

Understanding the neurobiological basis of mass murder is a complex and multifaceted challenge that requires a multidisciplinary approach, incorporating neuroscience, psychology, and criminology. While psychological, social, and environmental factors undoubtedly influence violent behavior, this review emphasizes the critical role that brain structure and neurochemistry play in the predisposition

toward extreme violence. Neuroimaging studies and neuropsychological research consistently reveal structural and functional abnormalities in key brain regions involved in aggression, decision-making, and emotional regulation, suggesting that mass murderers may exhibit distinct neurobiological profiles (Blair et al., 2022). However, it is important to recognize that no single brain abnormality can account for the entirety of mass murder, and these abnormalities likely interact with genetic predispositions and environmental factors to shape violent behavior. At the core of our understanding of mass murderers' brain function lies the prefrontal cortex (PFC), amygdala, and orbitofrontal cortex (OFC) regions crucial for impulse control, moral decision-making, and emotional regulation. The prefrontal cortex, responsible for executive functions such as planning, decision-making, and behavioral inhibition, is often found to be underactive or structurally diminished in individuals who engage in violent behavior. Studies such as those by Raine, Buchsbaum and LaCasse (1997) and Yang have shown that mass murderers and violent offenders frequently display reduced PFC activity, which can impair their ability to make reasoned decisions and regulate emotional responses. When the PFC fails to suppress aggressive impulses, individuals may act impulsively, without considering the consequences of their actions, which is a key feature in many violent crimes, including mass murder. The amygdala, responsible for processing emotions like fear, anger, and aggression, is another critical region implicated in violent behavior. Neuroimaging studies indicate that reduced amygdala volume or hypoactivity is common among violent offenders (Kiehl et al., 2001). The amygdala is vital for recognizing and responding to emotional cues, and dysfunction in this region may impair the ability to feel empathy or react appropriately to others' distress. For mass murderers, this lack of emotional connection to victims can make extreme violence feel less morally or emotionally significant, facilitating acts of dehumanization and aggression without remorse. Similarly, dysfunction in the orbitofrontal cortex (OFC), which helps evaluate consequences and guide socially appropriate behavior, is associated with poor decision-making and impulsivity. Damage to the OFC, as demonstrated by Bechara, Damasio and Damasio (2000), impairs individuals' ability to assess the long-term outcomes of their actions. For mass murderers, the failure to evaluate the moral, social, and legal consequences of their behavior can contribute to the planning and execution of extreme acts of violence. Furthermore, the OFC's role in integrating emotional signals from the amygdala with higher-level cognitive functions underscores the importance of its interaction with the PFC in regulating aggression. When the OFC is dysfunctional, the result may be disconnection between emotional impulses and rational behavior, leading to impulsive and reckless violent acts.

In addition to structural brain abnormalities, neurochemical imbalances also play a crucial role in violent behavior. Serotonin, dopamine, and norepinephrine are neurotransmitters that regulate mood, aggression, and impulse control. Dysregulation in these systems can increase susceptibility to aggression, impulsivity, and emotional dysregulation, all of which are common in violent offenders, including mass murderers.Low serotonin levels are consistently linked to increased aggression and impulsivity. Research by Virkkunen et al., (1994) and Stanley and Siever (1991) found that individuals with reduced serotonin activity are more likely to engage in violent behavior, particularly under stress. Serotonin helps regulate mood and emotional responses, and its dysfunction can contribute to an inability to control aggressive impulses. For mass murderers, this impairment in serotonin regulation may explain their inability to moderate intense emotional states, leading to violent outbursts in response to perceived threats or stressors. Dopamine, which is central to the brain's reward system, is another neurotransmitter implicated in violent behavior. Dysregulation of dopamine systems has been associated with increased impulsivity, risk-taking, and sensation-seeking behaviors (Buckholtz and Meyer-Lindenberg, 2008). Mass murderers, particularly those with psychopathic tendencies, may be driven by an exaggerated response to reward-related stimuli, such as feelings of power, dominance, or notoriety gained from committing violence. This heightened sensitivity to rewards may reduce the perception of consequences and facilitate violent acts motivated by the desire for attention, control, or emotional release. The reinforcement of violent behavior through dopamine release could make extreme acts of violence more appealing to individuals predisposed to aggression. In addition to serotonin and dopamine, norepinephrine, which regulates the body's response to stress, plays a critical role in aggression. Increased norepinephrine activity heightens emotional reactivity, which can contribute to impulsive and violent behavior, particularly under conditions of stress. Stanley and Siever (1991) found that heightened norepinephrine levels are associated with increased aggression and emotional lability. For mass murderers, this heightened emotional reactivity may contribute to the rapid escalation of violence in response to perceived insults or emotional triggers, fueling aggressive acts without appropriate reflection or moral consideration. While brain structure and neurochemistry provide significant insights into the predisposition for violent behavior, it is essential to consider how these biological factors interact with genetic predispositions and environmental influences. Genetic factors, such as variations in the MAOA gene, which regulates serotonin activity, have been shown to increase the risk for impulsive aggression in individuals exposed to early-life stress (Kiehl et al., 2019). These genetic factors, however, do not operate in isolation; rather, they interact with environmental

stressors, including childhood trauma, abuse, or exposure to violence, to influence brain development and behavior. For example, early exposure to trauma can alter the structure and function of the hippocampus and amygdala, regions involved in emotional regulation and memory processing (Bremner et al., 1995). These alterations can lead to increased emotional reactivity and impair the ability to regulate aggression, potentially heightening the risk of violent behavior.

Mass murderers, many of whom have experienced severe childhood trauma, may have abnormal hippocampal or amygdalar structures that contribute to their violent tendencies. The interaction between genetic predisposition and environmental stressors thus creates a "perfect storm" of neurobiological factors that increase the likelihood of extreme violent behavior. While genetics and environment play a significant role in shaping brain function, it is important to recognize that societal and cultural factors also influence the development of violent behavior. Exposure to violent media, societal glorification of aggression, and easy access to firearms can amplify the risk of violent behavior in individuals already predisposed to aggression. These cultural and social influences interact with the neurobiological vulnerabilities to increase the likelihood of mass murder, particularly in individuals who are already struggling with emotional dysregulation or impaired impulse control.

The modern paradigmatic story linking violent criminality to brain disorder is the tragic story of Charles Whitman, an Eagle Scout, scholarship student at the University of Texas, who murdered his wife, mother, and fourteen students at the University of Texas on August 1, 1966. Whitman began to experience headaches and personality changes about a year before his attacks; he believed that he was suffering from a neurological problem and sought medical and law-enforcement help (including asking the police to arrest him earlier in the day that he committed his murders; the police were obliged to decline because Whitman had not yet committed any crime). A post-mortem shortly after Whitman was shot by police showed a large tumor compressing Whitman's amygdaloid nucleus (Pustilnik, 2009).

Limitations and Future Research Directions

Although the neurobiological framework outlined in this review offers valuable insights into the mechanisms underlying mass murder, it is important to recognize several limitations. First, most of the studies reviewed involve violent offenders more broadly, rather than focusing specifically on mass murderers. This gap in research highlights the need for further studies that directly examine the neurobiological profiles of mass murderers to determine whether they differ significantly from other violent offenders.

Moreover, the research on neurobiological factors often relies on correlational data, making it difficult to establish causal relationships between brain abnormalities and violent behavior. Longitudinal studies that track individuals over time and examine the interactions between genetic, neurobiological, and environmental factors would provide a more comprehensive understanding of the risk factors for mass murder. Despite the fact that it is very difficult to maintain the observed group over a longer period of time, a significant effort should be made to realize that goal for a more complete understanding of the criminogenesis of mass murders as well as other forms of severe violence.

Importance of collaboration between neuroscience and law, especially in complex criminal cases such mass murders are, has to be improved in future, in different ways. On the one side that means involvment in the process of improving the ways of punishment in such extreme cases. Secondly, such collaboration is important in criminal proceedings in the context of proving and better understanding of personal dynamic of these offenders. Also, such interdisciplinary arrangment is essential for rehabilitation process of such offenders.

Finally, much of the research to date has focused on identifying brain abnormalities and neurochemical imbalances, but less attention has been given to interventions that could help individuals with these vulnerabilities. Future research should explore how neurobiological findings can inform preventive strategies and therapeutic interventions for individuals at risk of extreme violence. This could include the development of early identification tools, targeted treatments for impulse control and aggression, and public health strategies aimed at addressing the root causes of violence, such as childhood trauma and social isolation. Beside these pure preventive strategies, more should be done in the context of penitentiary treatment of such offenders. With having in mind all limitations of that undertaking, because even with awareness of weak possibilities to achieve any improvement in relation to that one person which committed act of extreme violence, such action might be very useful in making better strategies which aim is to prevent mass and other forms of severe murders.

Conclusion

The neurobiological basis of mass murder is complex and multifaceted, involving structural and functional brain abnormalities, neurochemical dysregulation, and the interplay between genetic and environmental factors. Research on brain morphology in mass murderers reveals consistent patterns of dysfunction in regions such as the prefrontal cortex, amygdala, orbitofrontal cortex, and hippocampus. These abnormalities, coupled with neurotransmitter imbalances in serotonin,

dopamine, and norepinephrine systems, suggest that neurobiological factors play a critical role in shaping violent tendencies. Understanding the neurobiological factors that contribute to mass murder requires an integrated approach that considers both structural and functional brain abnormalities as well as neurochemical imbalances. Dysfunction in key brain regions such as the prefrontal cortex, amygdala, orbitofrontal cortex, and hippocampus, combined with neurochemical dysregulation, may create a potent substrate for violent behavior. While not all mass murderers exhibit these brain abnormalities, these findings provide critical insights into the biological factors that may underlie extreme acts of violence. Future research into the neurobiology of mass murderers could help identify potential early intervention strategies and contribute to more effective preventative measures.

While no single brain abnormality can fully explain the complex behaviors associated with mass murder, understanding the structural and functional aspects of the brain involved in emotional regulation, decision-making, and aggression provides crucial insights into the risk factors for extreme violence. Continued research in neuroimaging and neurochemistry holds the potential to improve our understanding of violent behavior, ultimately informing prevention strategies and intervention programs for individuals at risk. The connection between neurological and neuropsychological impairment and aggression and violence is notable, and the background histories of many murder defendants breed impairments in these areas. These cognitive impairments, coupled with other biopsychosocial risk factors, may be linked to an individual's capacity to inhibit and control their behavior. Accordingly, some murder defendants may lack the inherent free-will of human behavior due to a shortage in their neural circuitry resources, marked cognitive deficits, and stressful and threatening environmental situations (Fabian, 2010).

LITERATURE

- Bechara, A. and Damasio, A. R. (2021) 'The orbitofrontal cortex and violence: A model of impaired decision-making in antisocial behavior'. *Frontiers in Psychology, 12*, 629442. https://doi.org/10.3389/fpsyg.2021.629442
- Bechara, A., Damasio, A. R. and Damasio, H. (2000) 'Emotion, decision making, and the orbitofrontal cortex'. *Cerebral Cortex*, *10*(3), 295–307. https://doi.org/10.1093/cercor/10.3.295
- Blair, R. J. R. et al. (2022) 'Structural brain abnormalities and antisocial behavior: A review of neuroimaging studies'. *Psychiatric Clinics of North America*, 45(2), 249–264. https://doi.org/10.1016/j.psc.2021.12.004
- Bremner, J. D. et al. (1995) 'MRI-based measurement of hippocampal volume in patients with combat-related posttraumatic stress disorder'. *American Journal of Psychiatry*, 152(7), 973–981. https://doi.org/10.1176/ajp.152.7.973
- Buckholtz, J. W. and Meyer-Lindenberg, A. (2008) 'MAOA and the neurogenetic architecture of human aggression'. *Trends in Cognitive Sciences*, *12*(3), 120–129. https://doi.org/10.1016/j.tics.2007.12.006
- Damasio, H. et al. (1994) 'The return of Phineas Gage: Clues about the brain from the skull of a famous patient'. *Science*, 264(5162), 1102–1105. https://doi.org/10.1126/science.8178168
- Dash, S. S., Padhi, C. H. and Das, B. (2020) 'Neurolaw: A new horizon of neuroscience'. *European Journal of Molecular & Clinical Medicine*, 7(10), 91–98.
- Davidson, R. J., Putnam, K. M. and Larson, C. L. (2000) 'Dysfunction in the neural circuitry of emotion regulation—A possible prelude to violence'. *Science*, *289*(5479), 591–594. https://doi.org/10.1126/science.289.5479.591
- Fabian, J. M. (2010) 'Neuropsychological and neurological correlates in violent and homicidal offenders: A legal and neuroscience perspective'. *Aggression and Violent Behavior*, 15(3), 209–223. https://doi.org/10.1016/j.avb.2009.12.004
- Glenn, A. L. and Raine, A. (2014) 'Neurocriminology: Implications for the punishment, prediction and prevention of criminal behaviour'. *Nature Reviews Neuroscience*, *15*(1), 54–63. https://doi.org/10.1038/nrn3640
- Kiehl, K. A. et al. (2019) 'Neuroanatomica and neurochemical abnormalities in violent offenders: A study using functional and structural MRI'. *Psychiatry Research: Neuroimaging*, *281*, 48–56. https://doi.org/10.1016/j.pscychresns.2019.05.002

- Kiehl, K. A. et al. (2001) 'Limbic abnormalities in affective processing by criminal psychopaths as revealed by functional magnetic resonance imaging'. *Biological Psychiatry*, 50(9), 677–684. https://doi.org/10.1016/S0006-3223(01)01222-7
- Koenigs, M. et al. (2018) 'Prefrontal cortex and the regulation of aggression: Insights from neuroimaging studies in violent offenders'. *Cerebral Cortex*, 28(5), 1684–1693. https://doi.org/10.1093/cercor/bhx097
- Petoft, A. (2015) 'Neurolaw: A brief introduction'. *Iranian Journal of Neurology, 14*(1), 53–58.
- Pustilnik, A. C. (2009) 'Violence on the brain: A critique of neuroscience in criminal law'. *Wake Forest Law Review*, 44(1), 183–238.
- Raine, A., Buchsbaum, M. and LaCasse, L. (1997) 'Brain abnormalities in murderers indicated by positron emission tomography'. *Biological Psychiatry*, 42(6), 495–508. https://doi.org/10.1016/S0006-3223(96)00362-9
- Savitz, J., Hodgkinson, C. A. and Luckenbaugh, D. A. (2017) 'Amygdala, prefrontal cortex and aggression: The role of the cortico-limbic circuit in violent behavior'. *Current Opinion in Psychiatry*, 30(1), 34–42. https://doi.org/10.1097/YCO.0000000000000315
- Shen, F. X. (2016) 'The overlooked history of neurolaw'. *Fordham Law Review*, 85(2), 667–695.
- Stanley, B. and Siever, L. J. (1991) 'Neurobiological correlates of aggression'. *Psychiatric Clinics of North America*, 14(3), 569–586.
- Viding, E. and McCrory, E. J. (2019) 'Neurobiological contributions to understanding antisocial behavior'. *Child and Adolescent Psychiatric Clinics of North America*, 28(4), 607–619. https://doi.org/10.1016/j.chc.2019.05.009
- Virkkunen, M. et al. (1994) 'CSF biochemistries, glucose metabolism, and diurnal activity rhythms in alcoholic, violent offenders, fire setters, and healthy volunteers'. *Archives of General Psychiatry*, *51*(1), 20–27. https://doi.org/10.1001/archpsyc.1994.03950010020003
- Yang, Y. and Raine, A. (2009) 'Prefrontal structural and functional brain imaging findings in antisocial, violent, and psychopathic individuals: A meta-analysis'. *Behavioral Sciences & the Law*, 27(1), 1–19. https://doi.org/10.1002/bsl.850
- © 2025 by authors



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

https://doi.org/10.47152/rkkp.63.1.2 UDK: 343.2/.7:342.82(497.11) RECEIVED: 30 March 2025 ACCEPTED: 8 May 2025

CRIMINAL LAW PROTECTION OF THE ELECTORAL RIGHTS IN THE CONTEMPORARY SERBIAN CRIMINAL LEGISLATION

Ivana P. Bodrožića

Free and fair elections, as well as electoral rights which are closely related to them, are considered to be one of the keystone elements of the contemporary democratic societies. Democracy as a value is highly important to every national and EU legislation. It can be promoted and safeguarded through several mechanisms, but the most important parts of its protection undeniably are free elections and legality and transparency in the field of electoral rights as a part of a wider concept of political rights.

Electoral rights enjoy a complex system of protection that includes constitutional, administrative, misdemeanor and criminal law protection.

Due to its importance for the overall political system of the state, understood in the context of freedom of expression of citizens' will, freedom of activity and prevention of violations and abuses of electoral rights, the legal framework for the protection of electoral rights also includes their criminal law protection.

In the paper, the author tries to point out the general characteristics of the conception of the criminal law protection of electoral rights in the legislation of the Republic of Serbia by using dominantly the normative method, the method of generalizing abstraction and other methods of formal logic, accompanied by the classic analysis of certain criminal offences from this category.

In the conclusion, it is underlined that criminal law has to be regarded only as a last resort within the complete system of protection of electoral rights, but with the strong role in a processes of achieving the desired degree of crime prevention, as an overall objective of criminal law protection of democratic elections.

KEYWORDS: criminal law protection of electoral rights, democracy, free and fair elections, electoral rights.

^a Associate Professor, University of Criminal Investigation and Police Studies, Belgrade, e-mail: ivana.bodrozic@kpu.edu.rs. ORCID https://orcid.org/0000-0001-5010-7832.

Introduction

Recognizing the importance of fair and free elections for a democratic society, the paper analyzes the criminal protection mechanisms of precisely these qualities of citizens' electoral rights. Elections themselves cannot represent a guarantee of democracy, but must be provided with high-quality and efficient legal regulation, followed by the strictest instruments of state reaction to behavior in this field that has the quality of criminal behavior. In the wider concept, the system of electoral justice can be recognized as a system of mechanisms for ensuring that actions and procedures employed in the electoral processes are consistent with the nationally, regionally and internationally relevant documents and laws in assuring certain general and overall objectives for the prevention of electoral disputes. This system represents a key instrument of the rule of law. At the same time, it represents the ultimate guarantee of respect for the democratic principle of holding free, fair and genuine elections. The general objectives of the electoral justice system are to prevent and identify electoral irregularities, while providing the means and mechanisms to rectify these irregularities and punish the perpetrators (Orozco-Henriquez, 2010, p. 5). Criminal law within this system of mechanisms has the character of ultima ratio, but also the importance of the most powerful instrument in the state's reaction to the abuse of electoral rights.¹

How it is conceived, what it entails and how wide a protection zone is covered by the criminal law protection of democratic elections and the related electoral rights of citizens are the starting research questions in this paper. The issues of the application of criminal law are inextricably linked with issues of interpretation of provisions of national legislation. The issue of electoral rights, in the broader sense of their criminal law protection, is based on understanding the essence of the norm and its basic direction. The normative analysis of the criminal offences against electoral rights² therefore represents the pivot of their applicability. It refers to the efforts providing this category of political rights with the strongest form of legal protection - criminal law protection. The analysis of the legal features of criminal acts can therefore be viewed in a strictly linguistic sense, but also in a teleological sense³. From a teleological point of view, the

¹ Criminal law, in general, as the *ultima ratio societatis*, is an instrument of the state's reaction to criminality, and as such it is based on the legal-dogmatic principles of its own exceptionality, subsidiarity and fragmentation (Bodrožić, 2020).

² Electoral criminal offences can be defined as an unlawful or wrongful conduct involving acts or omissions that are subject to criminal punishment and/or administrative penalty, for which Penalties for criminal offences committed in electoral processes are generally imposed by a criminal court (Orozco-Henriquez, 2010, pp. 12-15).

³ About the peculiarities of the linguistic formatting of legal norms, as well as about the peculiarities of the legal language, which must be precise and clear so that the addressee of the norm could understand it adequately before applying it see more (Radojković - Ilić, 2024; *Nomotehnika i pravničko rasuđivanje*, 2016, pp. 25-34).

place and role of criminal law in this area, which is necessarily fragmentary and accessory, should be determined. The aforementioned should also answer the questions of whether and to what extent the criminal law standards from the relevant international documents, which proclaim and protect the electoral rights and electoral will of citizens, have been accepted as prerogatives of democracy.

Therefore, the main purpose of this paper is to provide a scientifically based analysis of the normative characteristics of crimes against electoral rights in the contemporary Serbian criminal law.

The paper consists of introductory considerations, in which the basic research question, methodological framework and structure of the work are indicated, followed by two main parts of the article - general characteristics of criminal acts against electoral rights and the analysis of particular selected, individual incriminations.

The paper will apply the dominantly normative method and methods of formal logic, with the ultimate goal of answering the basic research question in the paper: whether and in what way, in the context of the legislative techniques used, the most popular electoral rights are protected from the strongest forms of their violation or endangerment.

In the conclusion, it is underlined that criminal law has to be regarded only as a last resort within the complete system of protection of electoral rights, but with the strong role in a processes of achieving the desired degree of crime prevention, as an overall objective of criminal law protection od democratic elections.

General characteristics of the criminal law protection of electoral rights

Electoral rights represent the basic human rights and freedoms of the first generation. They refer to the political rights and freedoms guaranteed by the Constitution of the Republic of Serbia, Art. 52 (*Constitution of the Republic of Serbia*, 2006) providing constitutional assurance of citizens' right to vote. Free elections represent the assumption of the democratic nature of the constitutional order of the state as a whole, and are related to the legitimacy or lack of legitimacy of the government.⁴

Electoral rights imply a system composed of several key elements. They include active and passive suffrage, the right to stand for election, and the right to recall elected representatives. Active suffrage implies the right of every citizen to elect representatives to representative bodies. Passive suffrage implies the right of every citizen to be elected as a representative to representative bodies. The basis for exercising the right

⁴ The election procedure is regulated by a set of legal regulations that regulate the subject of electoral law. Electoral law includes "a set of rights and duties of participants in elections, as well as all regulations that govern elections" (Pajvančić, 2001, p. 24).

to vote is also a special right - the right to stand for election, which is understood as the right of a citizen to be proposed as a candidate for representative bodies. The right to recall elected representatives derives from the previous electoral rights, which implies that citizens can, due to dissatisfaction with the work of elected representatives, withdraw the previously given trust and recall their representatives (Đorđević and Bodrožić, 2024, p.75)

Electoral rights are guaranteed at the international level by a series of regulations, the most important of which are the European Convention for the Protection of Human Rights and Fundamental Freedoms (*Law on the Ratification of the European Convention for the Protection of Human Rights and Fundamental Freedoms*, 2015) and the International Covenant on Civil and Political Rights (*Law on the Ratification of the International Covenant on Civil and Political Rights*, 1971).⁵

At the level of national sources, electoral rights first appear as a constitutional category. Art. 52 of the Constitution of the Republic of Serbia stipulates that every adult citizen of the Republic of Serbia has the right to vote and to be elected. The right to vote is defined as universal and equal, elections as free and direct, and voting as secret and personal. The same provision establishes the legal protection of electoral rights in accordance with the law.

The laws that more closely regulate the electoral system as a whole are the Law on the Election of the President of the Republic,⁶ the Law on the Election of Members of Parliament⁷, the Law on Referendum and People's Initiative⁸, and others⁹.

For example Art. 3 of the European Convention for the Protection of Human Rights and Fundamental Freedoms guarantees the right to free elections in such a way that the High Contracting Parties are obliged to hold free elections through a secret ballot at appropriate time intervals, under conditions that ensure free expression of the people's choice in the election of legislative bodies, and Art. 25 of the International Covenant on Civil and Political Rights stipulates that every citizen has the right and opportunity, without any discrimination and unfounded limitations: (a) to take part in the conduct of public affairs directly or through freely chosen representatives; (b) to vote and to be elected at genuine periodic elections which shall be by universal and equal suffrage and shall be held by secret ballot, guaranteeing the free expression of the will of the electors; (c) to have access, on general terms of equality, to public services in their country (*Legal Protection of Electoral Rights within the Criminal Justice System*, 2024:9).

⁶ Law on the Election of the President of the Republic (2009), Official Gazette of RS, nos. 111/07 and 104/09 - other law.

⁷ Law on the Elections of Members of Parliament (2020), Official Gazette of RS, nos. 35/00, 57/03 - CC, 72/03 - other law, 18/04, 85/05 - other law, 101/05 - other law, 104/09 - other law, 28/11 - CC, 36/11, 12/20 and 68/20.

 $^{^8}$ Law on the Referendum and the people's initiative, (2021), Official Gazette of RS, nos. 111/21 and 119/21.

⁹ Law on the Unified Electoral Roll (2011), Official Gazette of RS, nos. 104/09 and 99/11); Law on Local Elections (2020), Official Gazette of RS, nos. 129/07, 34/10 - US, 54/11, 12/20, 16/20 - Authentic Interpretation and 68/20; Law on Administrative Disputes (2019), Official Gazette of RS, no. 111/09; Law on Financing Political Activities (2019), Official Gazette of RS, nos. 43/11, 123/14 and 88/19, etc.

Electoral rights enjoy a complex system of protection that includes constitutional, administrative, misdemeanor, and criminal law protection.¹⁰

Due to its importance for the overall political system of the state, understood in the context of the freedom of expression of citizens' will, freedom of activity and the prevention and elimination of violations and abuse of electoral rights, the legal framework for the protection of electoral rights also includes their criminal law protection.

Criminal law protection of electoral rights is not comprehensive.¹¹ It is markedly fragmented and represents an adequate mechanism for protecting only the most significant goods and values related to the electoral process from the attacks that contain the highest degree of social danger. Criminal law protects the active and passive right of citizens to vote, the lawful implementation of regulations on elections, referendums or the declaration of the recall of elected representatives, in the context of their regularity in cases of the use of coercion, fraudulent activities, forgery or bribery.

Criminal offences against electoral rights are provided for under *Chapter XV of the Criminal Code* (CC)¹², in Articles 154-162. There are nine incriminations, namely:

- 1. Violation of the Right to Run in Elections, Art. 154,
- 2. Violation of the right to vote, Art. 155,
- 3. Giving and Accepting Bribes in connection with Voting, Art. 156,
- 4. Abuse of the right to vote, Art. 157,
- 5. Compiling of Inaccurate Voters' Lists, Art. 158,
- 6. Prevention of Voting, Art. 159,
- 7. Violation of the secrecy of voting, Art. 160,
- 8. Ballot and Election Fraud, Art. 161 and
- 9. Destroying of Documentation on Voting, Art. 162.

od the legal protection. As Karličić stipulates, there are three types or levels of legal protection. The first and basic type of legal protection involves remedies during the election procedure, a legal procedure sui generis, to which the rules of administrative procedure are applied accordingly, i.e. subsidiarily. The second level of protection is judicial protection before administrative courts based on appeals by authorized entities participating in the election. The third type of legal protection is the penal protection which takes place in two ways - through criminal law and misdemeanour law protection of electoral rights (Karličić, 2023, pp. 204-221).

¹¹ Protection of electoral rights is crucial for the establishment of a legal framework that contributes to implementation of democratic elections. Therefore, not only must there be mechanisms for effective remedies to protect electoral rights, but there should be sufficient criminal or administrative penalties to prevent violations of the law and electoral rights (*Guidelines for Reviewing a Legal Framework for Elections*, 2018, p.72).

¹² Criminal Code (2024), Official Gazette of RS, no. 85/2005, 88/2005 - corrected, 107/2005 - corrected, 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, 35/2019 and 94/2024.

The general protected object of this chapter of criminal offences refers to electoral rights. The concept of elections and referendums is defined in the provisions of Art. 112, paragraphs 13 and 14 of the CC. This is an authentic interpretation given by the legislator in a single common provision entitled - Meaning of Terms for the Purpose of this Code. Elections are the elections for the Assembly of Serbia, the President of the Republic of Serbia, local self-government organs and other elections called and conducted pursuant to the Constitution and law (*Constitution of the Republic of Serbia*, 2006, Art. 112, para. 13). A referendum is a declaration of citizens to decide upon issues determined by the Constitution and law (*Constitution of the Republic of Serbia*, 2006, Art. 112, para. 14).

The perpetrator of most criminal offences may be a person who has appropriate functions in the conduct of the election process or referendum, or other persons who perform duties related to elections or voting. Criminal offences may be committed by any individual.

The subjective characteristic of all criminal acts is intent.

All criminal offences under this chapter are prosecuted *ex officio* (Karličić, 2023; Simonović, 2010, p. 248).

Although the Serbian criminal legislation has been in the process of continuous, even too frequent changes since 2006 (Bodrožić, 2020; Bodrožić, 2022, pp. 109-112), in the context of one systemic regulation, this group of criminal offences was not subject to amendment, except in the context of their addition during the adoption of the CC, which compared to the previous regulations introduced two new incriminations into this group of criminal offences - Giving and Accepting Bribes in connection with Voting, Art. 156 and Compiling of Inaccurate Voters' Lists, Art. 158.

Criminal offences are defined in the way to correspond to the emerging forms of unlawful practice in the preparation, organization and conduct of elections. In this sense, no objections can be raised in the context of negative criminal-political tendencies, excessive tightening of repression or punishment, in punishing in the pre-zone of endangering the protected value (Bodrožić, 2020; Bodrožić and Milošević, 2023).

Classification of the chapter

The internal classification of the chapter on criminal offences against electoral rights can be made with regard to the object of the commission of a criminal act, i.e. whether the commission is directed towards the violation or endangerment of

the aforementioned rights.¹³ Thus, criminal offences against the right to stand for election and vote, criminal offences of obstruction of voting and criminal offences of falsification of voting results can be differentiated.

- a) Criminal offences against the right to stand for election and vote
 - 1. Violation of the Right to Run in Elections,
 - 2. Violation of the right to vote,
 - 3. Giving and Accepting Bribes in connection with Voting,
 - 4. Abuse of the right to vote
 - 5. Compiling of Inaccurate Voters' Lists
- b) Criminal offences of obstruction of voting
 - 1. Prevention of Voting
 - 2. Violation of the secrecy of voting
- c) Criminal acts of falsification of voting results
 - 1. Ballot and Election Fraud
 - 2. Destroying of Documentation on Voting

Selected incriminations

Violation of the Right to Vote (Article 155)

The criminal offence of violation of the right to vote has a basic and a more serious form. The basic form of the criminal offence is provided for in paragraph 1, and is committed by a person who, with the intention of preventing another person from exercising the right to vote, unlawfully fails to register another person on the voter list, deletes him or her from the voter list, or otherwise unlawfully prevents or hinders him or her from voting.

¹³ The grouping of criminal offences, which is generally accepted in modern criminal law, is not always entirely precise, because many criminal offences are by their nature governed by multiple group protective objects, in which case their classification into a specific group of criminal offences is made according to the assessment of which of the multiple protective objects is of greater importance for a specific criminal offence. Within some of these groups of criminal offences, or chapters in a special part of the CC, it is possible to carry out a further, narrower classification and systematization of criminal offences, which is done in the theory of criminal law, but which is not common in criminal codes, and this is not the case in our CC either (Đorđević and Bodrožić, 2024, pp. 7-9). However, within the group of criminal acts against electoral rights, from the very names of the incriminations, a group protective object is unequivocally recognizable, and the internal systematics is given at the theoretical level.

The commission of the criminal act is determined alternatively. It can be accomplished by not registering another person on the voter list, deleting another person from the voter list, or preventing or hindering another person from voting.

Failure to register another person on the voter list is done by omission. Deletion from the voter list is done by positive action, while preventing and hindering another person from voting can be done in various ways, such as confiscating personal documents required for voting, preventing or hindering access to a polling station, or through fraudulent activities aimed at preventing or hindering another person from voting. The first two of the three alternatively envisaged acts of execution must be carried out unlawfully, while the third is carried out in an unlawful manner. These are methods that are in conflict with the relevant regulations.

The consequence of a criminal offence is to prevent or hinder another person from exercising their right to vote. The criminal offence is, therefore, completed when another person is unlawfully prevented or hindered from voting.

In relation to the defined commission of a criminal act, the perpetrator of the basic form may be the person who has the possibility of not entering another person in the voter list or of deleting him from it, or any person.

Since specific intent is a subjective characteristic of the basic form of this criminal offence, the presumed form of guilt is direct intent. The intent implies denying another the right to vote, but the intention does not have to be realized (Delić, 2023, p. 106).

Alternatively, a fine or imprisonment of up to one year is possible.

A more serious form is provided for in paragraph 2. It criminalizes electoral coercion aimed at causing another person to exercise or not to exercise the right to vote or to vote for or against a specific candidate or proposal in an election, recall vote or referendum.

Electoral coercion consists of the use of force and threats aimed at violating the freedom of choice when voting.¹⁴ Therefore, there must be a causal link between the force and threat and the exercise or non-exercise of the right to vote, or the vote for or against a particular candidate or proposal.

28

¹⁴ As it is a specific form of coercion, it coincides with the criminal offence of coercion from art. 135 of the Criminal Code and it will only be apparent and it will only be a criminal offence from art. 156. Here the specialty relationship between the two mentioned criminal offences is in question - lex specialis derogat lege generali (Stojanović, 2020, p.548). Coercion has the character of a general criminal offence, since there are a number of criminal offences that contain force and threat as their specific characteristics, as well as certain additional circumstances. If these additional circumstances are not present, the act will be qualified as coercion. In other cases, it refers to the relationship of specialty (Milošević, 2022, p.50)

The definition of elections and referendums should be understood in the sense of the provisions of Art. 112, paragraphs 13 and 14 of the CC.

The criminal offence is considered completed when, due to the use of force or threat, a person is forced to vote or not to vote, or to vote for or against a specific candidate or proposal in an election, recall vote, or referendum.

Any person can be the perpetrator of a serious crime.

Bribes (Art. 367)

On the subjective level, intent is required for the existence of a serious crime.

The penalty is imprisonment ranging from three months to three years.

If a criminal offence is committed against more than one person, it will present a real concurrence of criminal offences (Stojanović, 2022, p. 75).

Giving and Accepting Bribes in connection with Voting (Art. 156)

This criminal offence has two basic and one aggravated form. It incriminates active and passive electoral bribery and represents a kind of special form of the criminal offences of accepting and giving bribes (Art. 367 and Art. 368 of the CC)¹⁵.

or given to any person (Lazarević, 2011, pp. 567-568). As an example: Soliciting and Accepting

¹⁵ Although this crime has similarities with soliciting and accepting bribes and bribery, there are very clear differences between them. They differ primarily according to the person to whom the bribe is given, the purpose of the bribe, as well as the perpetrator of the act, that is, the person requesting the bribe. Taking into account the differences, the question can be raised whether the very name of the part corresponds to the acts of giving and receiving bribes, where the activities are related to an official in connection with the performance of official duties, while in the case of the analyzed incrimination from Art. 156, the bribery - a gift, reward or other benefit can be offered, promised

⁽¹⁾ An official who, directly or indirectly, solicits or accepts a gift or other benefit, or promise of a gift or other benefit for himself or another to perform an official act within his competence or in relation to his competence that should not be performed or not to perform an official act that should be performed, shall be punished with imprisonment of two to twelve years. (2) An official who, directly or indirectly, solicits or accepts a gift or other benefit or a promise of a gift or benefit for himself or another to perform an official act within his competence or in relation to his competence that he is obliged to perform or not to perform an official act that should not be performed, shall be punished with imprisonment of two to eight years. (3) An official who commits the offence specified in paragraphs 1 and 2 of this Article in respect of uncovering of a criminal offence, instigating or conducting criminal proceedings, pronouncement or enforcement of criminal sanction, shall be punished with imprisonment of three to fifteen years. (4) An official who after performing or failure to perform an official act specified in paragraphs 1, 2 and 3 of this Article solicits or accepts a gift or other benefit in relation thereto, shall be punished with imprisonment of three months to three years. (5) A foreign official who commits the offence specified in paragraphs 1 through 4 of this Article shall be punished with the penalty prescribed for that offence. (6) A responsible officer in an institution or other entity not involved in pursuit of an economic activity, and who commits the offence specified in paragraphs 1, 2 and 4 of this Article shall be punished with penalty prescribed for that offence. (7) The received gift or material gain shall be seized. Bribery (Art. 368)

The act of committing the first basic form, referred to in paragraph 1 of this article, incriminates active electoral bribery. It is defined as offering, giving, promising a reward, gift or other benefit to another person to vote or not to vote in an election or referendum, or to vote in favor of or against a specific person or proposal. There are three different groups of acts: offering a bribe, giving a bribe and promising a bribe. A bribe is a reward, gift or some other benefit, which does not have to be exclusively a material benefit.

The act is completed at the moment of undertaking any of the alternatively listed activities defined as criminal offences.

The perpetrator of the first basic form can be any person.

The presumed form of guilt in the first basic form is intent, which must include awareness of the purpose for which the bribe is being given.

Alternatively, prescribed sentence is a fine or imprisonment of up to three years.

The second basic form is provided for in para. 2. It incriminates passive electoral bribery.

It consists of requesting or receiving a bribe. The term bribe implies a gift or some other benefit.

The commission of crime involves requesting or receiving a gift or any other benefit with the same purpose as in the first paragraph.

The penalty provided is identical to that in paragraph 1.

Paragraph 3 provides for a qualified form of this criminal offence. It implies the personal status of the perpetrator of the criminal offence as a qualifying circumstance that gives the offence a more serious form. This refers to the status of a person who has certain powers in the voting process.

⁽¹⁾ Whoever makes or offers a gift or other benefit to an official or another person, to within his/her official competence or in relation to his/her competence perform an official act that should not be performed or not to perform an official act that should be performed, or who acts as intermediary in such bribing of an official, shall be punished with imprisonment of six months to five years. (2) Whoever makes or offers a gift or other benefit to an official or another person to, within his official competence or in relation to his competence, perform an official act that he/she is obliged to perform or not to perform an official act that he/she may not perform or who acts as intermediary in such bribing of an official, shall be punished with imprisonment of up to three years. (3) Provisions of paragraphs 1 and 2 of this Article shall apply also when a bribe is given, offered or promised to a foreign official. (4) The offender specified in paragraphs 1 through 3 of this Article who reports the offence before becoming aware that it has been detected, may be remitted from punishment. (5) Provisions of paragraphs 1, 2 and 4 of this Article shall apply also when a bribe is given, offered or promised to a responsible officer in an institution or other entity not involved in pursuit of an economic activity. (6) (Deleted).

This refers to members of the electoral committee or another person who performs certain duties related to voting.

A particularity of this form of criminal offence is the specific time of taking action, which must be taken in the performance of duties related to voting.

This criminal offence is also characterized by the mandatory application of the security measure of confiscation of objects intended or used for the commission of this criminal offence, which is provided for in paragraph 4 of this article.

Abuse of the right to vote (Art. 157)

The criminal offence of the abuse of the right to vote criminalizes activities that involve violating the rules that are a prerequisite for the regularity of elections and referendums. These rules stipulate that no one may vote on behalf of another person, and that each person has the right to vote once, i.e. using one ballot paper.

The criminal offence has two forms, basic and aggravated.

In the basic form, which is provided for in paragraph 1, three forms of the commission of criminal acts are alternatively defined by the law: voting instead of another person under his name, voting more than once in the same election, and using more than one ballot paper.

Voting on behalf of another person is most typically done through false representation by the person voting on behalf of another person under their name, or in another manner that involves misleading the members of the polling station committee. For the existence of this criminal offence, it is irrelevant whether the perpetrator has voted with the consent of the person on whose behalf he has taken the action of voting, whether he has met the conditions for access to voting, and whether he has had some form of support and assistance when taking the action.

Voting multiple times in a single ballot is most often undertaken by misleading members of the polling station committee who, in order to prevent multiple voting by one person, also use techno-preventive measures, such as invisible electoral ink.

Voting by using multiple ballots most often involves fraudulent activities that the perpetrator undertakes in order to obtain a larger number of ballots. For this form to exist, it is not important how the perpetrator obtained multiple ballots.

This is an active type of the criminal offence, which is completed by simply undertaking one of three alternatively defined criminal activities.

The essence of a criminal offence is also characterized by a specific time and place of committing the criminal action, which must be committed during an election or referendum, therefore at a precisely specified time and in a precisely specified place.

The term elections and referendums should be understood in the sense of Art. 112, paragraphs 13 and 14 of the CC.

The perpetrator of this form can be any person, but unlike the first three crimes referred to in this chapter, in which the voter appears as a passive subject, in this criminal offence the voter appears in the role of an active subject, i.e. a person who abuses the right to vote (Simonović, 2010, p. 251).

The form of guilt is intent.

The penalties for the basic form are a fine or imprisonment of up to one year.

The more serious form is provided for in paragraph 3, and exists in a situation where a member of the polling station committee enables another person to commit the basic form of this criminal offence.

Essentially, this is a criminalization of assisting in multiple voting or voting on behalf of another person. Enabling involves classic acts of assistance, which in this more serious form of the criminal offence are raised to the rank of the commission of the crime.

The actions that can constitute this form of criminal offence are numerous, but they are aimed at enabling the abuse of the right to vote by a person who votes illegally (voting instead of another person under their name, voting more than once in the same election, or using more than one ballot).

The perpetrator of a more serious form can only be a member of the electoral committee, so it is a *delicta propria*, i.e. for the existence of a more serious form, a special characteristic of the perpetrator is required.

As a form of guilt, intent is required.

Prescribed sentence is a fine or alternatively a prison sentence of up to two years.

Ballot and Election Fraud (Art. 161)

The criminal offence Ballot and Election Fraud incriminates activities contrary to the rules on the conduct of elections and referendums by a member of an election or referendum administration or another person performing duties related to voting. It is a specific type of the so-called crime and abuse of power (Ignjatović, 2021, p. 129).

The term Electoral Management Body includes the Republic Election Commission and polling stations.

The lawful work of the aforementioned persons ensures the conduct of legitimate elections determining the electoral will of voters, which is a prerequisite for a democratic state.

Activities contrary to the above, which aim to modify election results in order to misrepresent the will of citizens, are highly socially dangerous and require criminalization. This is the criminalization of electoral fraud.

The electoral will of citizens presents the specific object of protection of the criminal offence of falsifying citizens' results, while the immediate object of the action is ballots or votes. The legislator uses the noun in the plural, but the *ratio legis norme* implies that the offence exists even when the activity from the legal description of the criminal offence is undertaken in relation to one ballot or vote (Delić, 2023, p. 108).

This criminal offence has only one form.

The commission of criminal act is alternatively defined and may consist of altering the number of ballots or publishing false voting results. Changing the number of ballots may be undertaken in any of the following alternative ways. The first method can be done by adding or subtracting ballots or votes during the count (e.g. by adding subsequently completed ballots to the ballot box, destroying or concealing regular ballots).

The second method may consist of changing the number of ballots or votes in another way (e.g. by making regular ballots invalid), while the third method may involve publishing false voting results, consisting of numerous activities in publishing voting results that differ from the actual results.

This is a classic type of *delicta propria* criminal offence, since the perpetrator can only be a member of the election or referendum administration or another person performing duties related to voting.

This criminal offence can only be committed with intent.

The penalty is a fine, alternatively with imprisonment from six months to five years.

Concluding remarks

Even though this article does not cover the statistical data, because its main selected approach projected in the introductory remarks is generally oriented towards and grounded within the dogmatic and normative method of the research, some general relevant conclusions on the character of the criminal law protection of the electoral rights in the contemporary criminal legislation of the Republic of Serbia can be given.

¹⁶ This type of criminalization of a specific category of criminal behavior that Chambliss defines as state criminality as a type of criminal offence committed by officials as representatives of the state in the performance of their duties is also recognized as state criminality that can appear in several forms, of which falsification of the results of the survey, according to M. O'Brien and M. Yar, appears as an act of public officials aimed at exercising political control over the state and its apparatus (Chambliss,1989, according to Ignjatović, 2021, p.129).

Criminal law is just one of the mechanisms of a state response within the broader system of electoral justice. Observed in the mentioned context, it is also an indispensable instrument in the field of suppression and prevention of the violations of and threats to this special category of political rights. As the issues of the application of criminal law are inseparable from the issues of its interpretation, the normative analysis of criminal acts against electoral rights is the only mechanism for finding the *ratio legis* of this category of delict.

Criminal acts against electoral rights in modern Serbian criminal law represent a clear, precisely limited and coherent whole, which places criminal law protection at the level of its principled compliance with the principles of legitimacy and legality.

There are nine crimes in this chapter, neither too few nor too many. They correspond to the so far detected forms of criminal behavior in this area.

The criminal zone is precisely and adequately set, and the norms in a certain sense represent a clear specialization of certain more common criminal acts from the national legislation. The language is clear and precise, which corresponds to the nomotechnics recommended in the modern drafting of legal regulations.

Despite continuous changes in modern Serbian criminal legislation which, as already mentioned, are characterized by the term continuous criminal law interventionism, these criminal acts remained relatively independent of the mentioned dynamics, and represent a stable group of criminal acts possessing a higher potential for inducing and controlling the desired behavior of individuals. In this area, neither criminalization nor a shift of the center of gravity of the criminal zone to the pre-zone of endangerment of the protected property was observed. It refers to a relatively rational system of norms, which do not show the shortcomings of criminalization in the form of early stages of endangerment of the object of protection.

However, it should not be expected too much from the criminal law in this field. It should be implemented as a rational system of legal regulations and part of a wider system of electoral legislation.

Criminal law in this area should be used more often and more effectively, not only for the sake of general prevention, but also for the purpose of increasing the efficiency of this segment of the criminal justice system, which only through application and influence on the wider socio-cultural and overall political context of the Republic of Serbia can achieve the desired level of crime prevention in the area of elections and electoral rights.

REFERENCES

- Bodrožić, I. (2020) 'Kontinuirani krivičnopravni intervencionizam-na raskršću politike i prava'. *Srpska politička misao*, 2, 381-396. https://doi.org/10.22182/spm.6822020.17
- Bodrožić, I. (2022) *Terorizam kao kategorija nacionalnog i međunarodnog krivičnog prava*. Beograd: Kriminalističko-policijski univerzitet.
- Bodrožić, I., Milošević, M. (2023) 'Punishement in the pre-zone of endangering the protected value-pro at contra?', in: Bodrožić, I. (ed.) *XIII International Scientific Conference*"Archibald Reiss Days", Conference proceedings. Belgrade: University of Criminal Investigation and Police Studies, 56-63.
- Constitution of the Republic of Serbia (2006), Official Gazette of RS, nos. 98/2006 and 115/2021.
- Delić, N. (2023) *Krivično pravo-Posebni deo.* Beograd:Pravni fakultet Univerziteta u Beogradu.
- *Criminal Code* (2024), Official Gazette of RS, no. 85/2005, 88/2005 corrected, 107/2005 corrected, 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, 35/2019 and 94/2024.
- Guidelines for Reviewing a Legal Framework for Elections-Second Edition (2013). Warshaw: OSCE Office for Democratic Institutions and Human Rights (ODIHR).
- Đorđević, Đ., Bodrožić, I. (2024) *Krivično pravo-Posebni deo.* Beograd: Kriminalističko-policijski univerzitet.
- Ignjatović, Đ. (2021) Kriminologija. Beograd: Pravni fakultet Univerziteta u Beogradu.
- Karličić, M. (2023) "Krivičnopravna zaštita izbornog prava u Srbiji", *Bezbednost*, Beograd, 65(1), 204-221. doi:10.5937/bezbednost2301204K.
- Lazarević, Lj. (2011) *Komentar Krivičnog zakonika*. Drugo izmenjeno i dopunjeno izdanje. Beograd: Pravni fakultet Univerziteta Union.
- Law on the Ratification of the European Convention for the Protection of Human Rights and Fundamental Freedoms (2015), Official Gazette of SCG International Agreements, no. 9/2003, 5/2005 and 7/2005 corrected and Official Gazette of RS International Agreements, no. 12/2010 and 10/2015.
- Law on the Ratification of the International Covenant on Civil and Political Rights (1971), Official Gazette of the SFRY, no. 7/71.
- Law on the Election of the President of the Republic (2009), Official Gazette of RS, nos. 111/07 and 104/09 other law.

- Law on the Elections of Members of Parliament (2020), Official Gazette of RS, nos. 35/00, 57/03 CC, 72/03 other law, 18/04, 85/05 other law, 101/05 other law, 104/09 other law, 28/11 CC, 36/11, 12/20 and 68/20.
- Law on the Referendum and the people's initiative (2021), Official Gazette of RS, nos. 111/21 and 119/21.
- Law on the Unified Electoral Roll (2011), Official Gazette of RS, nos. 104/09 and 99/11.
- Law on Local Elections (2020), Official Gazette of RS, nos. 129/07, 34/10 US, 54/1, 12/20, 16/20 Authentic Interpretation and 68/20.
- Law on Administrative Disputes (2009), Official Gazette of RS, no. 111/09.
- Law on Financing Political Activities (2019), Official Gazette of RS, nos. 43/11, 123/14 and 88/19.
- Milošević, M. (2022) Krivično pravo-Posebni deo: izabrane inkriminacije za studije nauka bezbednosti. Beograd: Fakultet bezbednosti Univerziteta u Beogradu.
- *Nomotehnika i pravničko rasuđivanje* (2016). Beograd: Program Ujedinjenih nacija za razvoj u Srbiji i Pravni fakultet Univerziteta u Beogradu.
- Orozco-Henriquez, J. (2010). *Electoral Justice: The International IDEA Handbook*. Stockholm: International Institute for Democracy and Electoral Assistance.
- Pajvančić, M. (2001) *Rečnik osnovnih pojmova i termina o izborima*. Beograd: Centar za slobodne izbore i demokratiju.
- Radojković Ilić, K. (2024) 'Semantički izazovi jezika krivičnog prava', *Revija za kriminologiju i krivično pravo*, 2, 161-178. https://doi.org/10.47152/rkkp.62.2.7
- Simonović, D. (2010) Krivična dela u srpskoj legislativi. Beograd: Službeni glasnik.
- Stojanović, Z. (2022) *Krivično pravo-Posebni deo*. Novi Sad: Pravni fakultet u Novom Sadu.
- Stojanović, Z. (2020) *Komentar Krivičnog zakonika*. Deseto dopunjeno izdanje. Beograd: Službeni glasnik.

© 2025 by authors



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

https://doi.org/10.47152/rkkp.63.1.3

UDK: 343.982.323 340.64:577.212

CHEILOSCOPY: EXPLORING THE GENDER AND AGE PATTERNS IN LIP PRINTS*

Mehmet Ali Tekinera, Simge Varlıkb, Aybüke A. İsbir Turanc

Lip prints, like fingerprints, possess unique characteristics that can be utilized as biometric data for identification and gender determination. Using the forensic examination technique known as cheiloscopy, 23 distinctive features of lip prints have been identified. This study employs the Suzuki and Tsuchihashi classification system to investigate the correlation between five types of lip print patterns, gender, and age. The study's sample consists of 100 random and voluntary participants, equally divided into 50 women and 50 men. Feature extraction focused on seven distinctive characteristics and their frequencies. The study also explored the presence of any unique, previously undefined features. The findings indicate that lip print characteristics vary based on age and gender. While the study suggests that lip prints could be a useful tool in crime investigation, it highlights the need for further research with larger sample sizes.

KEYWORDS: lip print, cheiloscopy, trace evidence, forensics, biological data.

^{*} Acknowledgements: All authors contributed to the study. SV made the statistical analyzes and finalized the manuscript. Proofreading was performed by all authors. Thanks to Gözde Varol for her contribution in the field of statistics.

^a Unye Faculty of Economics and Administrative Sciences, Ordu University, Ordu, Turkiye, ORCID https://orcid.org/0000-0002-3261-5777.

b Institute of Forensic Sciences, Turkish National Polis Academy, Ankara, Turkiye, e-mail: simgeakademi@gmail.com ORCID https://orcid.org/0000-0001-7664-0037.

^c Institute of Forensic Sciences, Turkish National Polis Academy, Ankara, Turkiye, ORCID https://orcid.org/0000-0002-3650-7810.

Introduction

Today, new applications are often needed in studies in the field of forensic sciences. Trace evidence, in which biological data are used, is very important, especially in criminal investigations, as it has the quality of personal identity. As long as the traces are not exposed to a physical or chemical effect on the surface they come into contact with, they can be visible or invisible on that surface (Ristenbatt et al., 2022; Sharma et al., 2013; Randhawa et al., 2011). In addition to the characteristic structure of these traces and the detection of fingerprints of individuals, personal biological properties can also be reached through biological evidence. Although all these traces are unique to the person, they continue to find a place for identification in security systems and criminal investigations (Ristenbatt et al., 2022; Gupta et al., 2011). The examination method performed in order to benefit from the distinctive features of lip prints as forensic evidence is referred to as "Cheiloscopy" in the literature. This area has emerged in order to determine the identities of people and to analyze their specific features from lip prints (Bhattacharjee and Kar, 2024).

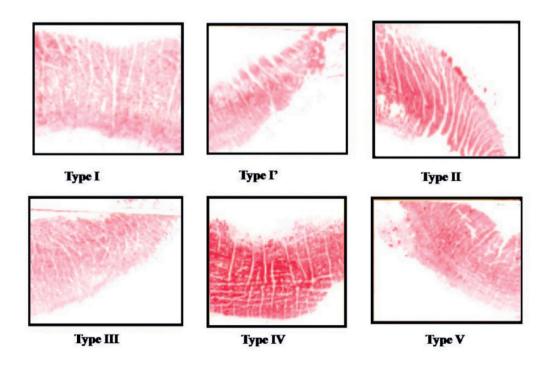
In this sense, lip prints can also be evaluated within the scope of evidence. Lip prints, like fingerprints, can be found on any surface. The surfaces that the lips touch heavily can be listed as places such as cigarette butts, glasses, and under spoons (Fonseca et al., 2019; Padmavathi et al., 2013, p. 123).

In order to use the lip prints in identification, it is necessary to examine the anatomical and cellular structure of the lip. In the light of this information, as with all biometric data, it is very important to make the data functional so that it can be classified according to their basic similarities, classified and easily accessed and compared when needed (Augustine et al., 2008, p. 44). In the literature, four different classification systems have been found for lip prints. The first of these is the "Martin Santos Classification (1967)". This classification system basically divides lip prints into two classes. The first of these are "simple" prints. Simple prints are consisting of uniform fractures. The second of the basic classes are "compound" prints, which consist of several different types of fractures. The third classification system is the "Suzuki Classification (1970)". In the classification system made by Suzuki, lip prints are divided into four classes according to their natural fractures (Uzomba et al., 2023). The fourth classification system is the "Suzuki and Tsuchihashi Classification (1971)", also developed by Suzuki in collaboration with Tsuchihashi. This classification considers lip prints in six different types. (Pallivathukal et al., 2024; Tsuchihashi, 1974). The most accepted and verified classification system in the literature is the Suzuki and Tsuchihashi System. The classification System of Suzuki and Tsuchihashi is shown in Table 1. In order to distinguish the features of each groove type, it is necessary to make the visual distinction correctly (Fig 1).

Table 1Suzuki and Tsuchihashi's classification system

Classification	Groove Type			
Type I	Whole vertical grooves			
Type Ia	Whole non-vertical grooves			
Type II	Branched grooves			
Type III	Intersecting grooves			
Type IV	Reticulate grooves			
Type V	İrregular grooves			

Figure 1Different pattern types of lip prints (Kautilya et al., 2013)



In addition to the classification of lip prints, distinctive characters are very important. In a previous study, 23 types of distinctive characters were identified (Kaur and Thakar, 2023; Kasprzak, 1990). In the study of Kasprzak (1990), lip prints taken from 1500 people have been examined and 23 different characters have been determined. These characters have been divided into 7 main groups based on their similarities and differences in terms of direction and shape. In this regard, Table 2 shows the characters and their groups. In addition, in the mentioned study, 400 lip prints were examined in detail in order to determine the number of distinctive characters they have. The number of distinctive characters detected in 400 lip prints was stated as 456,215 in total. As a result of this research, the number of distinguishing characters on a lip print appears to be 1145.5 on average (Kasprzak, 1990).

The formation of the characters in the lip marks begins to be seen in the uterus from the sixth week and does not change after birth unless exposed to strong physical external factors. (Reshma and Don, 2020) In this regard, the numbers determined in the studies prove that lip prints are biometric data, but also reveal how useful data they are in identification.

In addition to the classification feature of the lip prints, obtaining from the surface and the permanence of the surfaces were also investigated. In the study conducted by Segui et al. (2000) the availability of comparable traces on different surfaces was investigated. In this study, aluminium, cobalt oxide, and magnetic powders were applied on white ceramic, black ceramic, clear glass, green glass, white cloth, and white paper, respectively, and experiments were carried out for 2 hours, 1 day, 15 days and 30 days. Successful results were obtained up to 30 days on glass and ceramic surfaces, and up to 1 day later on paper. Despite this, positive results could not be obtained on the fabric surface. (Segui. et al., 2000, p. 45)

The lip prints found at the crime scene may not always be visible. This situation shows that there is a need for methods to make lip prints visible, just like the methods of developing fingerprints (Bano and Prabu, 2021). However, while developing the method, it is necessary to act according to the characteristics of both tissues. For example, while fingerprints are formed as a result of the secretions of sweat and sebaceous glands under the skin, the secretion that keeps lip prints at the crime scene is saliva (Herrera et al., 2013, p. 115).

In the examination of lip prints, it is important to know the distinguishing features in order to be able to classify and compare, except in the way it is obtained from the surface. The person who will examine the lip print should know what to look for on it. For this, 23 types of distinctive characteristics were determined with the prints taken from 1500 people (Kasprzak, 1990, pp. 145-151). Although they

were defined in 23 different ways, these features were gathered in 7 main groups that were similar in shape but differed in direction (Table 2). This classification study by Karsprzak (1990) shed light on many studies as the most comprehensive study in the literature.

Table 2Distinctive characters in lip print (Karsprzak, 1990)

Order No.	Group	Name		
1	Eyes	eye		
2	Lyes	double eye		
3		hook		
4	Lines	bridge		
5		line		
6	Spots	dot		
7	Spots	group of dots		
8		triangle like		
9	Eiguras	rectangle like		
10	Figures	pentagonal arrangement		
11		hexagonal arrangement		
12		simple top bifurcation		
13		simple bottom bifurcation		
14		closing top bifurcation		
15	Type of Bifurcation	closing bottom bifurcation		
16		branch-like top bifurcation		
17		branch-like bottom bifurcation		
18		star-like bifurcation		
19		crossing lines		
20	Type of Fence	fence		
21		double fence		
22	Type of an arrive	delta-like opening		
23	Type of openning	simple opening		

It is important to determine the characteristics of the person, such as gender and age range, while identifying from the evidence and creating a personal profile. There have been many studies in the literature on identification with lip prints (Randhawa, 2011, p. 45). In a study by Malik and Goele (2011), the discrimination of 5 lip print types in determining gender was investigated according to Tsuchihashi (1974)'s classification system. As a result of the study carried out with 50 women and 50 men between the ages of 20-30, no two lip marks are alike, Type I and Ia are the most common in women; Types IV and V have been observed to occur most frequently in men. Sharma et al. (2009) conducted another study with 20 women and 20 men.

In this study, it was observed that Type I, Ia and Type II were more common in women, and Type III and Type IV in men. It has also been observed in the study that no fingerprints are alike. Gupta et al. (2011) found that each person's lip print was unique in the group of 73 men and 73 women between the ages of 18-30. The classification was made according to the classification of Suzuki and Tsuchihashi (1971). When the general pattern between all lip parts of the research subjects was evaluated, it was found that the intersecting pattern was common in women with 27.7%, and the branching pattern was common in men with 28.1%. Dongarwar et al. (2013) conducted a study with 20 women and 20 men, and it was concluded that no lip prints are alike and that lip prints can be used in determining gender and identity.

In all of the above studies, it has been the subject of investigation whether gender estimation can be made from lip prints depending on the classification system of Suzuki and Tsuchihashi. As a common result of the studies, it was concluded that Type-I and Type-Ia classes were predominantly found in women, and Type-III and Type-IV classes were predominantly found in male characters. While reaching this result, feature evaluation was made according to the total number of people. In this study, two separate evaluations were made according to both the total number of people and the average of the total number of features.

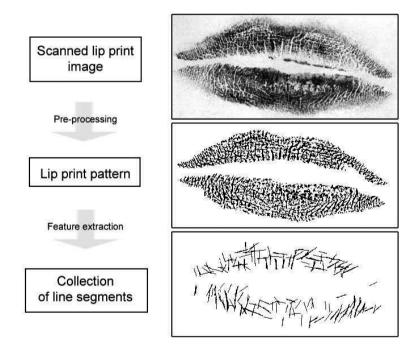
Highlighting the features of lip prints is a complex process (Karki, 2013; Travieso et al., 2019). In order to highlight the features, it is done by removing the parts needed on a photograph from the other parts (Fig 2). (Nixon and Aguado, 2008, p. 69; Smacki et al., 2011, pp. 1-5). By processing the image on the trace, the fractures on the lip are separated and the other parts are removed and the distinctive characters on the trace are made selective. (Smacki and Wrobel, 2011, p. 1; Rachana et al., 2012, pp. 394-395) Also, the same method was used in this study.

Recent studies have explored various aspects of lip print analysis, highlighting its forensic significance from multiple perspectives. George et al. (2016) examined the hereditary characteristics and familial inheritance patterns of lip prints with-

in a Malaysian population. Badiye and Kapoor (2016) investigated morphological variations of lip print patterns among diverse population groups in Central India, emphasizing geographical influences. Kaul et al. (2017) assessed variations in lip print patterns across different ethnic groups in India, focusing on racial and regional distinctions. Manjusha et al. (2017) studied the potential relationship between lip print patterns and Type 2 diabetes. Fonseca et al. (2019) provided contemporary perspectives on lip print identification, underscoring its role in modern forensic identification. Lastly, Ayuba et al. (2019) explored sexual dimorphism in lip print patterns among Ugandan, Kenyan, and Somali populations, proposing their potential use in forensic gender determination. Collectively, these studies underline the continuous advancements and expanding forensic relevance of lip print analysis.

Figure 2

Feature extraction process from lip print (Smacki and Wrobel)



Materials and Methods

Experiments were conducted under standard laboratory conditions, maintaining a temperature range of 20–25 °C and relative humidity between 40–60%, as commonly recommended in forensic biometric identification studies. Close-up photography was employed to facilitate clear identification of distinguishing lip print characteristics. A

matte, dark-colored lipstick (dark red) was uniformly applied using sterile disposable brushes to ensure hygienic conditions and prevent cross-contamination. Transparent transfer bands with high adhesive properties were utilized to obtain intact and clearly detailed lip prints, subsequently transferred onto matte high-quality paper selected due to its reduced reflectivity and superior readability. Throughout the procedures, latex examination gloves and face masks were worn to further maintain sample integrity and researcher safety. Adobe Photoshop CC software was utilized for enhancing lip print clarity, using standard image enhancement techniques such as brightness and contrast adjustments. Manual feature extraction was performed using transparent acetate sheets (0.1–0.2 mm thickness), placed directly onto the computer screen to accurately trace and document distinguishing lip print characteristics.

The sample in the study is completely random and consists of 100 volunteers. In the first stage of the study, lip prints taken from volunteers were taken with a lip print form. Then, all of the traces taken were classified according to the classification criteria of Suzuki and Tsuchihashi and the applicability and validity of the classification method was tested.

Accordingly, feature extraction was performed on 7 distinctive characteristics, and the frequency of features was determined by examining them one by one.

In addition, it was investigated on the lip prints whether there is a distinctive features different from the defined features. Then, it was examined whether gender could be determined depending on the classification on the traces. Phyton 3 was used for statistical analysis of the study.

Sample Group:

The sample consists of 100 volunteers and is completely random. While selecting the sample, it was aimed that the gender distribution be equal and the age distribution range as wide as possible. The distribution of the sample from which lip prints were taken according to gender and age is shown in Table 3. The youngest age in the sample is 7, and the oldest is 73. The mean age of the sample was 30.92 and its standard deviation was 10.24.

Table 3Distribution of the sample by age

Age Group	0-20	21-29	30-39	40-49	50(+)	Total
Number	3	60	17	15	5	100

Results

All of the lip prints taken from the sample were classified in order to determine the applicability and validity of the classification methods. As a result of the study, it has been determined that the most valid and applicable system is Suzuki and Tsuchihashi's classification system. The distribution of lip prints according to the classification system is shown in Table 4.

 Table 4

 Distribution of the sample by Tsuchihashi's classification system

Groove Type	Frequency	Percentage (%)	Cumulative Percentage (%)
Type-I: Whole vertical grooves	33	33,0	33.0
Type-Ia: Whole non-vertical grooves	17	17.0	50.0
Type-II: Intersecting Grooves	25	25.0	75.0
Type-III: Branched grooves	13	13.0	88.0
Type-IV: Reticulate grooves	7	7.0	9.0
Type-V: Irregular grooves	5	5.0	100.0
Total	100	100.0	100.0

Feature extraction was performed for all of the lip prints taken from the sample. The feature count was made on the basis of 7 main groups to determine the distinguishing characters. Feature counting continued until all 23 features defined in the subgroups were identified. According to Kasprzak's classification, all 23 features could be detected on the lip prints. In addition, the presence of an unidentified special character on the lip was examined and no other distinctive character was found.

Apart from this, it was also examined whether the total number of distinctive characters differed according to gender and age distribution. Descriptive statistics about the total number of distinctive characters are given in Table 5. The lip print with the minimum number of features detected in the table belongs to a 60-year-old female sample, and the lip print with the maximum number of features identified in the table belongs to a 40-year-old female sample (Table 5).

Table 5Descriptive statistics for the total number of distinctive characteristics

Measure	N	Min	Max	Mean	Standard Deviation	Coefficent of Variation
Total	100	404	1455	913.10	238.085	0.260
Valid N (listwise)	100					

Table 6 presents the distribution of the total number of features by gender, while Table 7 shows the distribution by classification. Analyzing the data reveals a correlation between the total number of features and gender, as well as between the features and classification (Fig 3). The research indicates that the sample population varies according to gender and lip print types within a 95% confidence interval.

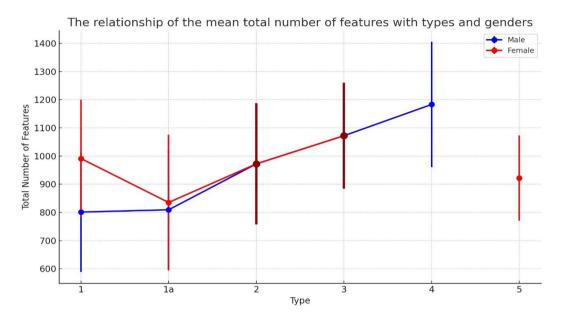
 Table 6

 Statistical information of total number of gender-related distinctive characteristics

Measure	N(number)	Min	Max	Mean	Standart Deviation	Coefficent of Variation
Male	50	526	1434	991	209.458	0.211
Female	50	404	1455	835	241.164	0.288
Valid N (listwise)	100					

Fig 3, 4, and 5 illustrate that, based on the average total number of features, there is a significant increase in the number of features in males compared to females in groups II and IV. Type IV features are exclusively observed in males, while Type V features are only present in females. Table 6 further demonstrates that the average total number of characteristics is higher in males than in females across the different types.

Figure 3The relationship of the mean total number of features with types and genders



In the evaluation of the types according to the total number of features, it was seen that the highest number of features was in Type IV, followed by Type III, Type II and Type IV, respectively. (Table 7, Fig 5). Apart from that, as shown in Fig 5, the mean of the total number of features and the log scale of the relationship between the types are also shown (Fig 6).

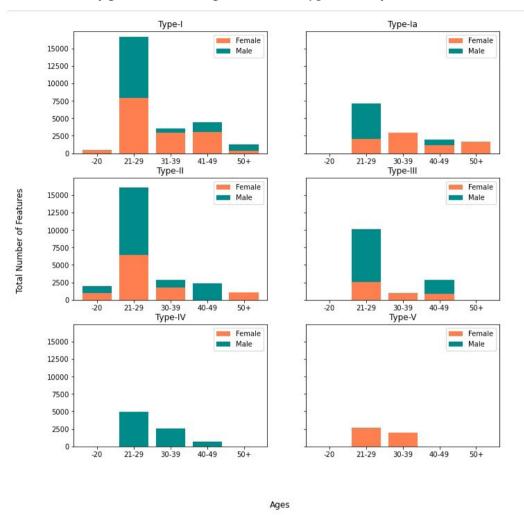
The CV (Coefficiant of Variation) value should be checked to see if the standard deviation is acceptable. Formula is shown as:

$$CV = \frac{SD}{Sample\ Mean} \times 100 \qquad (1)$$

CV measures the variability of a data set relative to its mean. It is calculated by dividing the standard deviation (SD) of the data set by the mean and then multiplying by 100. The CV is typically expressed as a percentage.

In this formula, the standard deviation quantifies the spread or variability of the data set, while the mean represents a central measure. Higher CV values indicate greater variability in the data set, while lower CV values indicate less variability. The CV is used as a measure to compare different data sets and evaluate the extent of variability (Table 5-8)(Doulah, 2018).

Figure 4Total number of gender-related, age-related and type-related features



Apart from this, an age-related evaluation of the total number of characters was also made. In this context, the volunteers were divided into 5 different age groups (20 and below, 20-29, 30-39, 40-49, 50 and above), and the minimum and maximum number of features, mean and standard deviation values were calculated according to the groups (Table 8). According to these data, the relationship between total characteristics, gender, and age was evaluated. Accordingly, it is seen that the total number of characteristics of the sample population between the ages of 20-30 is higher than that of other age groups (Figure 7).

Table 7Descriptive statistics based on the classification variable of total distinctive characteristic numbers

Measure	N	Min	Max	Mean	Standart Deviation	Coefficent of Variation
Type I	33	404	1455	801	212.147	0.265
Type Ia	17	428	1369	809	211.902	0.261
Type II	25	511	1293	972	215.421	0.221
Type III	13	712	1313	1072	188.031	0.175
Type IV	7	717	1434	1183	222.306	0.188
Type V	5	703	1118	922	151.264	0.164

Figure 5Relation between total feature numbers and types (I, Ia, II, III, IV, V)

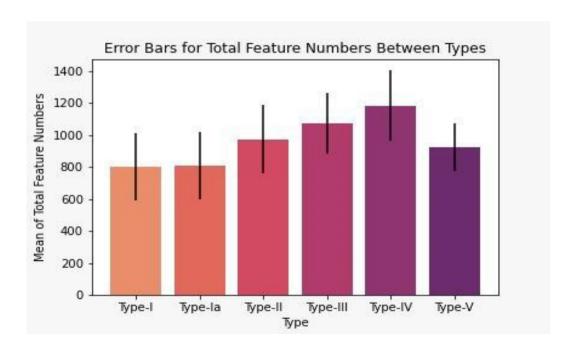


Figure 6Relation between total feature numbers and types (log scale)

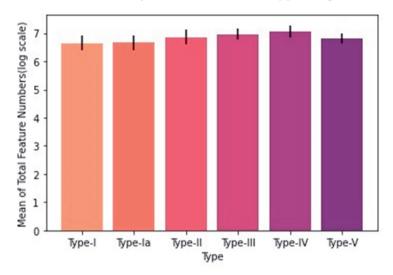
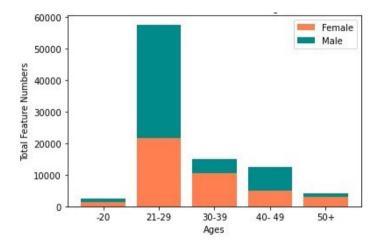


Table 8Age-related descriptive statistics of total distinctive characteristic numbers

Measure	N	Min	Max	Mean	Standart	Coefficent of
Measure	IN	IVIIII	Iviax	Mean	Deviation	Variation
20(-)	3	468	1027	818	305.241	0.373
21-29	60	467	1369	961	224	0.233
30-39	17	511	1434	874	255.673	0.292
40-49	15	428	1455	825	242.337	0.294
50(+)	5	404	1027	798	238.782	0.299
Valid N	100					
(listwise)	100					

Statistical analysis was performed separately according to the total number of individuals and the average of the total number of features. Accordingly, in parallel with the literature, with a 95% confidence interval, the relationship between characteristics of gender and type was evaluated with the chi-square test when it comes to the number of individuals. In addition, the mean of the total number of features (According to the total number of Type I, Ia, II, III, IV, V) was also evaluated with ANOVA test.

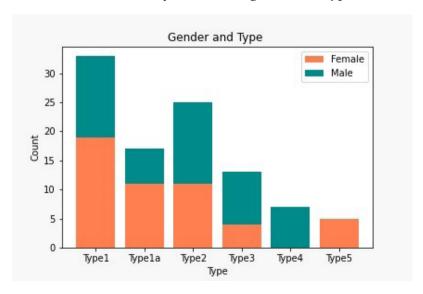
Figure 7Relation between total feature numbers, gender, and age interval



As stated before, it has been suggested in previous studies that Type-I, Type-Ia, and Type-II are predominantly found in women, and Type III and Type IV are predominantly found in men, depending on the number of individuals. The data obtained for the control of this information is shown in Fig 8 and gave results in parallel with the literature.

Fig 8

Relation between number of individuals, gender, and type (I, Ia, 2, 3, 4 and 5)



Discussion

Physical and biological evidence is very important in identification. Any feature that can be measured on the body can be classified as biometric data. Therefore, in terms of the number of features they contain, when the lip prints are examined, it has been determined that they have been measurable, classifiable, and had dissimilar features. As a result of the studies in the literature, it has been statistically revealed that lip prints can be used in identification and can be evaluated as evidence in different types of crimes.

In this study on the use of lip prints as biometric data, the feature extraction method is applied on traces, which is simplified. After the features to be examined were revealed, they were classified; the number and types of distinctive features were determined and compared with each other. As a result of these examinations, it has been concluded that the most valid and applicable classification method is the six-class classification system of Suzuki and Tsuchihashi. In terms of the classification, 23 distinctive features defined by Kasprzak were scanned on the lip prints. As a result of this examination, all 23 features were found on the lip prints, and 23 separately defined features were reclassified as 7 main groups and sub-features of these groups, taking into account their similarities (Kasprzak, 1990, pp. 145-151). Except for the 23 identified features, another feature was not defined and could not be determined.

When looking at other studies in the literature, analyzes were made by comparing the number of individuals with other features (gender, type, age, etc.) In this study, in parallel with the literature, it has been seen that lip print patterns have been unique to the individual [2]. The each and total number of types in each sample differ from each other (Type I, Ia, II, III, IV, and V). This finding increases the possibility of using lip prints as trace evidence.

Apart from this, the mean of the total number of features (including Type I, Ia, II, III, IV, V) was proportioned to the age and gender variables, and the One-Way ANOVA test was applied with a 95% confidence interval. When the relationship between gender and types was evaluated, it was seen that the p value was less than 0.05. (P value=0.006). In this case, it can be said that there is a significant relationship between gender and types. It can be said that this finding is compatible with the literature. Considering the relationship between age and types, the p value was found to be greater than 0.05 (p=0.161) In this case, it can be said that there was no significant relationship between age and types in the current sample. In a previous study with 500 samples, it has been seen that no significant results have been obtained between the types and the age groups under 20 years old and over 40 years

old [2]. Compared to this study, the effect of factors such as age group differences and sample size may be in question. Also, it may be difficult to establish a relationship between lip print and age due to the changes in the lip prints of the individuals in the developmental age and the deformations over time.

Moreover, chi-square analysis was performed for the number of people, gender and age assessment. While the relationship between the number of people and gender was significant (p value less than 0.05), no significant relationship was found between the number of people and age groups (p value = 0.90).

When all the features were examined, it was seen that the distinctive features differed depending on gender. Especially according to the mean value of total features (all types), the fact that Type IV is seen only in men, Type V only in women. It can be said that there is a difference between the genders in terms of the total mean of features between the types.

As a result of the study, although it can be said that lip prints are a suitable tool to be used in crime investigation, because it is unique. Also, it has been seen that clearer results can be obtained by expanding the research by increasing the number of samples. Apart from age and gender, comparisons can also be made between different races. Research in the context of gender can be deepened and the number of samples in different age groups can be increased. All these studies can be supported by genetic and biochemical analyzes.

Conclusion

Lip prints are one of the types of trace evidence that can be found at a crime scene. However, obtaining fingerprints is often easier than obtaining lip prints. Most research has focused on accurately capturing fingerprints, leaving a gap in the literature regarding studies on lip prints. Additionally, it is not always possible to find clear prints at a crime scene. It is crucial to act quickly to prevent the prints from disappearing and to collect samples accurately.

In this study, photography was used as it is seen as a method that crime scene investigators and law enforcement officers can use to detect prints quickly, easily, and economically. One of the limitations of the study is the lack of information in the literature about whether clear images can be obtained using chemicals similar to those used for fingerprinting. Understanding the chemical composition of the lipstick used for lip prints and whether another chemical could be used to capture the print accurately would enable faster and more accurate sample collection.

In the long term, the aim is to analyze the clarity of lip prints using the chemicals mentioned in the literature. This study also aims to pave the way for the development of lip print detection methods and to inspire new research that will fill the gap in this field. Future studies may focus on developing sensors for the rapid detection of lip prints at crime scenes, adapting fingerprint detection methods for lip prints, chemically analyzing lipsticks that enhance lip print visibility, and establishing a national and international lip print database.

REFERENCES

- Augustine, J., Barpande, S. R., Tupkari, J.V. (2008) 'Cheiloscopy as an adjunct to forensic identification: a study of 600 individuals', *Journal of Forensic Odontostomatology*, 26(1), 44-52.
- Ayuba, J.T. *et al.* (2019) 'Sexual dimorphism in the lip print pattern and size among Ugandan, Kenyan and Somali population', *Forensic Sci Int: Rep*, 1, https://doi.org/10.1016/j.fsir.2019.100012
- Badiye, A., Kapoor, N. (2016) 'Morphologic variations of lip-print patterns in a central Indian population: a preliminary study', *Med Sci Law*, 56(3), 200–204. https://doi.org/10.1177/0025802415605538
- Bano, A. M., Prabu, M.D. (2021) 'Knowledge and awareness of lip prints in personal identification and criminalization among dental undergraduates', *Annals of the Romanian Society for Cell Biology*, 25(6):6463-6472.
- Bhattacharjee, R., Kar, A. K. (2024) 'Cheiloscopy: A crucial technique in forensics for personal identification and its admissibility in the Court of Justice', *Morphologie*, 108(360), 100701. https://doi.org/10.1016/j.morpho.2023.100701
- Dongarwar, G. R., Bhowate, R. R., Degwekar, S. S. (2013) 'Cheiloscopy-method of person identification and sex determination', *Open Access Scientific Reports*, 2(3), 612. http://dx.doi.org/10.4172/scientificreports.612
- Doulah, M. S. U. (2018) 'An alternative measures of standard deviation coefficient of variation and standard error', *International Journal of Statistics and Applications*, 8(6), 309-315.https://doi.org/10.5923/j.statistics.20180806.04
- Fonseca, G. M. et al. (2019) 'Lip print identification: current perspectives', *Journal of forensic and legal medicine*, 65, 32-38.https://doi.org/10.13039/501100005916
- George, R. *et al.* (2016) 'Inheritance pattern of lip prints among Malay population: a pilot study', *J Forensic Legal Med*, 39:156–160. https://doi.org/10.1016/j.jfm.2016.01.021
- Gupta, S., Gupta, K., Gupta, O. P. (2011) 'A study of morphological patterns of lip prints in relation to gender of North Indian population', *Journal of Oral Biology and Craniofacial Research*, 1(1), 12-16. https://doi.org/10.1016/s2212-4268(11)60005-5
- Herrera, L., Fernandes, C. M. S., Serra, M. C. (2013) 'Human identification by means of conventional and digital Cheiloscopy: a study of the literature', *Revista Gaúcha de Odontologia*, 61(1), 113-120.
- Karki, R. (2013) 'Lip Prints an identification aid', *Kathmandu University Medical Journal*, 10(2), 55-57. https://doi.org/10.3126/kumj.v10i2.7345

- Kasprzak, J. (1990) 'Possibilities of cheiloscopy', *Forensic Science International*, 46(1-2), 145-151. https://doi.org/10.1016/0379-0738(90)90154-Q
- Kaul, R. et al. (2017) 'Study of lip prints in diferent ethno-racial groups in India', *Indian J Dent Res*, 28(5), 545–548. https://doi.org/10.4103/ijdr.ijdr_352_14
- Kautilya, D. V., Bodkha, P., Rajamohan, N. (2013) 'Efficacy of cheiloscopy in determination of sex among South Indians', *Journal of Clinical and Diagnostic Research*, 7(10), 2193-2196. https://doi.org/10.7860/JCDR/2013/5371.3468
- Kaur, J., Thakar, M. K. (2023) 'New individual features in lip prints—a potential support for personal identification', *Canadian Society of Forensic Science Journal*, 56(1), 1-22. https://doi.org/10.1080/00085030.2022.2062828
- Malik, R., Goel, S. (2011) 'Cheiloscopy: a deterministic aid for forensic sex determination', *Journal of Indian Academy of Oral Medicine and Radiology*, 23(1), 17-19. https://doi.org/10.5005/jp-journals-10011-1082
- Manjusha, P. *et al.* (2017) 'Analysis of lip print and fingerprint patterns in patients with type II diabetes mellitus', *J Oral Maxillofac Pathol*, 21(2), 309–315. https://doi.org/10.4103/jomfp.jomfp_17_16
- Nixon, M., Aguado, A. (2008) Feature Extraction & Image Processing. San Diego, CA: Academic Press, 405.
- Padmavathi, B. N. et al. (2013) 'Gender determination using cheiloscopy', *Journal of Forensic Dental Sciences*, 5(2), 123-128. https://doi.org/10.4103/0975-1475.119780
- Pallivathukal, R. G. *et al.* (2024) 'Evaluating Digital Photography for Lip Print Recording: Compatibility With Traditional Classification Systems', *Cureus*, 16(4). https://doi.org/10.7759/cureus.58238
- Prabhu, R. V., Dinkar, A., Prabhu, V. (2012) 'A study of lip print pattern in Goan dental students A digital approach', *Journal of Forensic and Legal Medicine*, 19(7), 390-395. https://doi.org/10.1016/j.jflm.2012.04.012
- Randhawa, K., Narang, R. S., Arora, P. C. (2011) 'Study of the effect of age changes on lip print pattern and its reliability in sex determination', *Journal of Forensic Odontostomatology*, 29(1), 45-51.
- Reshma, K. H., Don, K. R. (2020) 'Identification of Latent Lip Prints in Forensics-Review', *Indian Journal of Forensic Medicine & Toxicology*, 14(4).
- Ristenbatt III, R. R. et al. (2022) 'Traceology, criminalistics, and forensic science', *Journal of Forensic Sciences*, 67(1), 28-32. https://doi.org/10.1111/1556-4029.14860
- Segui, M. A. *et al.* (2000) 'Persistent lipsticks and their lip prints: new hidden evidence at the crime scene', *Forensic Science International*, 112(1), 41-47. https://doi.org/10.1016/s0379-0738(00)00173-0

- Sharma, P., Saxena, S., Rathod, V. (2009) 'Cheiloscopy: the study of lip prints in sex identification', *Journal of Forensic Dental Sciences*, 1(1), 24-27. https://doi.org/10.4103/0974-2948.50884
- Sharma, S. M., Krishnan, S., Anchan, A. (2013) 'Cheiloscopy-a unique forensic tool', *Nitte University Journal of Health Science*, 3(1), 74-77. https://doi.org/10.1055/s-0040-1703706
- Smacki, L., Wrobel, K., Porwik, P. (2011) 'Lip print recognition based on DTW algorithm', *Third World Congress on Nature and Biologically Inspired Computing*, 594-599. https://doi.org/10.1109/nabic.2011.6089655
- Travieso, C. M. *et al.* (2019) 'Improving the performance of the lip identification through the use of shape correction', *Applied Intelligence* 49(5), 1823-1840. https://doi.org/10.1007/s10489-018-1352-6
- Tsuchihashi, Y. (1974) 'Studies on personal identification by means of lip prints', *Forensic Science International* 3(3), 233-248. https://doi.org/10.1016/0379-0738(74)90047-8
- Uzomba, G. C., Obijindu, C. A., Ezemagu, U.K. (2023) 'Considering the lip print patterns of Ibo and Hausa Ethnic groups of Nigeria: checking the wave of ethnically driven terrorism', *Crime Science*, 12(1), 4. https://doi.org/10.1186/s40163-023-00183-6

© 2025 by authors



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

RECEIVED: 23 March 2025 ACCEPTED: 14 May 2025

JUVENILE PRISON – CONVINCED: PERPETRATOR AND VICTIM OF A CRIMINAL OFFENSE

Goran Krstajića, Dragan Obradovićb

The purpose of imposing criminal sanctions has been established by the most important regulations from the field of criminal law. In particular, the purpose of imposing or executing a prison sentence is defined as the most severe criminal sanction that can be imposed on the perpetrator of a certain criminal act. After starting to serve the sentence, the process of reintegration of persons sentenced to effective prison sentences begins. It is an extremely important issue, which, although there is an awareness of its importance, has not in practice been given enough attention for various reasons: a lack of qualified professional staff in institutions for the execution of prison sentences, the overcrowding of these institutions or limited material resources at the state level.

However, there are also less researched aspects of this problem, such as the different types of deprivation that convicts are exposed to while serving their sentences. This is a particularly sensitive issue in the case of a juvenile prison sentence, which is served in the Penitentiary for Juveniles in Valjevo. Juvenile convicts, in addition to committing the crimes for which they were convicted, are often exposed to the risk of becoming victims of various crimes themselves, including violence, abuse and other forms of victimization by other convicts or even individual staff members. The aim of this paper is to point out the above-mentioned phenomenon, which is further complicated by a lack of mechanism for the protection of victims in the prison system, as well as the fear of reporting abuse due to possible consequences. The paper states specific views that are the result of research carried out in this institution, and which may be of importance for other institutions where prison sentences are carried out in Serbia.

KEYWORDS: convict, Penitentiary for Juveniles in Valjevo, victimization.

^a Assistant Professor at the Faculty of Organizational Studies "Eduka", Belgrade, e-mail: gk0606@sbb.rs; ORCID https://orcid.org/0009-0000-0222-0742.

^b Retired Higher Court Judge, Valjevo, e-mail: dr.gaga.obrad@gmail.com; ORCID https://orcid.org/0000-0002-3234-599X.

Introduction

The most severe criminal sanction that can be imposed on a perpetrator of a specific crime, a convicted adult, is imprisonment, while a specific criminal sanction is imposed on minors - the most severe, but also the only punishment - juvenile prison. The purpose of imprisonment or juvenile prison sentences is defined precisely by the relevant laws - the Criminal Code (hereinafter: CC), i.e. the Law on Juvenile Offenders and Criminal Legal Protection of Minors (hereinafter: Juvenile Law).

After the sentencing of the persons (adults and minors) against whom these, the most severe criminal sanctions have been imposed, the convicted persons begin to serve their prison sentences, i.e. juvenile prison sentences. From that moment, the process of rehabilitation of these persons and their preparation for reintegration into normal society after serving their sentence begins. The process of reintegration in the Serbian prison system generally begins after the admission of convicts to serve their sentence, their observation and classification, through the treatment of convicts, which is carried out through various forms of treatment during which the effects of the treatment are assessed (Stevanović, 2014). The issue of treatment is regulated by a corresponding bylaw.³ The process of the reintegration of convicts, regardless of whether effective prison sentences are involved, such as juvenile prison, is an extremely important issue, which, although there is awareness of its importance, is given insufficient attention in practice for various reasons. This could be a lack of appropriate professional staff in institutions for the execution of prison sentences, overcrowding of these institutions or limited material resources at the state level. The complex situation is further complicated by the fact that the "criminal infection" in prison is increasingly pronounced, and the formal system is increasingly weak and ineffective, which calls into question the realization of the basic functions of prisons (Stevanović, Igrački, 2011, pp. 411-415).

Research shows that the process of rehabilitation that takes place in prisons has no significant effect on changes in criminal behavior pattern and thus the convicts very quickly return to their former criminal behavior patterns. Penologists explain such a situation with failed rehabilitation, the dominant influence of the prison's negative informal structure, but also the impotence of the prison as an institution to change the criminal behavior patterns of criminals (Igrački, 2020, pp. 127-128). Experts from practice state that in the system of execution of criminal sanctions from

¹ Criminal Code, Off. Gazette of the RS, nos. 85/2005, 88/2005, 107/2005, 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, 35/2019, 94/2024.

² Law on Juvenile Offenders and Criminal Legal Protection of Minors, Off. Gazette of the RS, nos. 85/2005.

³ Regulations on the treatment, treatment program, classification and subsequent classification of convicted persons, Off. Gazette of the RS, no. 66/2015.

the aspect of security risks, both in Serbia and in the world, there are several types of risks. Among others, there are risks from the domain of social security, where it is particularly stated: the pronounced strong influence of the informal prison system in large penal correctional institutions and the unfavorable criminological structure of convicts in relation to the types of institutions (Đujić et al., 2024, p. 261).

In the previous period, research was carried out in this direction within the 2023 Prison Life project, starting from the fact that the quality of prison life is one of the fundamental factors of the prison transformation of convicted persons and their successful reintegration, and that as such it is unique in each prison system and each individual institution. This project included some of the largest institutions for the executing of criminal sanctions in Serbia, as it emerges from the expert report: the research was carried out in the prison for women in Požarevac, the closed prison in Sremska Mitrovica and Niš, as well as in the following maximum-security prisons: the prison in Požarevac - Zabela and the prison in Belgrade, due to the complexity of the structure of these institutions and the population of convicted persons who serve prison sentences in them (Ćopić et al., 2023, pp. 16-18).⁴

Unfortunately, this project did not include the only institution of its kind intended for the execution of juvenile prison sentences in Serbia for male convicts of the age of older minors. It is the Penitentiary for Juveniles in Valjevo (hereinafter: Valjevo Penitentiary) which is a closed institution according to the Decree on the Establishment of Institutions for the Execution of Criminal Sanctions in the Republic of Serbia.⁵ In this institution, all juvenile perpetrators of criminal offenses for which this sentence was imposed on the territory of the Republic of Serbia by the competent higher courts,⁶ as well as some younger adults,⁷ are serving the sentence of juvenile prison. In addition to them, individual adults also serve their prison sentences in this institution in accordance with the Rulebook on sending convicted, misdemeanor charged and detained persons to institution for the executing criminal sanctions.⁸

When it comes to the reintegration of convicted persons, there are also less researched aspects of this problem, such as the different types of deprivations that convicts - regardless of age - are exposed to while serving their sentences. This is a

Expert report: Quality of prison life in the Republic of Serbia, Dr. Sanja Ćopić et al., Institute for Criminological and Sociological Research Belgrade, 2023, 16, 18.

⁵Regulation on the Establishment of Institutions for the Execution of Criminal Sanctions in the Republic of Serbia, Off. Gazette of the RS, nos.20/2006-3, 89/2009-8, 32/2010-8, 53/2011-7, 11/2017-9, 13/2022-5), Article 6.

⁶ Article 29-31, 137, Juvenile Law.

⁷ Article 40, 137, Juvenile Law

⁸ Rulebook on Treatment, Program of Action, Classification and Subsequent Classification of Convicted Persons, Off. Gazette of the RS 31/2015, Article 28.

particularly sensitive issue in the case of a juvenile prison sentences, in the Valjevo Penitentiary. Juvenile convicts, above all other convicts in this institution, after entering the juvenile prison sentence for the crimes for which they were convicted, are often at risk of becoming victims of various crimes themselves, including violence, abuse and other forms of victimization by other convicts or even individual staff members. This problem is further complicated by the lack of victim protection mechanisms within the prison system, as well as the fear of reporting abuse due to possible repercussions.

The goal of this paper, which is of a limited scope is, through the research conducted relating to a specific legal and social phenomenon in which convicts in the Valjevo Penitentiary - minors, younger adults, but also adult convicts serving their sentence in this institution, to draw attention to the situations whereupon they can find themselves in conditions where they are not only perpetrators of criminal acts, but can also become victims of certain illegal acts during the time they are serving their sentences, in juvenile prison, i.e. prison sentence.

Execution of sentence of juvenile prison - prison

After the verdict becomes final, older minors or younger adults, sentenced to a juvenile prison sentence, if they are in custody, are brought to serve their sentences, and those who are at liberty are directed by the competent court to report to the Valjevo Penitentiary on a certain day with the aim of rehabilitation and reintegration into society. The execution of a juvenile prison sentence is regulated by the provisions of the Juvenile Law and is based on an individual program of treatment for juveniles that is adapted to his or her personality and in accordance with modern achievements in science, pedagogical and penal practice. A more detailed treatment of the above categories of convicts is regulated by the Rulebook on House Rules of Penitentiaries for Juveniles. Given that certain categories of adults are also serving prison sentences in the Valjevo Penitentiary, in relation to them, the execution of prison sentences is regulated by the provisions of the Law on Execution of Criminal Sanctions and corresponding by-laws.

Juveniles, due to their young age and maturity, usually have underdeveloped abilities to understand the consequences of their actions, and after serving their sentences, they are often exposed to various forms of violence by other convicts, especially older ones. Namely, they can become victims of various forms of violence:

⁹ Law on the Execution of Criminal Sanctions, Off. Gazette of the Republic of Serbia, no. 55/2014, 35/2019.

¹⁰ Regulations on the House Rules for Juvenile Correctional Facilities, Off. Gazette of the RS, no. 71/2006.

¹¹ Article 93, 137-145, Juvenile Law.

physical abuse, mental manipulation or abuse, and sexual violence, which can further complicate their social and psychological development. Also, they can become victims of exploitation by other convicts.

Justice systems often attempt to balance responsibility and rehabilitation when it comes to juveniles, but in many cases, there is a need for additional work on prevention, as well as socialization and psychological support.

In the Valjevo Penitentiary, which is a closed institution, the dynamics of intergroup and interpersonal relationships of the convicts takes on a more pronounced character, to the extent that the perpetrators can become victims of violence within the institution. Informal relationships of convicts in Valjevo Penitentiary often encourage victimization, especially with those convicts whose status in the informal system is not well positioned. Because in almost all closed-type institutions, including Valjevo Penitentiary, not only is there a formal, legally prescribed system, there is also an informal prison system, which is very difficult to control (Arsenijević, 2007, p. 62).

The convicted: perpetrator and victim of a criminal offense

Victimology, as a scientific discipline, deals with the study of victims, and interpretations of this term vary depending on the type of persons sentenced to juvenile prison.

Von Hentig was among the first to warn about the need to protect victims of crimes (Von Hentig, 1948, p. 187). He gave the first systematic description of the different roles of victims in creating crime, claiming that there is a sense in which "the victim shapes and is shaped," and that the interaction between the perpetrator and the victim is a kind of collusion, although without understanding or any conscious participation (Von Hentig, 1948, p. 384). Blesch states that von Hentig tried to understand the role of the victim by distinguishing between the victims of family abuse (e.g. child abuse, murder of parents), spatial-temporal victims (e.g. weekends are more prone to committing crime than working days) and age reasons (Blesch, 2020, p. 4).

The Declaration of Basic Principles for Victims of Crimes and Abuse of Power defines that a victim is a person who has undergone physical or psychological injuries, emotional suffering, material damage or a violation of their fundamental rights, whether these actions be violations of domestic criminal laws or international human rights norms.¹²

In a narrower context, a convict may become a victim due to a specific criminal offense being committed against him within the prison system. In addition, convicts

¹² Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power GA Res. 40/34, Annex 1985. It is not subject to ratification as it is not an international treaty.

can become victims when their rights or interests are directly destroyed or threatened by the criminal behavior of another convict, as well as by the employees of the institution. In a broader sense, a convict can also become a victim due to a violation of his or her legal rights, the violation of their integrity and security. These rights and interests can refer to a wider group of prisoners or even the entire prison system itself, which is viewed as a sociological unit. The victimization of convicts can occur as a result of the omission of both a natural and a legal person who did not act in accordance with the norms or international standards of human rights.

Victimology, especially in the context of the convict population, requires an interdisciplinary approach that includes sociology, psychology, pedagogy and other fields, which in turn enables a deeper understanding and adequate provision of a solution to the issue of victimization. In the context of this paper regarding the Valjevo Penitentiary, inmates are very often both victims and perpetrators of criminal acts in the same time. Although some are not formally victims of criminal acts, they are often victimized due to the delinquent behavior of other individuals or groups with whom they are forced to interact within a closed space. The process of victimization in prison is complex and requires a multidisciplinary approach, which would enable a better understanding of the position of convicts who themselves had inflicted evil, and at the same time became victims.

The tasks of victimology in the Valjevo penitentiary

The need to research victimization within a prison population opens up a wide range of issues associated with victims of criminal behavior and other crimes. The main goal of this research is to create a scientifically based knowledge about the causes of criminal behavior that leads to generating new victims among the convicts. Such a knowledge base plays a key role in the implementation of effective preventive policies, enabling an easier detection of perpetrators and reducing the risk of unnecessary and harmful activities that may occur in the organizational environment, which in turn would ensure the priority of protecting the rights and interests of the victims.

The tasks of victimology within the context of an institutional isolation of convicts in juvenile institutions are focused on several key areas. These includes the following:

- measuring the actual dimensions of victimization among the convicts;
- defining and examining methods of treating victims that arise as a result of prison dynamics;

- research on how society should react to criminal behavior that occurs as a result of the forming and developing of informal convict groups within the system of punishment; and
- identifying, defining and describing in detail the problems faced by victims that are a consequence of the existence of informal prison system.

Primary and secondary victimization of convicts

A convict who becomes a victim of a criminal offense or any other offense suffers both material and moral damage, which can be a combination of both forms. Convict-victims often experience physical as well as psychological traumas, which are directly correlated with the severity and the manner of injury. In addition to the physical violence, psychological problems can also occur due to interaction with other convicts who commit non-violent crimes, but also through the social dynamics within the prison. These consequences represent **primary victimization**, which creates a wide range of problems and challenges in the functionality and adaptation in such a specific social environment of the prison.

In addition to primary victimization, convicts may also be exposed to **secondary victimization**, which is the result of the radicalization of primary victimization. This process most often occurs through the negative reactions resulting from the prison environment, and especially due to the lack of adequate responses from the institutions responsible for the safety and rights of the convicts. In many cases, the victimization of convicts is not sufficiently recognized nor adequately analyzed, starting from the immediate environment and the wider social aspect of the problem.

Practical examples show that many convict-victims are unwilling to report the violence they had undergone by other convicts. A fear of repeated violence, stigmatization and traumatic experiences during the reconstruction of the event often prevent them from seeking help. The inadequate reaction of the administration of the institution only worsens the already difficult situation of those convicts, especially young people who, due to their psychophysical development, are particularly vulnerable to secondary victimization.

When proceedings are carried out in the institution after a crime committed by one or more convicts against another, a balance is often set between the rights of the victim and the rights of the perpetrator. Although the perpetrator's rights are formally recognized, the victim is not given enough attention to minimize the consequences. The secondary victimization of convicts can be direct or indirect.

Direct secondary victimization includes situations where:

- the institution administration treats the victim inadequately;
- the victim receives insufficient protection from threats, intimidation and revenge by violent convicts; and
 - there is a lack of victim protection from stigmatization and negative publicity.

Indirect secondary victimization refers to the following:

- a lack of communication, exchange and flow of information between the convict-victim and the administration of the institution; and
- problems arising in regards to the compliance with the victim's rights, such as the right to compensation for damages from the perpetrator or the persons responsible.

Victimization in prisons, especially in the context of the juvenile system, requires a comprehensive understanding and a multidisciplinary approach that includes sociology, psychology and other relevant scientific fields, in order to provide adequate protection and support to all victims within this specific environment.

Advancement in treatment allows the use of part of the annual vacation outside the institution, as well as paid and extraordinary leave, going out to the city with or without a visit, and extended visits. However, the treatment progress of convicts causes not only a change in the mentioned benefits, but also a significant difference in the level of their victimization. Namely, all of this is directly related to the deprivations of convicts, especially juvenile convicts. Deprivations of convicted persons are otherwise significant for re-education work in general, for the purpose of recognizing the conditions in which the convict community is structured and possibly reducing the conditions and causes that unnecessarily increase the effects of already existing deprivations (Nikolić, 2005, p. 129).

The subject and objective of the research

The subject of the research in connection with execution of juvenile prison sentence and minors as perpetrators and victims of criminal offenses includes the study of the degree of victimization of convicted persons in the Valjevo Penitentiary who, in addition to the retributive character of the imposed sentence, as perpetrators of criminal offenses, have found themselves in situations whereupon they themselves are victims of violence by some other convicted persons while serving their sentence in juvenile prison.

In a previous work of one of the authors of this paper, research had been presented that related to convicts who are in closed treatment. This research showed that "within the informal prison system in Valjevo Penitentiary, there are three clearly differentiated sub-groups of convicts, between which there is a statistically significant difference based on their status and power" (Krstajić, 2015, p. 311). This division was the basis for further research in determining a very important phenomenon in internal prisoner group interaction, first of all in determining the degree of victimization of those convicts in closed treatment and belong to the informal convict system within the penitentiary for minors, analyzed in another study (Krstajić, Vujsanović, Joksimović, 2016).

In this paper, the research refers to the convicts in Valjevo Penitentiary who are in the **open** and **semi-open department** of the institution.

Law on the Execution of Criminal Sanctions and by-laws primarily, the Rulebook on Treatment, Program of Action, Classification and Subsequent Classification of Convicted Persons, provides for the classification and subsequent classification of persons sentenced to imprisonment, according to the assessment of the degree of risk. By classification, convicted persons are sent to a closed, semi-open or open department, and each of these departments has a different level of implementation of security measures and activities. Convicted persons who are in a closed department, apart from the highest level of security, have different dynamics of mutual relations in which the informal prison system has a more dominant role than the role in a semi-open or open department. This research dealt with the degree of victimization of persons sentenced to juvenile prison who are in the semi-open and open department of the Penal Correctional Institution for juveniles and basically showed that there is a significant level of victimization among them. However, the main intention is to place this research in a mutual relationship with the previous research on the degree of victimization of convicted persons who are in a closed department within the Institute. Only then do we get the full dimension of the connection between the classification of convicted persons by department and the degree of their victimization.

The goal of this kind of research is multiple, and includes different aspects:

- increasing the understanding of the complexity of juvenile delinquency and the factors that lead to committing crimes in Valjevo Penitentiary;
- the evaluation of existing legal practices in relation to minors and an identification of areas in which improvement is needed;

- an improvement of rehabilitation programs, in order to enable a better rehabilitation of minors into society, a reduced rate of recidivism and ensured protection of victims;
- developing preventive strategies, in order to reduce the frequency of juvenile crime and violence in society; and
- increasing the protection of the rights of minors, especially those who are both perpetrators and victims at the same time, and who may be particularly vulnerable within the legal system.

Such research can also contribute to creating new policies and laws that will better address the specific needs of minors within the criminal justice system and society as a whole.

The hypothetical framework of the research

The basic hypothesis are:

"In the Penitentiary for Juveniles, there is a statistically significant degree of victimization among convicts who are serving prison terms sentences in the open and semi-open department."

"In the Penitentiary for Juveniles, there is a statistically significant higher degree of victimization of convicts who are in a closed department compared to the degree of victimization of convicts who are in an open, semi-open and open department."

The research sample includes 84 convicts who are serving prison sentences in semi-open department.

The basic research technique used in the process of collecting data related to victimization is survey research, which has provided us with an uniformity in examination, the feeling of anonymity in the respondents, as a very important condition, but also economy.

The dependent variable 'victimization' is covered by a survey of the degree of victimization and is composed of a total of 33 questions, with the following answers offered:

- 1. Never (1 point)
- 2. 1-2 times (2 points)
- 3. Several times (3 points)

We obtained the degree of victimization by the total sum of respondent answers to the questions asked. The minimum score for answers to the victimization questions was 33, and the maximum was 99. Higher scores indicate a higher degree of victimization. Representative questions in the *Victimization* survey:

- 1. Did any convict shout at you in such a way that you were afraid?
- 2. Did any convict make fun of you?
- 3. One of the convicts beat you, did you get beaten?
- 4. Did any convict steal and use your money from the deposit?
- 5. Did any convict intentionally destroy your things?
- 6. Did any convict not allow your sleep and rest?
- 7. Did any convict deliberately tell lies about you, which put you in danger?
- 8. Did any convict insult you because of your appearance?
- 9. Did any convict threaten you with physical violence?
- 10. Did any convict try to touch you in an intimate way even though you didn't want it?
- 11. Did any convicts force you to keep illegal items for them (such as a telephone, dagger, barbell, etc.)?

The test data processed using a sample of convicts should show the validity of the victimization test, that is, whether under the same conditions, in case of repetition, this test would show approximately equal results and whether it has a normal distribution.

The victimization test should show whether and to what extent there is victimization among convict who are serving their prison sentences in the semi-open department of the Valjevo Penitentiary.

The score or sum of the entire victimization test, on a sample of convicts, former members of the informal prison system, indicates whether the distribution of the results on the deprivation test is normal (Skewness and Kurtosis values). The analysis of the sum on the victimization test indicates the values of the arithmetic mean, the standard deviation, as well as the values of the minimum and maximum test scores. The above values are an indicator that compares the value of the sum of victimization obtained on the entire sample of the victimization test among former informal prison system members with the sum values of the victimization test as a whole, on the sample of informal prison system members, as well as the comparison with the values of individual victimization scores for all three subgroups of informal prison system members.

The table called "The analysis of the victimization test sum on a sample of former informal prison system members" shows that after statistical data processing, the arithmetic mean was 43.15, the standard deviation was 9.891, the minimum score on the victimization test was 33 and the maximum score was 66 on the total sample of 84 prisoners. The values of the arithmetic mean, the minimum and maximum scores on the victimization test indicate that there is an evident level of victimization on the total sample of tested convicts.

Table 1Analysis of the victimization test sum

N		84		
N	Missing	0		
	Arithmetic mean	43.15		
Med	dian-measure of central tendency	43.00		
	Std. Deviation	9.891		
	Skewness	.004		
	Std. Error of Skewness	.271		
	Kurtosis	.410		
	Std. Error of Kurtosis			
	Minimum			
	Maksimum	66		

Table 2 shows the descriptive statistics of the victimization test sum. The specified table shows the minimum score for the total sample (84), which is 33 and the maximum score, which is 66, with an arithmetic mean of 43.15 and a standard deviation of 9.891.

 Table 2

 Descriptive statistics of victimization test scores

	No. of respondents	Min.	Max.	Arithmetic mean	Standard deviation
Victimization test score	84	33	66	43.15	9.891

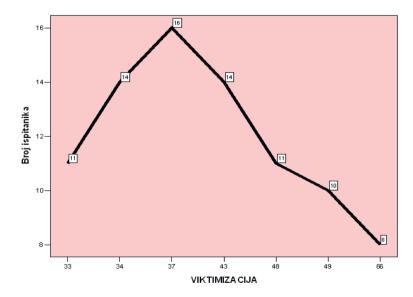
It was important for the authors to determine the distribution of prisoners by victimization scores, which can be seen in Table 3.

Table 3Distribution of convicts according to victimization scores

	Frequencies	%	Sum %
33	11	13.1	13.1
34	14	16.7	29.8
37	16	19.0	48.8
43	14	16.7	65.5
48	11	13.1	78.6
49	10	11.9	90.5
66	8	9.5	100.0
Total	84	100.0	

This is shown in the following diagram, which clearly shows the scores of the victimization test. Out of 84 respondents, only 11 have a minimum score of 33. The rest of the respondents have a victimization score up to 66, which is in the middle of the scale between the minimum score of 33 and the maximum possible score of 99.

Diagram 1Representation of the distribution of respondents by victimization scores



By way of the Kolmogorov-Smirnov test, Table 4 shows the authors whether there is a normal distribution of the victimization test, based on the sample of examined convicts.

Table 4

The Kolmogorov-Smirnov test

		Victimization test score		
N		84		
	Arithmetic mean	43.15		
	Std. Deviation	9.891		
	Absolute	.189		
	Positive	.189		
	Negative	152		
Kolmogorov-Smirnov Z score		1.677		
Significance		.007		

The upper Kolmogorov-Smirnov test shows that the average degree of victimization (arithmetic mean) of convicted persons in open and semi-open departments is 43.15, and that there is a normal distribution, i.e. the significance is greater than 0.05, which in this specific case is 0.07, which means that the null hypothesis H0 is maintained and that distribution is normal

Taking into account the presented data analysis, the hypothesis that reads "In the Penitentiary for Juveniles there is a statistically significant degree of victimization among convicts who are serving prison sentences in open and semi-open department" is fully confirmed.

For a better understanding of the obtained results, the authors believe that it is necessary to explain this hypothesis.

This hypothesis refers to the total group of convicts who are in open and semiopen type departments, without comparing individual groups among themselves. The goal was to determine whether the overall degree of victimization in that group is statistically significant.

In order to check, the victimization test was applied, which consists of 33 questions, where the results reflect the level of victimization of individuals. Analyzing the results, the average value of the score was calculated, which was 43.15 out of a total of 66 possible points, which indicates a high degree of victimization among all convicts in these two departments.

In order to ensure the reliability of the results, a statistical check of the normality of the distribution of the results was performed using the Kolmogorov-Smirnov test. The test result was of significance 0.07, which is above the critical limit of 0.05, and indicates that the results are normally distributed. This confirmed that the average value of the results is representative and that one can reliably speak about the overall level of victimization in the group.

Based on these analyses, it can be concluded that a high and statistically significant degree of victimization was recorded in the entire group of convicts in the open and semi-open departments. This finding confirms the initial hypothesis, that victimization is present and significant in the total population of convicts in those departments.

In the paper entitled "Victimization and informal convict system in juvenile prison" (Krstajić, Vuksanović, Joksimović, 2016) it was proven that the average degree of victimization of convicts who belong to the closed department of the juvenile correctional institution is 49.97.

The table below shows the mentioned result.

 Table 5

 Descriptive statistics of victimization test scores of convicted persons in closed department

	No. of respondents	Min.	Max.	Arithmetic mean	Standard deviation
Victimization test score	102	33,00	83,00	49,9706	9,98658

By comparing the average degree of victimization of convicted persons in a closed department (49,97), which was the task of the mentioned research (Krstajić, Vuksanović, Joksimović, 2016), with the average degree of victimization of convicted persons, who are in open and semi-open departments (43,15), we draw an unequivocal conclusion that there is a higher degree of victimization of convicted persons who are serving prison terms in a closed department.

Based on the above, the second hypothesis in this paper: "In the Penitentiary for Juveniles, there is a statistically significant higher degree of victimization of convicts who are in a closed department compared to the degree of victimization of convicts who are in an open, semi-open and open department", has been fully proven.

In order to better understand the obtained result, the authors believe that it is necessary to explain the second hypothesis.

This hypothesis refers to a comparison of the level of victimization between convicts in different types of department (closed versus semi-open and open department) within a Valjevo Penitentiary. Based on the results of the first hypothesis, where it was determined that convicts in open and semi-open department have a high, but not maximum, degree of victimization, the question arises whether this degree is significantly lower compared to convicts in closed department.

The previous, above-mentioned work from 2016 showed that convicts in a closed department have a high degree of victimization. Accordingly, the current hypothesis assumes that there are statistically significant differences in the level of victimization among the groups of convicts in closed, compared to convicts who are in open and semi-open departments, whereby convicts in closed department are the most victimized, while convicts in open and semi-open departments are less victimized, but that this degree still remains significant.

To confirm this hypothesis, the results of the victimization score for convicts in all types of departments were analyzed. The results showed that there is a statistically significant difference in the levels of victimization between closed versus semi-open and open departments, where the degree of victimization in closed departments is significantly higher than in open and semi-open ones, although the victimization of convicted persons is also significant in those departments.

By comparing the results obtained based on the hypotheses analyzed and explained above, we can confirm with certainty that convicts in semi-open and open departments have a high degree of victimization, but that it is significantly lower than the degree of victimization of convicts in closed departments.

Conclusion

Violence, which is evident among convicted persons, significantly affects the purpose of the criminal sanction. The famous phrase "it's not hard prison, it's hard prisoners" gets its full meaning in this way. The Treatment service, as well as other services in the Valjevo Penitentiary, are involved in the complex process of resocialization and reintegration of convicts.

This research indicates that the success of the course of institutional implementation of treatment in conditions where victimization among the convicts is significantly present, makes institutional action difficult. The dynamics of mutual relations between convicts generates violence through the rules imposed by convicts with

a stronger status, and non-compliance with them produces consequences that are greater than those that would eventually be suffered from violating the rules prescribed by law and by-laws.

There are various categories of convicts serving their juvenile prison sentences or prison sentences in the Valjevo Penitentiary, these being minors, young adults and certain categories of adult convicts, in accordance with the Juvenile Law, i.e. the Law on the Execution of Criminal Sanctions and corresponding by-laws.

All convicted persons while serving their sentence, regardless of whether they were sentenced to a juvenile prison sentence or a prison sentence that is served in the Valjevo Penitentiary, take part in various institutional programs, with the aim of successful reintegration into society.

The stay of convicted persons inside Valjevo Penitentiary is always accompanied by the other, informal side of interpersonal and intergroup relations of convicted persons. The informal system in Valjevo Penitentiary cultivates its own subculture, based on unwritten rules that, if violated, initiate a higher degree of victimization, which is conditioned by the different statuses of convicts in the informal prison system. A part of the convicted persons is in the closed department of the Valjevo Penitentiary, according to the categorization in the treatment procedure. When the level of risk and assessment, primarily by the Treatment Service in the Valjevo Penitentiary, is such that it allows recategorization, certain convicts move to a semi-open department, which has its own comparative advantages when it comes to the benefits that convicts receive. The previous research of the authors of this paper examined the victimization of convicts in closed departments of prisons and it is manifestly high.

The focus of this research was to measure the degree of victimization of convicts in open and semi-open department, with slightly more favorable treatment. In the relevant sample, the degree of victimization of convicted persons was determined, which is significant and evident, and in relation to the degree of victimization of convicts who are in a closed department, it is lower. The above leads to the conclusion that indicates that there are different factors, such as the building conditions, the number of convicts staying together in the same space and the specifics of informal convict relationships, which significantly affect the degree of the victimization of convicts.

Progress in treatment lowers the degree of victimization of convicted persons, primarily due to influence and contact with the status-strongest groups of convicts in the informal system, who are most often in a closed department.

REFERENCES

- Arsenijević, S. (2007). ,Osnovne karakteristike osuđeničkog neformalnog sistema. Intermex, Valjevo *Bilten Okružnog suda u Valjevu*, 1, 61-81.
- Blesh, A. (2020) *Overview of Victimology*, Available at: https://www.academia.edu/44021323/Overview_of_Victimology
- Ćopić, S. *i sar.* (2023) *Ekspertski izveštaj: Kvalitet zatvorskog života u Republici Srbiji, dr Sanja Ćopić i dr.* Beograd: Institut za kriminološka i sociološka istraživanja. https://doi.org/10.47152/prisonlife.d5.4
- Von Heting, H. (1948). *The criminal & his victim: Studies in the sociobiology of crime*. New Haven: Yale university press.
- Djujić, K. et al., (2024) 'Koncept dinamičke bezbednosti i bezbednosni rizici u Ustanovama za izvršenje krivičnih sankcija', in: Nešković, S. (ed.) *Zbornik radova Prekogranična saradnja i razvoj država Zapadnog Balkana*, Beograd: Centar za strateška istraživanja nacionalne bezbednosti CESNA B. 257-274.
- Igrački, J. (2020) *Efekti zatvora u resocijalizaciji osuđenika*. Beograd: Institut za kriminološka i sociološka istraživanja.
- Krstajić, G. (2015). "Maloletnički zatvor i osuđenička tipologija." MREŽA 2015 VII NAUČNI SKUP Zbornik radova "Umrežavanje, nauka, primena NET tworking, Science and Applications (NETSA)". Valjevo: Univerzitet Singidunum, Poslovni fakultet Valjevo, 311-319.
- Krstajić, G., Vuksanović, G., Joksimović, B. (2016). 'Viktimizacija i neformalni osuđenički sistem u maloletničkom zatvoru'. *Biomedicinska istraživanja*, 149-155. https://doi.org/10.7251/bii1602149k
- Nikolić, Z. (2005) *Penološka andragogija sa metodikom prevaspitanja*. Beograd: Institut za kriminološka i sociološka istraživanja.
- Stevanović, Z. (2014) *Tretman osuđenika u zatvorskom sistemu Srbije*. Beograd: Institut za kriminološka i sociloška istraživanja.
- Stevanović, Z., Igrački, J. (2011) 'Efekti kazne zatvora i institucionalnog tretmana u prevenciji kriminaliteta', *Pravna riječ*, Udruženje pravnika Republike Srpske, Banja Luka, (2), 411-415.

INTERNATIONAL REGULATIONS

Declaration of basic principles of justice for victims of crime and abuse of power GA Res. 40/34, Annex 1985 (In Serbian: Deklaracija o osnovnim načelima pravde u vezi sa žrtvama krivičnih dela i zloupotrebe vlasti (2005). Generalna skupština UN, rezolucija 40/34, usvojena 29. novembra 1985)

REGULATIONS

- Krivični zakonik (2005), Sl. glasnik RS, br. 85/2005, 88/2005, 107/2005, 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, 35/2019, 94/2024.
- Zakon o izvršenju krivičnih sankcija (2014), Sl.glasnik RS, br. 55/2014, 35/2019.
- Zakon o maloletnim učiniocima krivičnih dela i krivično pravnoj zaštiti maloletnih lica (2005), Sl. glasnik RS, br. 85/2005.
- *Pravilnik o kućnom redu kazneno popravnog zavoda za maloletnike* (2006), Sl.glasnik RS, br. 71/2006.
- Pravilnik o upućivanju osuđenih, prekršajno kažnjenih i pritvorenih lica u zavode za izvršenje krivičnih sankcija (2015), Sl.glasnik RS, br. 31/2015.
- Pravilnik o tretmanu, programu postupanja, razvrstavanja i naknadnom razvrstavanju osuđenih lica (2015), Sl. glasnik RS, br. 66/2015.
- Uredba o osnivanju zavoda za izvršenje krivičnih sankcija u Republici Srbiji (2006), Sl. glasnik RS, br 20/2006-3, 89/2009-8, 32/2010-8, 53/2011-7, 11/2017-9, 13/2022-5.

© 2025 by authors



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

Journal of Criminology and Criminal Law, 63(1), 79-94 RECEIVED: 15 February 2025 Original Scientific Article

https://doi.org/10.47152/rkkp.63.1.5

UDK: 351.75(497.6)

USE OF FORCE BY POLICE OFFICERS IN BOSNIA AND HERZEGOVINA

ACCEPTED: 2 April 2025

Gojko Šetka^a, Dragomir Jovičić^b

The police indisputably represent one of the most important and, for citizens, the most visible state body. The nature of police activities places it within the realm of concern for every citizen, regardless of their differences. The main reason for this is certainly the powers that the state, through the legislative framework, has conferred upon the police as a specialized state body, enabling the police to effectively carry out their duties. The police are a particularly interesting state body given their authority to apply force against citizens, but strictly in cases prescribed by laws and regulations. It is imperative that police officers can apply force solely in accordance with the prescribed procedures. Since the application of force produces consequences that cannot be subsequently eliminated, it is crucial for police officers to know the legal basis for the use of force, as well as the methods for its use. In this work, by employing scientific methods and collecting data through interviews with police officers from all levels of the police system, we aimed to attain insights into the situation in the area of the application of force by police officers in Bosnia and Herzegovina.

KEYWORDS: police, means of force, coercion, police agency, state.

^a Assistant Professor at the Faculty of Security Sciences, University of Banja Luka, e-mail: gojko.setka@fbn.unibl.org; ORCID https://orcid.org/0009-0008-8910-0038.

^b Associate Professor at the Faculty of Security Sciences, University of Banja Luka, e-mail: dragomir.jovicic@fbn.unibl.org; ORCID https://orcid.org/0009-0005-4989-1224.

Introduction

The state is the primary organization in global society and, as such, holds political and sovereign authority founded on the monopoly of armed power, and regulates key social relations and performs specific functions. Therefore, the state regulates the common life of people. By enacting legal acts, the state authorities forcibly direct important social relations (Jovičić, 2018). The enforcement of laws is carried out by state institutions in name and on behalf of the state, with the police being among the most significant.

The main objective of any state is to retain political and economic power. For this reason, the state has proclaimed core values and prescribed sanctions for their violation. The state has designated bodies that will, in its name and on its behalf, if necessary and under the prescribed conditions, also apply means of force – a term that replaced the earlier term means of coercion. (Jovičić, Šetka, 2023).

Respect for the fundamental rights and freedoms, as enshrined in the European Convention on Human Rights, entails an obligation to preserve these rights and the existence of limitations on the police in pursuit of their objectives. In carrying out police duties, the police must respect everyone's right to life, even though the exercise of police duties may result in the loss of life as a consequence of the use of police force. In carrying out police duties, the police may employ force only when absolutely necessary and only to the extent required to achieve a legitimate objective. (Škrtić, 2007).

It is evident that, in an orderly society, the state holds the monopoly on force. This is why the state bears the responsibility for ensuring the security of its citizens. It is widely acknowledged that certain state functions can only be fulfilled through coercion against individuals suspected of committing criminal offenses or those who need to be deprived of their liberty for other reasons. Since the use of force can cause personal injury (physical pain, etc.), it must not be applied arbitrarily. Any arbitrary use of force could lead to violations of fundamental constitutional and conventional rights, particularly the right to life (Veić, Martinović, 2019, pp. 453-454). Deterrence and justice functions are outsourced to the police, and in return we expect them to be fair, impartial, efficient and effective. (Jackson et al., 2011).

One of the objectives of this paper is to advance knowledge in the field of police sciences, given the well-founded perspectives within the academic community that the production of new police knowledge in our country over the past thirty years has remained at an insufficient level. Consequently, the body of newly generated knowledge on policing, along with numerous theoretical and empirical studies, has had a limited impact and application in the education of police personnel and the execution of daily policing tasks. (Banović, Amanović, 2022, pp. 210-211).

Use of force (coercion)

Police agencies in Bosnia and Herzegovina apply force on the basis of the law and the Rulebook on the Use of Force. In the Ministry of Internal Affairs of the Republic of Srpska, the use of force is regulated by the Law on Police and Internal Affairs of Republic of Srpska (Official Gazette of the RS, No. 57/16, 110/16, 58/19, 82/19 and 48/24), as well as the by the Rulebook on the Use of Force adopted in 2010. Police agencies at the level of Bosnia and Herzegovina's joint institutions apply force based on the Law on Police Officers of Bosnia and Herzegovina (Official Gazette of BiH, No. 50/2008, 63/2008, 35/2009, 7/2012 and 42/2018 - Constitutional Court decision), as well as the Rulebook on the Use of Force from 2005. Article 1 of the Rulebook on the Use of Force applied by the police of Republic of Srpska defines only the conditions for the application and types of means of force (Official Gazette of RS, No. 98/10). Meanwhile, Article 1 paragraph 2 of the Rulebook applied by police agencies at the level of Bosnia and Herzegovina's joint institutions defines force as the use of physical strength, batons, means of restraints, chemical agents, water cannons, roadblocks, specialized vehicles, special types of weapons and explosive devices, trained police dogs, and firearms. In addition to these "traditional" means of force, there is increasing mention of electrical devices, particularly the Taser. The Taser, an electronic control device (ECD), as a means of coercion was invented by Jack Cover in the 1960s (Definis-Gojanović, Alujević, 2011; Tadijanović, 2017; Jozić, Pejaković-Đipić and Pačelat, 2022) with the aim of developing an effective yet non-lethal weapon that uses electric current to incapacitate a person without causing lasting harm to their psychosomatic status of the affected person (Jozić, Pejaković-Đipić and Pačelat, 2022, pp. 248).

Although the legal terminology in the Republic of Srpska and Bosnia and Herzegovina now refers to "force" rather than "coercion," we believe some clarification is necessary. Namely, etymologically the terms "force" and "coercion" do not have the same meaning, despite their similarities. This raises the question of whether this terminological shift was justified. If we stick to the actual meaning of these words, the answer is clear – this shift should not have been made. The key reason why this substitution of terms should not have been made is that "force" implies an action occurring independently (e.g. natural forces), whereas "coercion" involves compelling someone to act against their will. In practical terms, a police baton cannot be considered a tool of "force" if it requires a police officer to put it into function and actually compel a person to behave in a certain way, therefore, it is clear that a baton is a means of coercion, not force (Jovičić and Šetka, 2023).

Coercion, in a broad sense, refers to the use of physical or psychological pressure to achieve a particular outcome, forcing someone to act, refrain from acting, or endure a situation against their will. Therefore, in a broader sense, coercion involves overriding another person's will to accomplish a goal (Stevandić, 2022; Milosavljević, 1998; Miletić and Jugović, 2019). Only coercion carried out on behalf of the state has a legal character, that is, the character of coercion permitted by law and differs from unauthorized and unlawful coercion that is prohibited and punishable by law. The legal character of coercion is defined by its objectives and the conditions under which it is applied (Milosavljević, 1997).

It is important to emphasize the fact that police officers use their powers in contact with citizens for preventive reasons. In most cases, these are perpetrators of punishable acts and offenses such as violent people, intoxicated individuals, mentally ill persons, or other problematic actors). From this context it follows that if there are reasons for such an intervention, if it is necessary to protect people's lives, to establish public order and peace, police officers must, or rather are obliged to intervene against such a person. However, they do not have the right to personal judgment! (Tulezi, 2000).

Whenever force is used, the law mandates that the police officer involved must submit a written report to their superior as soon as possible, but no later than 24 hours after the use of force. The use of means of coercion (force) is one of the most common reasons why citizens complain to various addresses. These complaints are particularly frequent after incidents in which physical force is used against them. In response, modern legal frameworks, including those in Bosnia and Herzegovina, have established clear regulations on the use of force (coercion). Despite Bosnia and Herzegovina having 20 independent police agencies, each has its own rulebook governing the use of force.

Furthermore, it should be noted that the use of force is similarly regulated by various international documents – the United Nations Code of Conduct for Law Enforcement Officials, the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, the Declaration on the Police and the European Code of Police Ethics (Dapčević-Marković, 2006; Marković, 2014).

Professional and credible police take care to enjoy the highest possible level of trust among citizens. Trust in the police essentially represents the belief that the police are aware of the needs of their citizens, and are therefore ready to protect their needs and interests (Cao, 2015). Accordingly, trust in the police is a belief that the police have the right intentions towards citizens and are able to act in a competent way in specific situations. Because trust is a dynamic and situational social construction, it reflects personal experiences, media images, and common beliefs as well (Boda, Medve-Balint, 2017). For trust in the police, the perception of legitimacy, i.e.

the trust in the police that citizens have and the acceptance of police authority and following the decisions made by police officers is important (Tyler, 2011).

In a democratic society, the police have a dual role. On one hand, they protect our security by protecting property, they ensure that we travel safely, they protect us from attacks. On the other, they are also responsible for upholding fundamental human rights. In society, while governments are expected to serve their citizens, the police often deliver "services" that may be unwelcome—such as issuing orders, imposing fines, or depriving individuals of their liberty (Borovec, Dunaj, 2022, according to Roberg et al., 2015).

Any form of unprofessional conduct by police officers or the police organization as a whole influences public perceptions of the police, and, consequently, overall trust in the police. It is clear that exceeding the authority and unlawful use of force by police officers are among the most significant factors eroding public confidence in police.

The use of force by police is a specific law enforcement action governed by a complex framework of laws and regulations. Although such actions may be legally justified in certain situations, researchers have long debated the extent to which police use of force is perceived as justified or unjustified in the eyes of the public. When citizens are satisfied with the police, when they believe that the police are credible and impartial, they are more likely to justify various police actions. It has also been shown that individuals who identify more strongly with the police are more likely to justify police use of force in specific situations precisely because they believe that police officers share the same values as them. On the other hand, when individuals strongly identify with the social group to which the person against whom force was applied by the police belongs, they will be less likely to justify such a course of action because they trust their social group (Bradfor et al., 2017 Kuhns and Knutsson, 2010).

Some scholars argue that in recent decades, Legal authorities are increasingly recognizing the importance of generating and sustaining their legitimacy in the eyes of citizens, and if they are to encourage public support and cooperative/compliant behaviour, they should ensure that police take action in accordance with procedural justice, and the use of force is one of those actions (Gerber, Jackson, 2017). If the police lose the trust of the citizens, this has far-reaching consequences on its efficiency in performing its duties, which negatively affects its work results.

When using force, police must take care not to use excessive force. Excessive force exists in the case when a police officer used force of greater intensity than what is necessary to resolve a lawfully initiated action. For example, means of coercion are not applied in accordance with the principle of proportionality, if the intensity and extent of their application were not adapted to the source and form of the threat (Kesić, 2018, p. 38; Walker and Archbold, 2018).

Research methodology

The subject of this research is to measure the knowledge, experience, awareness, and the way of acting in certain situations in current practice. It also aims to assess the situation in the field of use of force by police officers who were interviewed during the research.

The objective of this research is to determine the level of police officers' knowledge in the field of use of force, and to assess whether regulatory frameworks require amendments in order to improve the situation in terms of that a police officer applies his/her powers with minimal adverse effects on citizens and their fundamental human rights and freedoms, and in order to perform his/her official duties in the most efficient way. Furthermore, one of the goals is to identify practical challenges in the use of force, in order to propose solutions for them, and try to contribute to improving this area.

The core purpose of this research is to provide an accurate assessment of the current state of police use of force and, to understand the issues in this area that may lead police officers to refrain from using force even when legal conditions for its application are met.

Hypothesis: Police officers have insufficient knowledge of the legal basis for the use of force and lack adequate training in its proper application and justification. As a result, they tend to avoid using force in practice.

Sample

The total sample of respondents interviewed in this research was 116 police officers. Therefore, the sample in this study consisted of employees of police agencies across Bosnia and Herzegovina. If each police agency is considered a separate subsample, the study comprised eight subsamples, namely: (1) police officers of the Ministry of Internal Affairs of the Republic of Srpska (N=26), (2) police officers of the State Investigation and Protection Agency (N=15), (3) police officers of the Ministry of Internal Affairs of the Federation of Bosnia and Herzegovina (N=17), (4) police officers of the Ministry of Internal Affairs of the Herzegovina-Neretva Canton (N=17), (5) police officers of the Directorate for Coordination of Police Bodies of Bosnia and Herzegovina (N=15), (6) police officers of the Ministry of Internal Affairs of the Central Bosnia Canton (N=10), (7) police officers of the Border Police of Bosnia and Herzegovina (N=7) and (8) police officers of the Brčko District Police (N=9).

Data collection method

The interview protocol for data collection used in this study was developed by the authors Jovičić and Šetka (2024), based on their professional, practical and theoretical experience. The protocol was semi-structured, with questions adapted in such a way that they could provide answers to solve the hypothesis set, as well as to obtain data that should contribute to establishing facts that would contribute to achieving the research objectives.

The research was conducted on the territory of Bosnia and Herzegovina in the period from June to December 2024.

Results and discussion

Through research conducted across the aforementioned police agencies of the police system in Bosnia and Herzegovina, we obtained clear indicators of the current situation in the area of the use of force by police officers. Below, we present some of the most relevant parts of the excerpts from the interviews we conducted with the interviewed police officers, which are directly related to the hypothesis set in this paper, i.e. the research conducted.

General jurisdiction police, which operate daily in the security sector and maintain direct contact with the public, frequently find themselves in situations requiring the use of force. However, training on the use of force remains one of the most neglected aspects of police education.

A police station commander explains: "Our police station, whose officers frequently – if not daily – use force, barely receives any training on the use of force. It all comes down to one live-fire exercise per year and a single refresher session on regulations before the annual test." (Interview B–3). Similar responses were recorded across other police agencies, leading to the conclusion that insufficient attention is paid to the training of police officers in the use of force.

Our research also revealed inconsistencies in the legal framework governing the use of force across Bosnia and Herzegovina. For instance, we have a situation where when using restraints in entity-level and canton-level police agencies, no report on the use of force is required, but only an official note is made. In contrast, police agencies under the jurisdiction of state-level institutions must submit a formal report whenever force is used. Furthermore, there are discrepancies in how the use of firearms by police officers is defined. Entity-level regulations consider the use of a firearm as firing at a person, whereas in Brčko District and at the state level, it includes merely pointing a firearm at a person.

A SIPA inspector states: "In terms of use of force our agency, unlike entity-level police agencies, considers the pointing of a firearm by a police officer at a person as a use of force, requiring a formal report. In entity-level agencies, however, only the act of firing a weapon at a person is classified as the use of force. Therefore, an official report on the use of force is required in situations when we fire a weapon. Likewise, when restraints are used, an official report on the use of force is not required in entity-level police agencies, but only an official note is made. In our agency, a report on the use of force must be written for any use of restraints" (Interview B–27).

Due to the complexity of the police system in Bosnia and Herzegovina, which can be defined as a complex uncoordinated system, there are problems that are also reflected in the area of the use of force. First of all, we are thinking of keeping records on the use of force. Only the Ministry of Internal Affairs of Republic Srpska maintains a single database that is unified and centralized for the part of the territory for which this police agency is competent. In contrast, no such database exists at the entity level in the Federation of Bosnia and Herzegovina.

One of the employees of the Police Administration of the Ministry of Internal Affairs of the Federation of Bosnia and Herzegovina explains: "Three years ago, we attempted to establish a single database on the use of force at the entity level. However, several cantonal police agencies refused to provide their data for the single database for the Federation of BiH, effectively boycotting the initiative. As a result, the effort failed at that time and we, as the umbrella police agency in the Federation of BiH, still lack a unified database. Only the cantonal police agencies have databases, which they maintain separately for their own needs" (Interview B–93).

The interviewed police officers expressed their views almost identically regarding the most frequently used means of force. All claim that physical force, which includes martial arts, is most often used first, and then the baton is used. Firearms are rarely used. According to a police chief: "Sometimes, out of fear, police officers skip the use of physical force and go straight to using a baton. This can create significant problems when justifying the use of force by a police officer, as the principle of restrictiveness has not been fully observed" (Interview B–41).

Training in the field of specialized physical education, the use of force, as well as writing of the reports on the use of force, which should be conducted in local-level police stations of police agencies, is virtually nonexistent in practice. A deputy police station commander states: "It is planned that we undergo training in the field of specialized physical education, but in our station, it is not conducted. In conversations with other colleagues from other police stations, as well as other police agencies, such training is not carried out at all in police stations of general jurisdiction.

Sometimes, we get together and go to the gym to play indoor football, that is our only physical activity. Otherwise, the only training some younger officers receive is working out in the gym. Additionally, in the 20 years I have worked here, we have never received training on writing reports on the use of force, even though it would be very useful. Basically, all training on writing reports comes from a few more experienced colleagues helping us when reports need to be written" (Interview B–46). The following statement by the security sector head should be added to this: "Probably at least 50% of police officers refrain from using force in practice because they know that it will be a problem to write a report later, and that they will face additional challenges. This is not good for the reputation of the police at all, as citizens expect the police to intervene in certain cases, and officers, in order not to justify the use of force later, refrain from doing so and chose not to act at all" (Interview B–73).

Thus, we have discovered that reports on the use of force are sometimes not submitted, even when force is used. This was especially the case in the earlier period in the canton-level police agency that, for an extended period, lacked an appointed commissioner and a fully constituted Police Board. We can see this best according to the statement of a shift leader in the intervention group in the police station: "In the earlier period, since we did not have a commissioner appointed for a long time, due to political problems between the ruling majority, as well as because internal supervisory bodies were not constituted in our police agency, we hardly ever filed reports on the use of force. In my practice, as a member of the intervention group in the police station, I have used firearms four times. I submitted a report twice, but twice I did not. Likewise, during that period, reports on the use of physical force and batons were almost never filed. This has changed in recent times" (Interview B–52).

It is evident that police agencies in Bosnia and Herzegovina have a problem with the lack of a sufficient number of police officers. Among the police agencies in which we conducted our research, only one police agency does not have a problem with the lack of a sufficient number of police officers. Other police agencies have a significant lack of police officers, which in practice is also reflected in the use of force. This creates insecurity among police officers, but also damages the reputation of the police among citizens, and creates a perception that the police are no longer capable of resolving certain problem situations. The commander of a police station in a canton-level police agency states: "We have a problem with the lack of a sufficient number of police officers because a significant number of police officers have retired in the last few years. For us, in terms of the use of force, this means that our police officers are increasingly refraining from using force even when the legal conditions for its use are met. This causes major problems for us and damages our reputation among citizens. It creates an image of us as incapable of handling problematic situ-

ations. Furthermore, this has led to a situation in which, I guarantee, at least 80% of police officers avoid using force. he first reason is a lack of knowledge of regulations in this field, the second is the shortage of officers, and the third is the challenges they face after using force. That is my view" (Interview B–103).

Personal safety measures when using force should be strictly observed. Adhering to these measures is the only way to mitigate risks for police officers. However, our research revealed that almost none of the respondents respected these measures or adhered to them. The respondents believe that they are not sufficiently familiar with all safety measures, but also that little attention is paid to them when performing police duties. The head of the security sector at the police station stated: " If we received regular training, observing personal safety measures when using force would become second nature to us. We would apply them automatically in every intervention. In this way, we are left to ourselves, focusing primarily on resolving the problematic situation we encounter" (Interview B–32).

Police officers believe that the prosecution lacks understanding of their use of force, and some feel that, sometimes, prosecutors are on the side of the person against whom force has been justifiably used. This can best be seen in the example of the commander of a police station in an entity-level police agency. The commander of the police station shared the following: "When we talk about the use of force, I can personally testify that the prosecution has a negative attitude towards the police. Whenever a citizen presents an injury report to a prosecutor, an investigation is launched immediately without even determining whether the use of force was justified. Charges are promptly filed against us. I have personally faced at least ten charges, and each time I was acquitted in the end. The pressure from the prosecution is significant. Here, to give you an example, I was baselessly accused by a person recently that I used force on him, despite having seven witnesses testifying that I did not, while my accuser had none. A medical expert report even confirmed that the redness on the accuser's neck was not an injury but likely a transient allergic reaction. Nevertheless, the prosecutor still filed charges against me. After the court acquitted me in the first instance, the prosecutor appealed the decision" (Interview B-57).

Given the perception that the prosecution exerts undue pressure on them when they use force, police officers have developed a strong sense of solidarity. We say this because we received confirmation from all respondents that when an assessment is made that a police officer used force in accordance with the law, then one can clearly feel the support of colleagues for the police officer who used force. According to a police officer employed in a police station of an entity police agency: "When one of us uses force, and we determine that it was done in accordance with the law, we all try to ensure that the

incident report is written as thoroughly as possible. We do this because we know that there will certainly be pressure and that the use of force will be challenged by various control bodies, first and foremost, by the prosecution. I must also highlight that in our police station, and as far as I know in others as well, supervisors always stand by their police officers when force is used lawfully. This is one of the few positive aspects in an otherwise challenging environment when it comes to the use of force" (Interview B–26).

In discussions with respondents regarding the adequacy of the current legal framework for the effective use of force, we received nearly identical responses. For the most part, all respondents agreed that the existing legal framework governing the use of force is sufficient for the effective execution of police duties that require the use of force. However, respondents from the police agency operating in the territory of the Brčko District made a complaint about the legal framework. This complaint is best reflected in the statement of an internal control inspector: "I believe that certain amendments should be made to the laws and regulations governing the use of force. I think that the current regulations do not clearly define the so-called formation-based means of force. I believe that the individual means of force applied by police officers are clearly defined, however, the formation-based means of force (which should be applied by several police officers simultaneously) are inadequately defined and clear amendments to the laws and regulations need to be made there" (Interview B–82).

A key focus of our research was to determine, based on respondents' perspectives, the extent to which police officers are familiar with the legal grounds for the use of force. We tried to establish how much police officers know the legal basis for the use of all means of force, as well as how much they know the legal basis for the use of the most commonly used means of force - physical force and police batons. Regarding knowledge of the legal basis for the most commonly used means of force, the respondents claim that only 50% of police officers know the legal basis for the use of physical force and police batons. According to the statement of the police station commander: "I believe that only 50% of police officers are familiar with the legal basis for using certain means of force, such as physical force and police batons. However, when it comes to the legal basis for all prescribed means of force, I doubt that even 20% of officers have sufficient knowledge" (Interview B-10). Furthermore, summarizing our findings, the respondents believe that no more than 40% of police officers know the legal basis for the use of all means of force. It is worrying that a significant number of respondents claim that not even 20% of police officers know the legal basis for the use of all means of force. According to the statement of the deputy commander of one of the largest police stations in a police agency: "I believe that not even 10% of police officers know the legal basis for the use of all police powers, because this includes the so-called formation-based powers, which are most often known only to the heads of organizational units. The majority of police officers, police officers with general jurisdiction, show little interest in understanding when these police powers can be used. Additionally, I believe that members of traffic safety police stations know very little about the legal basis for the use of force" (Interview B–13).

Finally, let us list some of the results of a survey conducted in the Republic of Serbia, which shows that the situation is similar to that in Bosnia and Herzegovina. The survey concerned the use of firearms, and was conducted among 306 police officers. "Almost half of respondents (47%) believe that police officers of the Ministry of Interior are not well trained to use firearms (X=2.83), and a similar percentage of respon dents (44.8%) believe that police officers in the irunit are notwell trained to use it (X=2.89). When it comes to persona lability to use firearms, 54.6% of respondents believe that they are well trained to use firearms (X=3.34). Regarding the training for the use of firearms durin gpolice training, 53.6% of respondents believe that a lot of attentionis paid to the oretical content (X=3.33), while in contrast to such high percentages, 51.9% of them believe that not enough attentionis paid to practical content (X=2.67). 53.9% of respondents (X=2.51) believe that the Serbian police do not pay enough attention to training for the use of firearms. When it comes towritten forms foruseof firearms, as many as 61.1% of respondents believe that they are complicated to fillout (X=2.32), while even mor erespondents (65%) believ ethat it takes a lot of time to fill the mout (X=2.22). Only 32.7% of respondents oppose the assessment that police officers should be given greaterd is cretionary powers touse firearms (X=3.27). " (Turanjanin, Otašević, Janković, 2024, pp. 10).

Conclusion

If we take into account the findings we have obtained through our research, then we can summarize it through several general conclusions that unequivocally reflect the current state of police use of force in Bosnia and Herzegovina. First and foremost, we have undoubtedly realized that insufficient attention is paid to the training of police officers in the field of the use of force, and that this situation should be changed in all police agencies.

Furthermore, we observed that training in specialized physical education, i.e. the use of force, as well as writing reports on the use of force, which should be held in police stations at the local level of police agencies, is virtually non-existent in practice. This is a serious shortcoming, as effective and lawful application of force, along with its proper justification, cannot be expected without adequate training. The above may ultimately negatively affect the decision of police officers to use force even when the legal conditions for its use are met, can result in a pattern of opportu-

nistic behavior among police officers. Additionally, the above can seriously affect the inefficient performance of police work and the weakening of the police's reputation among citizens, as well as the loss of citizens' trust in the work of police agencies.

Our research also revealed that many police agencies are struggling with a shortage of personnel. Such a situation negatively affects the results of police work in terms of the use of force, i.e. on police officers who, although the conditions for the use of force are met, refrain from using force in their actions. According to the respondents, this happens when they are aware that they do not have a sufficient number of police officers in the field who are necessary for the successful execution of a police task and the use of force. Then they feel insecure and give up on the use of force, as well as on solving a police task in general. It is not difficult to conclude that these situations further damage the reputation of the police among citizens.

The statements of the respondents also led us to the conclusion that police officers frequently fail to adhere to personal safety measures when using force. We also consider this unacceptable because only by applying personal safety measures can police officers be protected from the negative consequences of the use of force. Almost all respondents believe that they are not sufficiently familiar with these measures, and that little attention is paid to them in daily policing. They justify their failure to comply with personal safety measures by the routine performance of their duties, as well as their lack of training. These measures should be part of the automatic behavior of police officers when using force, and this is currently not the case.

However, the most alarming finding of our study is the unacceptably low level of legal knowledge regarding the use of force among police officers employed in Bosnia and Herzegovina police agencies. Even under optimistic estimates, at least 50% of officers lack a sufficient understanding of the legal basis for using force, while some estimates suggest this figure could be as low as 20%. This is an unacceptable situation that requires urgent remedial action. In the short term, foundational legal training in this area should be prioritized for all police officers. The current situation in this area certainly has a detrimental impact on the efficient performance of police duties, the safety of citizens, and the reputation that the police have among citizens.

In conclusion, our research fully confirms the initial hypothesis: *Police officers have insufficient knowledge of the legal basis for the use of force and lack adequate training in its proper application and justification. As a result, they tend to avoid using force in practice.*

LITERATURE

- Banović, B. and Amanović, Đ. (2022) 'Policijske nauke u Republici Srbiji stanje i ciljevi'. Revija za kriminologiju i krivično pravo, 60(2), 203-215. https://doi.org/10.47152/rkkp.60.2.10
- Boda, Z. and Medve-Balint, G. (2017) 'How perceptions and personal contact matter: The individual-level determinants of trust in police in Hungary', *Policing and society*, 27 (7), 732-749
- Borovec, K. and Dunaj, A. M. (2022) 'Različitosti u pogledima na poželjne kompetencije policijskih službenika', *Policija i sigurnost*, *31*(2), 101-117.
- Bradfor, B., Milani, J., Jackson, J. (2017) 'Identity, legitimacy and "making sense" of police use of force'. *Policing: An International Journal*, Vol. 40 (3), 614-627. https://doi.org/10.1108/PIJPSM-06-2016-0085
- Cao, L. (2015) 'Differentiating confidence in the police, trust in the police, and satisfaction with the police'. *Policing: An International Journal of Police Strategies & Management*, 38(2), 239-249. https://doi.org/10.1108/PIJPSM-12-2014-0127
- Definis-Gojanović, M. and Alujević, A. (2011) "Električni paralizatori djelovanje na ljudsko tijelo i zdravlje". *Policija i sigurnost*, 20 (3), 435-440.
- Dapčević-Marković, Lj. (2006) 'Evropski standardi u radu policije'. *Bezbednost*, 48 (5), 726-747.
- Gerber, M., & Jackson. J. (2017) 'Justifying violence: legitimacy, ideology and public support for police use of force'. *Psychology, Crime & Law*, 23(1), 79-95. https://doi.org/10.1080/1068316X.2016.1220556
- Jovičić, D. (2018) *Uvod u pravo*. Novi Sad: Faculty of Law and Business Studies Dr Lazar Vrkatić.
- Jovičić, D. and Šetka, G. (2023) *Organizacija i nadležnost policije*. Banja Luka: Faculty of Security Sciences, University of Banja Luka.
- Jackson, J. et al. (2011). Trust in justice: Main results of the fourth round of the European Social Survey. London: City University.
- Jozić, M., Pejaković-Đipić, S. and Pačelat, J. (2022) 'Električni paralizator kao moguće sredstvo prisile u postupanju policijskih službenika'. *Policija i sigurnost*, 31 (3), 247–269.
- Kesić, Z. (2018) 'Policijska brutalnost i tortura sličnosti i razlike'. *NBP Nauka, bezbednost, policija,* 23 (1), 35-50. https://doi.org/10.5937/nabepo23-17166

- Kuhns, J.B. and Knutsson, J. (2010) *Police use of force a global perspective*. Praeger, Santa Barbara, Ca. In: Nickel, O. (2015) *Critical Factors in Police Use-of-Force Decisions*. Doctoral dissertation. Walden University: College of Social and Behavioral Sciences.
- Milosavljević, B. (1998) 'Diskreciona vlast policije'. Pravni život, 46 (12), 1049-1060.
- Milosavljević, B. (1997) Nauka o policiji. Belgrade: Police Academy.
- Miletić, S., Jugović, S. (2019) *Pravo unutrašnjih poslova*. Belgrade: Criminalistic and Police University.
- Marković, S. (2014) 'Praktični aspekti primene nekih policijskih ovlašćenja i obavljanja poslova'. *Bezbednost*, 56 (1), 104-125.
- Stevandić, D. (2022) 'Policijsko ovlašćenje prilog teorijskopravnom određenju pojma'. *Bezbednost*, 64 (2), 119-144. https://doi.org/10.5937/bezbednost2202119s
- Škrtić, D. (2017) 'Međunarodni pravni standardi kojima se uređuje policijska uporaba sredstava prisile'. *Hrvatski ljetopis za kazneno pravo i praksu*, 14 (1), 187-214.
- Turanjanin, V., Otašević, B., Janković, B. (2024) 'Police Use of Deadly Force in Serbia: The Police Officers' Perception'. *SAGE Open*, 14 (2), 1-16. https://doi.org/10.1177/21582440241259703
- Tadijanović, J. (2017) *Uporaba tasera kao mogućeg sredstava prisile (graduation thesis)*. Zagreb: Police College.
- Tyuler, T.R. (2011) 'Trust and legitimacy: Policing in the USA and Europe'. European Journal of Criminology, 8(4), 254-266. https://doi.org/10.1177/1477370811411462
- Tulezi, J. (2000) *Policija i javnost*. Zagreb: Police Academy Ministry of Internal Affairs of the Republic of Croatia.
- Veić, P. and Martinović, I. (2019) 'Uporaba vatrenog oružja i drugih sredstava prisile pri uhićenju normativna ograničenja u kontekstu prava na život i zabrane mučenja te odgovornost policijskih službenika. *Policija i sigurnost*, 28 (4), 453 467.
- Walker, S. E. and Archbold, C. A. (2018). *The new world of police accountability*. Thousand Oaks, CA: Sage Publications.

OTHER SOURCES

Rulebook on the Use of Force, Official Gazette of Bosnia and Herzegovina, No. 20/05. Rulebook on the Use of Force, Official Gazette of Republic of Srpska, No. 98/10.

Law on Police and Internal Affairs of Republic of Srpska, Official Gazette of Republic of Srpska, No. 57/16, 48/24.

Law on Police Officers of Bosnia and Herzegovina (Official Gazette of Bosnia and Herzegovina, No. 50/2008, 63/2008, 35/2009, 7/2012 and 42/2018 – Constitutional Court decision).

UN, Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, 1990.

UN, Code of Conduct for Law Enforcement Officials, 1979.

Council of Europe, European Code of Police Ethics, 2002.

© 2025 by authors





This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

Journal of Criminology and Criminal Law, 63(1), 95-118 RECEIVED: 6 May 2024
Review Article ACCEPTED: 13 May 2025

https://doi.org/10.47152/rkkp.63.1.6

UDK: 343.8(497.11)

THE PROBLEM OF PRISON OVERCROWDING WITH A FOCUS ON THE SITUATION IN THE REPUBLIC OF SERBIA

Milica Simovića

In recent years of the 21st century, prison systems have faced an enormous increase in the number of inmates worldwide. Whether overcrowding has always been a problem or is a result of modern times is an interesting question that numerous theorists have attempted to answer by explaining this phenomenon from various aspects, pointing out possible causes, consequences, certain solutions, and characteristics of the population that characterize many prisons. There is also a significant social impact, as every society, regardless of social class, has its own opinion on the purpose of prisons and the population housed within them. How the prison population changes, what transformations it brings, and what possible ways exist to overcome prison overcrowding are key questions that the author addresses in the paper, emphasizing that overcrowding as a trend, judging by statistical data and numerous literature, threatens to exceed all capacities and inflict severe social, physical, and psychological consequences on the incarcerated.

KEYWORDS: prisons, increase in the number of inmates, causes of overcrowding, ways to reduce overcrowding, alternative sanctions, resocialization

^a Master of Law (LL.M.), e-mail: simovic.milica17@gmail.com

Introduction

Prison overcrowding as a global problem can be defined as a situation that arises when there are more inmates in prisons than the accommodation capacities allow (Grujić, Milić, 2016, p. 286). A relevant indicator of the increase in the number of inmates is the calculation of the incarceration rate per 100.000 inhabitants in a country (Ignjatović, 2018, p. 185). Due to the heavy burden on correctional facilities, the work on the development of inmates' personalities aimed at their resocialization and reintegration into social norms is hindered.

When discussing the term inmate, we should not limit ourselves solely to individuals convicted in criminal proceedings, but also include individuals who are detained during the criminal proceedings, those held in pre-criminal proceedings, as well as those who have been sentenced to some form of security measure related to deprivation of liberty. Imprisoning perpetrators of both minor and serious criminal offenses has become a common way of responding to the problem of criminality, which in turn has led to an increase in the number of inmates worldwide (Ilić, 2011b, p. 246).

Statistical data from around the world indicate that the problem of prison over-crowding is highly complex, and that attention and effort must be invested to overcome it with more rational solutions. This is a problem that affects the entire world, not just some countries or specific regions, and therefore the following is a detailed overview of the increase in the prison population both globally and in the Republic of Serbia.

Increase in the Prison Population Worldwide

The constant increase in the global prison population dates to the 1980s (Ilijić, 2015, p. 304). If statistical data were used as a relevant source, it is highly likely that by comparing them, one would conclude that prison overcrowding and the ever-growing numbers are leading to an increasingly severe crisis in correctional institutions.

In 2017, the Institute for Criminological Research at Birkbeck University in London presented an interesting statistic, stating that there were as many as eleven million people behind bars worldwide. The United States ranked first on the list of countries with the highest number of prisoners, with as many as 2,2 million. China, as a rapidly developing country, held 1,65 million inmates, while Russia ranked third with 640.000 prisoners. Brazil (607.000), India (418.000), Thailand (311.000), Mexico (255.000), and Iran (225.000) followed closely behind.

It was estimated that the country with the highest incarceration rate was Seychelles, where 799 convicted individuals per 100.000 inhabitants were behind bars.

The United States ranked second with 698 prisoners per 100.000 residents, followed by Turkmenistan, Cuba, El Salvador, Thailand, Belize, Russia, and Rwanda. In contrast to these countries that dominated the overcrowding list, it is important to highlight those that managed to remain immune to excessive numbers of inmates, such as San Marino with only 2 prisoners, Liechtenstein with 8, Monaco with 28, and Andorra with 55 prisoners.¹

By comparing data from 2020, it was highlighted that the global prison population still faces the issue of 11 million people behind bars, with at least 124 countries exceeding their accommodation capacities.² A year later, the Prison Policy Initiative reported that each U.S. state incarcerates more people than any country in the world, pointing out that New York and Massachusetts are progressive in their incarceration rates. The report also emphasized that, compared to the rest of the world, every U.S. state overly relies on prisons as a response to criminal offenses.³

If we were to analyze the prison overcrowding in European countries, we would see that the incarceration rate has also increased there. An annual growth of 2,3% in the number of prisoners in European prisons was observed during the period from 2021 to 2022, while the global prison population increased by 20% since 2000, representing 2% more compared to the total global population, which stands at 18% (Skakavac, Trajković, 2019, p. 74). The highest number of prisoners was in Turkey, with more than 300.000 inmates and an incarceration rate of 355 per 100.000 prisoners. Following Turkey, the countries with the highest incarceration rates were Azerbaijan (217), Hungary (194), and Lithuania (191). As pointed out, in addition to countries struggling with high incarceration rates, nations such as Norway (56), the Netherlands (54), and Finland (50), which have populations of less than one million, have succeeded in reducing their incarceration rates.⁴

The incarceration rate is not a static category; it is constantly fluctuating, either increasing or decreasing. It is more than evident that this is a serious global problem that needs to be stopped. Organizations that collect information about prison systems around the world attempt to demonstrate how prison overcrowding is a complex problem and that it is necessary to address it to achieve one of the main purposes of punishment — to be able to implement proper treatment of prisoners

¹ 11 million people are in prisons around the world. Available at: https://www.politika.rs/scc/clanak/387260/ Hronika/U-zatvorima-sirom-sveta-11-miliona-ljudi (Accessed: 31 August 2021)

² Prisons are "in no way equipped" to deal with COVID-19. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7252088/ (Accessed: 17 April 2024).

³ States of Incarceration: The Global Context 2021. Available at: https://www.prisonpolicy.org/global/2021.html, (Accessed: 13 February 2024).

⁴ *Increased number of prisoners in Europe*. Available at: https://bizlife.rs/povecan-broj-zatvorenika-u-evropi/ (Accessed: 13 February 2024).

for their re-education and reintegration into normal life. One such organization, the World Prison Brief, serves as a unique database, providing detailed and updated information on correctional facilities, their population, and incarceration rates.

The data in Table 1 show key statistics about the prison system in four countries, including the total number of prisoners, incarceration rate, prison capacity, and the percentage of overcrowding, highlighting the conditions and challenges faced by prisons in Thailand, Turkey, Brazil, and Peru.⁵

Table 1Prison Population Trends Worldwide from 2020 to 2024

Country	Total Number of Prisoners	Incarceration Rate	Prison Capacity	Overcrowding Percentage
Thailand	274.277	391	238.250	15,1%
Turkey	314.375	366	289.974	17,8%
Brazil	839.672	390	482.875	73,9%
Peru	94.502	277	41.019	130,4%

Prison Population in the Republic of Serbia

The trend of prison overcrowding, in addition to the sharp increase at the global level, has also affected the Republic of Serbia. Starting in 2003, the number of prisoners serving their sentences has increased by 1.000 each year.⁶ Statistical data show that the number of convicted individuals and detainees in our country has more than tripled over the past twenty years. Specifically, the number increased from 3.600 at the beginning of the 1990s to 6.000 individuals deprived of their liberty in

⁵ World Prison Brief data. Available at: https://www.prisonstudies.org/world-prison-brief-data (Accessed: 17 April 2024).

⁶ *Prisons are as full as beehives*. Available at: http://www.politika.rs/scc/clanak/74307/Zatvori-puni-kao-kosnice (Accessed: 22 June 2021).

the year 2000. In 2004, the number rose to 7.800, and by 2012, there were as many as 11.300 convicted individuals.⁷

The Strategy for Reducing Overcrowding in the Correctional Facilities in the Republic of Serbia until 2020⁸ (hereinafter referred to as the Strategy until 2020) states that in 2012, the situation regarding accommodation capacities revealed that the biggest problem of overcrowding was in the closed departments of correctional facilities, where convicted individuals serving prison sentences of over one year were housed, particularly those sentenced to prison terms ranging from one to ten years. The number of individuals deprived of their liberty was reduced by the Amnesty Law⁹, so that on December 31, 2012, there were 10.228 people in the facilities, which still reflected the problem of prison overcrowding.

At the end of January 2020, Serbia recorded a prison population of 11.077, which represents an increase compared to 2019, when there were 10.871 prisoners. Of the total number, 16,5% of prisoners were serving sentences of less than one year, 26,6% were serving sentences from one to three years, 23% from three to five years, and 19% from five to ten years. In Serbian prisons, 24,4% of prisoners were incarcerated for drug-related offenses, 25,4% for theft, and 10,2% for murder. The average cost per prisoner was 26,3 euros.¹⁰

It is important to highlight the situation that changed everything, including life in prisons, under the name of Covid-19. Available data support the fact that Serbia was among the 20 European countries that released prisoners due to the pandemic in 2020. In the first month alone, 626 prisoners were released. On April 15, there were 105,6 prisoners per 100 available places in Serbian prisons, showing an improvement compared to January 1, when there were 107 prisoners per 100 places.¹¹

As can be seen from the data presented in Table 2, the trend of the prison population in the Republic of Serbia in 2020 reached an incarceration rate of as much as 152. In comparison, the most recent data available for January 2023 shows a total prison population of 10.787, with an incarceration rate of 162. The prison capacity was 11.957, resulting in an occupancy rate of 90,2%. This indicates the implemen-

⁷ Strategy for the Development of the Criminal Sanctions Execution System in the Republic of Serbia until 2020, Official Gazette of the Republic of Serbia, No. 114/2013.

⁸ Strategy for Reducing the Overcrowding of Accommodation Capacities in Penitentiaries in the Republic of Serbia until 2020, Official Gazette of the Republic of Serbia, No. 43/2017.

⁹ Law on Amnesty, Official Gazette of the Republic of Serbia, No. 117/12.

¹⁰ *In Serbia, there are still more prisoners than spaces in prisons.* Available at: https://euractiv.rs/2-srbija-i-eu/102-vesti/16069-u-srbiji-u-zatvorima-i-dalje-vie-zatvorenika-nego-mesta Accessed: 22 June 2021).

¹¹ Serbia is among the 20 European countries that released prisoners due to the pandemic. Available at: https://euractiv.rs/10-ljudska-prava/179-vesti/15086-srbija-meu-20-evropskih-zemalja-koje-su-oslobaale-zatvorenike-zbog-pandemije (Accessed: 22June 2021).

tation of the guidelines aimed at reducing overcrowding in correctional facilities, as proposed in the adopted strategies (World Prison Brief data).

Table 2Trend of the Prison Population in Serbia for the Period from 2012 to 2023

Year	Total Number of Prisoners	Incarceration Rate
2012.	10.226	142
2014.	10.288	145
2016.	10.672	151
2018.	10.852	156
2020.	10.543	152
2023.	10.787	162

Causes of Prison Overcrowding

Statistical data on the number of prisoners in correctional facilities indicate that the cause of this problem cannot be attributed to a single factor. On the contrary, it is a combination of several key aspects in penal policy that need to be addressed in an appropriate manner. Therefore, numerous criminologists have been trying for decades to explain what led to the trend of overcrowding, with a primary focus on the combination of socio-economic reasons (economic crisis), increased crime rates, solutions in criminal law, strict penal policies of the courts, the abolition of the death penalty, and the inefficiency of the prison system (Ignjatović, 2018, p. 186).

Considering the complexity of the situation in prisons worldwide and in our country, given that there are numerous causes of overcrowding, the following section will explain three significant causes that lead to prison overcrowding and result in a series of consequences, which will also be discussed in this paper. Therefore, the first major cause of this trend is the imposition of short prison sentences, followed by the favoring of pre-trial detention as a measure to ensure the presence of the accused, and finally, the contribution and influence of public opinion, which has led to an increasing trend of incarcerating potential offenders.

Short Prison Sentences

Short or brief prison sentences are often the subject of criticism from many researchers due to their negative impact on individuals sent to correctional facilities. Is it even worth imprisoning individuals sentenced to short sentences if there is a risk of numerous social consequences?

Short prison sentences are understood to refer to sentences up to six months, and at most up to one year. If the primary goal of punishment is the re-educational treatment of sentenced individuals, it is noted that this could not be successfully achieved due to the insufficient time available to even start, let alone implement such treatment. This approach to dealing with prisoners sentenced to short prison sentences has led to negative consequences, primarily the loss of employment, separation from family, stigmatization by the community in which they live, and the loss of social status. As an alternative to these consequences, non-custodial measures are suggested. Over the past two decades, there has been a noticeable trend towards reaffirming short prison sentences. Researchers have proposed that, when offenders cannot be rehabilitated, imposing short prison sentences may serve as a brief but serious shock or a stress warning if they are involved in criminal activities again (Lazarević, 1974 according to Ignjatović, 2018, p. 184).

In addition to sentences up to six months, sentences from six months to two years are also very common, directly contributing to prison overcrowding. The Strategy for Reducing Overcrowding in Correctional Facilities in the Republic of Serbia for the period from 2010 to 2015 (hereinafter referred to as the Strategy 2010-2015) highlights that, between 2005 and 2009, short sentences of up to six months were imposed in 41,6% of cases. Between 2011 and 2015, short prison sentences occupied a significant place in the overall structure of imposed criminal sanctions, especially sentences lasting six months to one year, which were imposed 3.184 times in 2014. There was also a notable portion of sentences from three to six months, imposed 3.772 times in the same year (Jovanić, 2016, p. 15). In 2016, the largest number of individuals were sentenced to prison for three to six months (2.269 individuals), followed by those sentenced to six months to one year (2.423 individuals) (Mrvić-Petrović, 2007 according to Tanjević, 2019).

According to the available data from the Strategy for the Development of the Criminal Sanctions Execution System for the Period 2022-2027¹³, which pertains to the representation of prison sentences in 2020, it was observed that the share of short sentences significantly decreased. Prison sentences of up to three months account for

¹² Strategy for Reducing the Overcrowding of Accommodation Capacities in Penitentiaries in the Republic of Serbia for the Period from 2010 to 2015, Official Gazette of the Republic of Serbia, No. 53/2010.

¹³ Strategy for the Development of the Criminal Sanctions Execution System for the Period 2022-2027, Official Gazette of the Republic of Serbia, No. 142/2022.

1,75%, sentences of three to six months for 3,74%, sentences of six months to one year for 6,81%, sentences of one to two years for 12,18%, and sentences of two to three years account for 14,3%.

According to the Republic Statistical Institute data for 2020¹⁴, 2.130 individuals were sentenced to prison for up to six months, and 2.699 individuals were sentenced to prison for six months to two years. The following year, in 2021, the Republic Statistical Institute reported that 2.114 individuals were sentenced to prison for up to six months, and 2.777 individuals were sentenced to prison for six months to two years.¹⁵

The most recent statistical data on the share of short-term prison sentences in the overall structure of criminal sanctions in the Republic of Serbia for 2022 indicate that they are quite prevalent. Specifically, 2.567 individuals were sentenced to prison terms of up to six months, while 3.080 individuals were sentenced to prison terms of six months to two years. ¹⁶

Pretrial Detention

Another significant cause of overcrowding in prisons is pretrial detention, which serves as a measure to ensure the presence of the accused during criminal proceedings. This seems to be one of the primary causes of overcrowding, considering the numerous statistical records available on the topic. Pretrial detention is the most severe measure used to secure the presence of the accused and successfully conduct the criminal procedure. It involves the preventive deprivation of liberty, meaning a coercive measure aimed at ensuring the accused's presence in the court, rather than a punitive action. It ensures the physical presence of the accused and prevents them from either completing a crime or committing a new one (Banović, Bejatović, 2019, p. 175).

Pretrial detention can only be imposed under conditions specified by the Criminal Procedure Code (ZKP)¹⁷ and only if no other measures can achieve the same purpose. According to the ZKP, pretrial detention can be ordered if there is reasonable suspicion that the individual has committed a criminal offense, and if certain legal grounds are met. It is the duty of all organs involved in the criminal procedure and those providing legal assistance to ensure that the duration of the pretrial de-

¹⁴ Republic Statistical Office (2021) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2021/PdfE/G20212054.pdf (Accessed: 22 September 2021).

¹⁵ Republic Statistical Office (2022) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2022/PdfE/G20222055.pdf (Accessed: 22 September 2021).

¹⁶ Republic Statistical Office (2023) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2023/Pdf/G20232056.pdf (Accessed: 23 September 2021).

¹⁷ Criminal Procedure Code, Official Gazette of the Republic of Serbia, No. 72/2011, 101/2011, 121/2012, 32/2013, 45/2013, 55/2014, 35/2019, 27/2021 - decision of the Constitutional Court, and 62/2021 - decision of the Constitutional Court.

tention is limited to the shortest possible time and to proceed with urgency if the accused is in pretrial detention.

In practice, some convicted individuals spend several years in pretrial detention before their sentence is handed down. Therefore, it is important to highlight the factors that influence the length of pretrial detention. The first factor is the speed with which the investigation is carried out. The second is the capacity of the system to transport the accused from prisons to courts. The third is the availability of legal counsel and defense rights for detainees. The fourth factor is the number of cases and the resources available to conduct trials. Finally, in some cases, there may be an interest by detained individuals to delay the trial process (KING'S College London International Centre for Prison Studies, 2004).

The greatest responsibility for the increase in the number of convicts lies with the police and the prosecution, as the police are the first to arrest suspects who, through the actions of the prosecution, end up in detention. In many cases, prosecutors believe that they can more easily obtain evidence if the accused is in detention before the trial and may also hope to extract a confession of guilt from the accused. In this way, the accused, under significant pressure due to the harsh conditions in overcrowded detention units, admit to committing the crime to transition to a better environment after a final verdict. Additionally, apart from the prosecution, the courts play a significant role in the overcrowding of prisons due to delays in criminal proceedings. There is an inertia in the courts, as they do not pay attention during the criminal process to the reasons for imposing detention (Ilić, 2011b; KING'S College London International Centre for Prison Studies, 2004).

The World Prison Brief organization presents data, shown in Table 3, indicating the population of detainees from 2019-2022. When compared to the data on prison overcrowding for the same period, we can observe an increase in detainees, with the highest number in 2022 when 2.930 individuals were detained. According to the most recent data from 2023, 2.205 individuals made up the detention units.

Table 3 *Trend of Detainees in Serbia from 2019-2023*

Year	Numerosity	Percentage	Rate
2019.	1.903	17,2%	27
2020.	1.959	18,6%	29
2022.	2.930	27,8%	43
2023.	2.205	20,4%	33

The Impact of Public Opinion on the Problem of Prison Overcrowding

In recent years, two completely opposite tendencies have emerged regarding prison overcrowding. The first tendency relates to the highly repressive stance of public opinion, which advocates for a harsher response to crime through tightening penal policies by lawmakers and courts. This has resulted in an increasing reliance on imprisonment as the harshest sanction and the overcrowding of prisons. On the other hand, the prevailing view reflects the need to replace prison sentences with alternative sanctions. Đorđević (2015) concludes that public opinion is not fully aligned, but all signs indicate that society, or at least a large majority, supports a more repressive approach to policy.

The question arises whether the public is even aware of life in prison, given that a large number of people have never had the opportunity to visit a prison. The current situation involves the expression of public opinions through the media, which often leads to the creation of a distorted image of prisons, along with numerous prejudices, stereotypes, and misconceptions. In addition to harsh opinions, there is a significant lack of public interest in the problems faced by the population in correctional facilities, with some suggesting that inmates have received what they deserved. On the other hand, there are those who pressure the courts to impose prison sentences more frequently. If the public does become interested in a particular case, pressure increases on the courts to resolve it in a socially acceptable manner, often leading to the delivery of compromise verdicts that are not supported by solid evidence (Mrvić-Petrović, 2007, according to Ilić, 2011b).

According to the famous statesman Winston Churchill, "The mood and disposition of the public when it comes to their attitude towards crime and criminals represent one of the infallible tests of the civilization of a country". The issue of the rights of individuals deprived of their liberty in our country triggers very negative reactions from society, especially in relation to innocent victims of criminal offenses and those who have committed these offenses. Preoccupied with their own concerns and needs, citizens have little understanding for the maintenance of penal institutions, or for redirecting funds from the state budget towards the construction and upkeep of prisons. There is also widespread ignorance, leading citizens to believe that the state should not care about the situation of those serving criminal sanctions because they are deemed undesirable. This perspective contributes to the view that the purpose of criminal sanctions is to seek vengeance against the perpetrator of the crime, that rights to healthcare, social contacts, education, and care are seen as special privileges that do not belong to these individuals, rather than understanding that these rights are guaranteed to every person as fundamental human rights (Tanjević, 2019, p. 149).

Ways to Solve the Problem of Overcrowding

Numerous researchers propose methods for addressing this issue based on the causes of the present phenomenon and a comprehensive consideration of the possibilities that could prevent further worsening of the situation.

Since prisoners differ in status, being either definitively convicted or individuals against whom a criminal proceeding is still ongoing, this fact must be considered when considering solutions to reduce prison overcrowding (Ilić, 2011a, p. 92).

Below, we will present several possibilities for solving the problem of prison overcrowding, including the application of alternative sanctions, measures, and other potential solutions.

Application of Alternative Sanctions and Measures

The insufficient application of alternative criminal sanctions in the 20th century, combined with numerous issues within the prison system and the obligation to align with European Union regulations, has compelled countries to begin implementing alternative sanctions. Despite the existence of normative sanctions such as community service, suspended sentences, revocation of driving licenses, and house arrest, their application has not been successful. These measures, although legally established, remained ineffective in practice, rendering them mere "words on paper". This situation led certain researchers to conclude that the media's portrayal of crime, public opinion about prisoners, sensationalized representations of serious criminal offenses and offenders, and growing public demands for the reinstatement of the death penalty could not form a basis for the development of alternative criminal sanctions (Jovanić, 2016, pp. 10-11).

Contemporary approaches to reducing prison overcrowding focus on two main directions: first, reducing the intake of individuals into prison through the application of alternative sanctions and measures, and second, shortening the length of time spent in prison through early release programs. It can be concluded that the penal policy of the courts represents a significant part of crime policy, and it should not be assumed that, within this framework, it is impossible to reduce the use of prison sentences by more adequately implementing existing sanctions. Even despite the overcrowding problem, the greater application of alternative sanctions has been requested for a long time (Ignjatović, 2012; Soković, 2013; according to Đorđević, 2015, p. 80).

Data indicates that with the rise in the number of prisoners in 2019, and the incarceration rate of 159,9 compared to the European average of 103,2, along with a large proportion of detainees among those deprived of their liberty and short-term prison sentences accounting for as much as 38,78% of all prison sentences in 2020,

there is a favorable environment for the development of alternative sanctions in the Republic of Serbia. From 2015 to 2020, the use of alternative sanctions accounted for 16,5% of the total number of criminal sanctions imposed annually, which represents an improvement compared to their 9,7% representation in 2016 (Kolaković-Bojović, Batrićević, Matić-Bošković, 2022, p. 5).

Short prison sentences, as a primary cause of prison overcrowding, have long been subject to the idea of being replaced with more appropriate criminal sanctions. Although there has been a significant decrease in the proportion of short prison sentences of up to three years (from 46,84% to 38,78%), as well as sentences of up to one year (from 19,1% in 2014 to 12,3% in 2020) (Kolaković-Bojović, Batrićević, Matić-Bošković, 2022, p. 18), among alternative sanctions, the most commonly mentioned are community service, restitution and compensation for damages, variations of house arrest, and weekend imprisonment.

The possibility of serving a prison sentence in the convict's place of residence was introduced in 2009 as a variation of house arrest. This was implemented due to the weak impact of short prison sentences and the limited capacity of prison systems, as well as the potential for cost reduction. Despite technical challenges, this alternative sanction has found its application in practice (Đorđević, 2015, p. 82). Data supporting this indicates that, at the beginning of its implementation, in 2011, 70 cases were executed, and by 2012, this number had increased to 528. This shows a rise in its use compared to community service, which was implemented 365 times that year, and the revocation of driving licenses, which occurred only five times. In 2016¹⁹, house arrest was imposed in 1.858 cases, compared to community service and revocation of driving licenses, which were imposed 331 and five times, respectively. The year 2021²⁰ saw a further increase in house arrest executions, with 2.757 cases, while community service and revocation of driving licenses were imposed in 162 cases. In 2022²¹, house arrest was imposed 2.934 times, while community service and revocation of driving licenses were imposed in 169 times. In 2023²², out of all sanctions imposed, house arrest

¹⁸ Report on the Work of the Administration for the Execution of Criminal Sanctions for the Years 2011 and 2012. Available at: http://www.uiks.mpravde.gov.rs/images/Godisnji_2011_%20UIKS.pdf, http://www.uiks.mpravde.gov.rs/images/UKKS_izvestaj_2012.pdf (Accessed: 31 August 2021).

¹⁹ Republic Statistical Office. (2017) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2017/Pdf/G20172022.pdf (Accessed: 30 September 2024).

²⁰ Republic Statistical Office. (2022) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2022/PdfE/G20222055.pdf (Accessed: 22 September 2024).

²¹ Republic Statistical Office (2023) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2023/Pdf/G20232056.pdf (Accessed: 23 September 2024).

²² Republic Statistical Office (2024) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2024/Pdf/G20242057.pdf, (Accessed: 3 February 2025).

was ordered in 3.171 cases, showing a slight decline in the number of community service sentences and revocations of driving licenses, which were imposed in 158 cases.

Analyzing the Strategy for the Development of the Criminal Sanctions Enforcement System for the period 2022-2027 and the representation of alternatives to imprisonment from 2015 to 2020, it is evident that the most prevalent alternative is house arrest with electronic monitoring (35%), followed by house arrest without electronic monitoring (32%), community service (14%), house arrest with electronic monitoring (11%), and house arrest without electronic monitoring (8%).

A significant role in the fight to reduce the prison population is played by fines, which are not as commonly used in Serbia despite the considerable advantages they offer. Data shows that during the period of the former Socialist Federal Republic of Yugoslavia (SFRJ), fines had a far-reaching impact, accounting for as much as 45% of all criminal sanctions imposed. However, due to high inflation rates, this percentage began to decline in the following years, reaching 10% by 1994. It was only during the period from 2000 to 2005 that progress was made, and the use of fines reached 20%. However, changes were made to this system, which required that the imposed fine reflect the financial situation and personality of the offender to serve its intended purpose. These adjusted fines were meant to replace short prison sentences and suspended sentences. Still, courts agreed that the daily system of fines created numerous problems and delayed the proceedings (Đorđević, 2015: 84-85). In recent years, there has been a slight increase in the imposition of monetary sanctions, according to available statistical data from the Republic Statistical Office of the Republic of Serbia for the period from 2018 to 2022.²³

Table 4Number of Criminal fines Imposed in Serbia from 2018 to 2022

	2018.	2019.	2020.	2021.	2022.
Criminal Sanctions	29.750	28.112	25.487	27.208	26.200
Criminal fine	2.628 (8,83%)	2.581 (9,18%)	2.683 (10,5%)	3.432 (12,61%)	3.727 (14,23%)

²³ Republic Statistical Office (2019) *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2019/PdfE/G20192052.pdf; Republic Statistical Office. (2020). *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2020/Pdf/G20202053.pdf (Accessed: 23 September 2024).

In addition to the noticeable development of the trend of applying fines as an alternative to imprisonment, the imposition of conditional sentences holds a special place in the hierarchy of alternatives to imprisonment. The Republic Statistical Office, in its statistical yearbooks for the period from 2018 to 2022, highlighted the share of conditional sentences in the structure of criminal sanctions. Based on the data presented in Table 5, it can be concluded that the application of conditional sentences in 2022 was 18% lower compared to 2021.

Table 5Number of Conditional Sentences Imposed in Serbia from 2018 to 2022

	2018.	2019.	2020.	2021.	2022.
Criminal Sanctions	29.750	28.112	25.487	27.208	26.200
Conditional Sentence	16.880 (56,7%)	16.903 (60,1%)	14.179 (55,6%)	14.488 (53,2%)	11.913 (45,5%)

After highlighting the development of the application of alternatives to imprisonment in Serbia, it is important to emphasize that, despite their lower representation, the execution of these alternatives reduces social stigmatization, effectively facilitates the reintegration of offenders into society, and creates conditions for mitigating the harm caused to the victim. Additionally, their execution contributes to financial savings and relieves the state budget, as the daily cost per offender is 15 times lower compared to imprisonment (Koki, Kovčo, 2006; Manojlović, Stefanović, 2012, according to Jovanić, 2016, p. 18).

Conditional Release

In addition to alternative sanctions, the reduction of the prison population can also be achieved through conditional release as a legal institution, which is not aimed at solving the problem of overcrowded prisons but can sometimes serve as a means of reducing the prison population (Škulić, 2016, p. 363).

According to Article 46 of the Criminal Code²⁴, a convicted person who has served two-thirds of their prison sentence may be conditionally released from serving their sentence, if during their imprisonment they have improved to the extent that it can

²⁴ *Criminal Code*, Official Gazette of the Republic of Serbia, No. 85/2005, 88/2005 - corr., 107/2005 - corr., 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, and 35/2019.

reasonably be expected they will behave well in society, particularly not committing any new criminal acts before the expiration of their sentence. A convicted person cannot be conditionally released if, during their sentence, they have been punished twice for serious disciplinary offenses and have had their granted privileges revoked.

According to the data provided in the Strategy until 2020, between 2012 and 2015, there was an increase in the number of individuals conditionally released from serving prison sentences. In 2012, conditional release was applied in 600 cases, representing 8,14% of all persons released from prison that year. In 2013, 1.082 individuals were conditionally released, or 16,25% of all persons released from prison; in 2014, 1.230 individuals (20,6%); and in 2015, 1.581 individuals, or 26,4% of all persons released from serving their sentences.

The research conducted in 2015 in the correctional facilities in Sremska Mitrovica, Niš, and Požarevac aimed to examine the application of the conditional release institute in the period from 2011 to 2015. The results indicated that during this period, a total of 11.349 petitions for conditional release were submitted, with 1.583 approved, or 13,95%. In 2015, out of a total of 2.108 petitions, 495 individuals (23,5%) were conditionally released (Vujičić, Stevanović, Ilijić, 2017).

Data is also available for the period from 2018 to 2020, showing an imbalance in the application of conditional release by the courts. In 2018, 1.445 convicts were conditionally released, in 2019, 1.289 individuals were conditionally released, while in 2020, the number of individuals conditionally released was 1.304.²⁵

Soković (2016) suggests balancing the practice of conditional release by explaining that there are expectations regarding conditional release in terms of the rehabilitation and reintegration of convicts and the reduction of overcrowding in prison capacities. These expectations can only be achieved through the existence of a coherent criminal sanctions execution system, where conditional release is a proportionally represented segment. Otherwise, reducing the prison population through conditional release may only yield superficial results.

Expansion of Prison Capacity

Prison overcrowding brings with it inadequate accommodation conditions, prevents activities outside the cell, increases the level of violence between prisoners, and hinders the provision of rehabilitation treatment aimed at their successful reintegration (Tanjević, 2019, p. 156).

²⁵ Approximately 1,200 prisoners in Serbia are released on parole every year. Available at https://www.danas.rs/vesti/drustvo/oko-1-200-osudjenika-godisnje-na-uslovnoj-slobodi/ (Accessed: 23 September 2024).

The lack of privacy, failure to comply with standards regarding space per inmate, poor hygiene conditions, inadequate isolation, and temperature issues are just some of the problems that describe the state of prison facilities and can negatively impact the resocialization of prisoners (Ilijić, 2016). Most penal institutions are characterized by poor architecture and inappropriate locations, and the problem of prison overcrowding further worsens the living conditions of prisoners, which affects security and safety within these institutions. Additionally, difficulties related to food, access to fresh water, providing clean bedding, and adequate clothing further emphasize the need to expand prison capacities to improve living conditions and safety in penitentiary institutions (Ignjatović, 2018, pp. 756-757).

Given the numerous consequences of overcrowding, it is essential, in addition to the development of alternative sanctions, to invest efforts in other activities that would contribute to solving the problem of prison overcrowding, particularly the expansion of prison capacities.

Past investments have significantly contributed to solving the issue of overcrowding in prisons. The Strategy until 2020 mentions that a new closed-type facility with special security was built in Belgrade to accommodate a total of 450 convicted individuals, which started in 2012. Between 2013 and 2015, four blocks in the Belgrade District Prison and three blocks in the Special Prison Hospital were renovated. Additionally, new capacities of 180 places were provided in the Penal-Correctional Facility in Belgrade (Padinska Skela), 50 places in the District Prison in Subotica, and 180 places for minors in the Juvenile Correctional Facility in Kruševac. The Juvenile Penal-Correctional Facility in Valjevo was reconstructed, as were certain buildings in the Penal-Correctional Facilities in Niš, Požarevac (Zabela), and Sremska Mitrovica, as well as the District Prisons in Leskovac, Subotica, Kraljevo, Novi Pazar, Negotin, and Smederevo.

The mentioned strategy highlighted significant actions taken by the end of 2020 that would improve accommodation conditions and increase capacity in closed sections of penal institutions. These activities included the reconstruction of accommodation facilities and the construction of a new pavilion in the Penal-Correctional Facility for Women in Požarevac, the construction of a new prison complex in Pančevo to accommodate 500 convicted individuals and in Kragujevac for 400 individuals, as well as the construction of a new reception building in the Penal-Correctional Facility in Niš. The reconstruction of accommodation capacities in the Belgrade District Prison, the Special Prison Hospital in Belgrade, and the construction and reconstruction of accommodation capacities in the Penal-Correctional Facility in Požarevac (Zabela), in Sremska Mitrovica, and a new building in the District Prison in Leskovac were also completed.

Considering the significant points highlighted in the Strategy until 2020, which relate to the reconstruction and construction of new facilities, it is necessary to emphasize the notable results achieved in expanding prison capacities. Investments in correctional institutions have enabled the accommodation of 11.451 inmates, ensuring space in 29 correctional facilities.

If we start from the most recent investments, the Strategy for the Development of the Criminal Sanctions Enforcement System for the Period 2022-2027 mentions that in 2020, a new pavilion was built in the Leskovac District Prison to accommodate 200 convicted individuals. In 2019, the construction of a new facility for housing female inmates was completed in the Penal-Correctional Facility for Women in Požarevac, with a capacity of 165 places in the semi-open and open sections of the facility. In 2017, the Penal-Correctional Facility in Sremska Mitrovica completed the renovation of the accommodation facility for sick individuals, as well as the construction of a new pavilion for housing 320 inmates. In the Penal-Correctional Facility in Požarevac-Zabela, the reconstruction of the facility for individuals with disabilities was completed in 2015, and in 2018, a block for housing convicted individuals was renovated. In 2019, the construction of a new pavilion for housing 216 inmates was also completed, and it is mentioned that by 2021, the construction of two pavilions with a total capacity of 440 places was expected to begin.

Application of the Principle of Opportunity

In addition to the application of alternative criminal sanctions and the improvement of prison accommodation capacities and conditions characterizing prison systems, there is an opinion that the widespread application of the principle of opportunity would contribute to overcoming the problem of overcrowding in prisons.

Article 283 of the Criminal Procedure Code regulates the postponement of criminal prosecution, stipulating that the public prosecutor may postpone criminal prosecution for criminal offenses punishable by a fine or a prison sentence of up to five years if the suspect accepts one or more of the following obligations: to eliminate the harmful consequences caused by the commission of the criminal offense or to compensate for the damage caused; to pay a certain monetary amount into the account designated for public revenue, which is used for humanitarian or other public purposes; to perform certain socially useful or humanitarian work; to fulfill overdue maintenance obligations; to undergo treatment for alcohol or drug addiction; to undergo psychosocial treatment to eliminate the causes of violent behavior; and to fulfill an obligation established by a final court decision or to comply with a restriction determined by a final court decision. The public prosecutor will specify the deadline in the order for postponing the

criminal prosecution, with the condition that the deadline cannot exceed one year. If the suspect fulfills the obligation within the deadline, the public prosecutor will dismiss the criminal report by a decision and notify the injured party about it.

Data from 2013 indicate that the institution of postponing criminal prosecution was implemented in 2.024 cases. It was concluded that in most criminal offenses, the application of the principle of opportunity occurred in a small number of cases. An example is the criminal offense of serious bodily injury, where attempts were made to apply this principle to 40 suspects, but it was successfully applied only to 7 (17,5%). For the criminal offense of minor bodily injury, the application of opportunity was even weaker, at only 12,39%. The principle was applied in 22,78% of cases for the criminal offense of endangerment with dangerous weapons, 14,69% for endangerment of safety, 30,79% for domestic violence, 17,09% for theft, 18,26% for fraud, 29,22% for the unauthorized possession of narcotic drugs, and 10,19% for violent behavior. These criminal offenses typically carry prison sentences, so the weak application of the principle of opportunity results in frequent criminal proceedings for these offenses and further overcrowding of the prison system in Serbia. A rare example of successful application of this principle is the criminal offense of endangering public traffic, where the principle was applied in 57,47% of cases, and the criminal offense of falsification of official documents, where the application of the principle was the highest so far, at 90% of cases (Dimovski, Kostić, 2016, pp. 169-170).

Analyzing the principle of opportunity, i.e., the cases with dismissed criminal charges from 2014 to 2018, it is evident that the number of dismissed charges was recorded for 17.779 individuals in 2014, 21.400 in 2015, 20.290 in 2016, 16.957 in 2017, and 18.251 individuals in 2018 (PREVENT, 2019).

The application of the principle of opportunity, or postponing criminal prosecution, serves its purpose by providing special obligations that condition the delay in prosecution. This way, the suspect does not engage in the criminal process, which allows for relief not only of the judicial system but also of the penal institutions. Despite highlighting this opportunity, the application of the principle has declined due to the decrease in the number of criminal cases during 2020, caused by the COVID-19 pandemic. The lack of statistical data indicating the trend of the use of the postponement system, and the importance of its application, shows that there is some inconsistency in the special obligations required for postponement, as 83,2% of the measures involve payment of money for humanitarian purposes, 9,8% involve eliminating harmful consequences, 4,1% involve performing socially useful work, 2,2% involve fulfilling overdue maintenance obligations, 0,3% involve undergoing addiction treatment for alcohol or drugs, and 0,2% involve undergoing psychosocial treatment to eliminate

the causes of violent behavior. Some observed problems in implementing these special measures include unclear delineation of responsibilities between public prosecutors and trustees, as well as the inability to clearly control the implementation of measures concerning the abstinence from alcohol and drugs. Therefore, it is emphasized that it is necessary to regulate the normative framework governing the institute of opportunity (Kolaković-Bojović, Batrićević, Matić-Bošković, 2022, pp. 29-30).

Conclusion

Based on the achievements so far in addressing prison overcrowding, it can be concluded that the efforts invested are not sufficient, although some changes are evident. It is essential, as recommended, to focus on possible measures that would contribute to alleviating prison capacities, thus improving the position of convicted individuals in correctional facilities.

Constant sentencing to prison may lead not only to overcrowding of the prison system but also to more serious problems, such as the deterioration of prisoners' mental health, a decrease in their ability to reintegrate into society, and an increase in recidivism rates. Although prison sentences are necessary for serious crimes, they do not represent the only way to combat crime. Therefore, it is important to focus on alternative sanctions that, if properly implemented, would most contribute to reducing the prison population.

The contribution of alternative sanctions in Serbia is currently relative, meaning that their impact has not yet fully realized its potential, as it depends on factors such as the level of implementation and support from relevant authorities. However, a slight increase in their imposition can be observed, indicating the possibility of reducing the number of incarcerated individuals if the relevant authorities focused more on the development and implementation of a different penal policy.

In addition to prison sentences, the growing number of detainees also contributes to the burden on accommodation capacities, as the data in this paper suggests that the excessive imposition of detention, as a measure to ensure the defendant's presence, contributes to the worsening of this problem. There is also a negative impact from the public, whose views on the prison population contribute to greater stigmatization of convicted individuals, leading to their return behind bars.

Reducing overcrowding in correctional facilities requires a comprehensive approach through efforts to stabilize the current situation by reforming the judicial system, increasing the use of alternative criminal sanctions, and improving conditions in prisons. Every problem can be solved if approached in the right way.

LITERATURE

- Banović, B., Bejatović, S. (2019) *Krivično procesno pravo*. Beograd: Univerzitet u Beogradu-Fakultet bezbednosti.
- Dimovski, D., Kostić, M. (2015) 'Penološki pristup prevelikom broju osuđenih lica u penintencijarnom sistemu Republike Srbije'. *Nauka, bezbednost, policija*, 20(2), 166-178. DOI: 10.5937/NBP1502166D
- Đorđević, Đ. (2015) 'Preopterećenost zatvorskih kapaciteta i moguća rešenja ovog problema'. *Revija za kriminologiju i krivično pravo*, 53(2-3), 75-91.
- Grujić, Z., Milić, I. (2016) 'Prison Overcrowding- mitigating the concequences', in: Kolarić, D. (ed.) "*Dani Arčibalda Rajsa "ARCHIBALD REISS DAYS*" Beograd: Kriminalističko-policijska akademija, 286-295.
- Ignjatović, Đ. (2018) Kriminologija. Beograd: Univerzitet u Beogradu-Pravni fakultet.
- Ilić, A. (2011a) 'Mogući načini rešavanja problema prenaseljenosti zatvora u Republici Srbiji', in: Kron, L. (ed.) *Zbornik Instituta za kriminološka i sociološka istraživanja*. Beograd: Institut za kriminološka i sociološka istraživanja, 91-108.
- Ilić, A. (2011b) 'Prenaseljenost zatvora- fenomenološki i etiološki pristup'. *CRIMEN*, *2*(2), 245-256.
- Ilijić, Lj. (2015) `Zatvorska kazna i resocijalizacija-faktori ne/uspješnosti`, in: Hugson, M., and Stevanović, Z. (eds.), *Kriminal i društvo Srbije– izazovi društvene dezintegracije, društvene regulacije i očuvanja društvene sredine*. Beograd: Institut za kriminološka i sociološka istraživanja, 303-316.
- Jovanić, G. (2016) `Alternativne sankcije u neonatalnom inkubatoru`, in: Jovanić, G (ed.) *Zbornik Probacija i alternativne krivične sankcije- mogućnosti i perspektive*. Banja Luka: Centar modernih znanja Banja Luka, 8-23.
- Kolaković-Bojović, M., Batrićević, A., and Matić-Bošković, M. (2021) Analiza uticaja primene alternativnih sankcija i mera u Republici Srbiji u periodu od 2015. do 2020. godine. Misija OEBS-a u Srbiji. Institut za kriminološka i sociološka istraživanja.
- Skakavac, Z., and Trajković, N. (2019) 'Ustanove za izvršenje krivičnih sankcija- svetska i domaća iskustva'. *Civitas*, 9(2), 72-100. https://doi.org/10.5937/civitas1902072s
- Soković, S. (2016) Uslovni otpust-Penološki aspekt. *Međunarodni naučni tematski skup- "KRIVIČNE I PREKRŠAJNE SANKCIJE I MERE: izricanje, izvršenje i uslovni otpust*" (387-400). Beograd: Institut za kriminološka i sociološka istraživanja.

- Škulić, M. (2016) Uslovni otpust sa stanovišta krivičnog materijalnog i krivičnog procesnog prava. *Međunarodni naučni tematski skup- "KRIVIČNE I PREKRŠA-JNE SANKCIJE I MERE: izricanje, izvršenje i uslovni otpust*" (363-385). Beograd: Institut za kriminološka i sociološka istraživanja.
- Tanjević, N. (2019) 'Uslovi boravka u ustanovama za izvršenje zatvorskih sankcija i prava lica lišenih slobode'. *Bezbednost*, *61*(1), 148-171.
- Vujičić, N., Stevanović, Z., and Ilijić, Lj. (2017) *Primena instituta uslovnog otpusta od strane sudova u Republici Srbiji: ekspertska analiza*. Institut za kriminološka i sociološka istraživanja, Beograd.

SOURCES OF LAW

- *Criminal Code*, Official Gazette of the Republic of Serbia, No. 85/2005, 88/2005 corr., 107/2005 corr., 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, and 35/2019.
- Strategy for the Development of the Criminal Sanctions Execution System in the Republic of Serbia until 2020, Official Gazette of the Republic of Serbia, No. 114/2013.
- Strategy for the Development of the Criminal Sanctions Execution System for the Period 2022-2027, Official Gazette of the Republic of Serbia, No. 142/2022.
- ("Strategy for Reducing the Overcrowding of Accommodation Capacities in Penitentiaries in the Republic of Serbia for the Period 2010-2015, Official Gazette of the Republic of Serbia, No. 53/2010.
- Strategy for Reducing the Overcrowding of Accommodation Capacities in Penitentiaries in the Republic of Serbia until 2020, Official Gazette of the Republic of Serbia", No. 43/2017.
- Law on Amnesty, Official Gazette of the Republic of Serbia, No. 117/12).
- *Criminal Procedure Code*, Official Gazette of the Republic of Serbia, Nos. 72/2011, 101/2011, 121/2012, 32/2013, 45/2013, 55/2014, 35/2019, 27/2021 decision of the Constitutional Court, and 62/2021 decision of the Constitutional Court.

INTERNET SOURCES

Approximately 1,200 prisoners in Serbia are released on parole every year. Available at: https://www.danas.rs/vesti/drustvo/oko-1-200-osudjenika-godisnje-na-uslov-noj-slobodi/ (Accessed: 23 September 2024).

- *Pre-trial detention, Guidance Note 5, KING'S College London, International Centre for Prison Studies.* Available at: https://www.prisonstudies.org/sites/default/files/resources/downloads/gn5_8_0.pdf.
- PREVENT. (2019) Analysis of the Application of the Principle of Opportunity in the Republic of Serbia. Available at: https://dpnsee.org/wp-content/uploads/2020/03/Analiza-primene-na%C4%8Dela-oportuniteta-u-Republici-Srbiji-compressed.pdf.
- *Increased number of prisoners in Europe*. Available at: https://bizlife.rs/povecan-broj-zatvorenika-u-evropi/ (Accessed: 13 February 2024).
- *Prisons are "in no way equipped" to deal with COVID-19.* Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7252088/ (Accessed: 17 April 2024).
- Serbia among the 20 European countries that released prisoners due to the pandemic. Available at: https://euractiv.rs/10-ljudska-prava/179-vesti/15086-srbija-meu-20-evropskih-zemalja-koje-su-oslobaale-zatvorenike-zbog-pandemije (Accessed: 22 June 2021).
- States of Incarceration: The Global Context 2021. Available at: https://www.prison-policy.org/global/2021.html (Accessed: 13 February 2024).
- *In Serbia, there are still more prisoners than spaces in prisons.* Available at: https://euractiv.rs/2-srbija-i-eu/102-vesti/16069-u-srbiji-u-zatvorima-i-dalje-vie-zatvoreni-ka-nego-mesta (Accessed: 22 June 2021).
- 11 million people in prisons around the world. Available at: https://www.politika.rs/scc/clanak/387260/Hronika/U-zatvorima-sirom-sveta-11-miliona-ljudi (Accessed: 31 August 2021).
- Prisons are as full as beehives. Available at: http://www.politika.rs/scc/clanak/74307/Zatvori-puni-kao-kosnice (Accessed: 22 June 2021).
- World Prison Brief data. Available at: https://www.prisonstudies.org/world-prison-brief-data (Accessed: 17 April 2024).

OTHER

- Report on the Work of the Administration for the Execution of Criminal Sanctions for the Year 2011. Available at: http://www.uiks.mpravde.gov.rs/images/Godisn-ji_2011_%20UIKS.pdf, (Accessed: 31 August 2021).
- Report on the Work of the Administration for the Execution of Criminal Sanctions for the Year 2012. Available at: http://www.uiks.mpravde.gov.rs/images/UKKS_izvestaj_2012.pdf, (Accessed 31 August 2021).

- Republic Statistical Office (2017). Statistical Yearbook of the Republic of Serbia. Available at: https://publikacije.stat.gov.rs/G2017/Pdf/G20172022.pdf (Accessed: 30 September 2024).
- Republic Statistical Office (2019). Statistical Yearbook of the Republic of Serbia. Available at: https://publikacije.stat.gov.rs/G2019/PdfE/G20192052.pdf, (Accessed: 23 September 2024).
- Republic Statistical Office (2020). Statistical Yearbook of the Republic of Serbia. Available at: https://publikacije.stat.gov.rs/G2020/Pdf/G20202053.pdf (Accessed: 23 September 2024).
- Republic Statistical Office (2021). Statistical Yearbook of the Republic of Serbia. Available at: https://publikacije.stat.gov.rs/G2021/PdfE/G20212054.pdf (Accessed: 22 September 2024).
- Republic Statistical Office. (2022). *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2022/PdfE/G20222055.pdf (Accessed: 22 September 2024).
- Republic Statistical Office. (2023). *Statistical Yearbook of the Republic of Serbia*. Available at: https://publikacije.stat.gov.rs/G2023/Pdf/G20232056.pdf (Accessed: 23 September 2024).

PROBLEM PRENASELJENOSTI ZATVORA SA OSVRTOM NA STANJE U REPUBLICI SRBIJI

Milica Simovića

Poslednjih godina 21. veka zatvorski sistemi suočeni su sa enormnim porastom zatvorenika širom sveta. Da li je oduvek postojao problem prenatrpanosti zatvora ili je rezultat modernog doba, zanimljivo je pitanje na koje su pokušali dati odgovore brojni teoretičari kroz objašnjenje ovog fenomena sa različitih aspekata ukazujući na moguće uzročnike, posledice, određena rešenja kao i karakteristike populacije koja karakteriše mnoge zatvore. Prisutan je takođe i veliki društveni uticaj, s obzirom da svako društvo bilo kog društvenog sloja ima sopstveno mišljenje o svrsi zatvora i populaciji smeštenoj u njih. Kako se kreće zatvorska populacija, koje promene donosi sa sobom, kao i koji su mogući načini prevazilaženja prenaseljenosti zatvora ključna su pitanja na koja se autor osvrće u radu, kroz isticanje da prenatrpanost zatvora kao trend, sudeći na osnovu statističkih podataka i brojne literature, preti da prevaziđe sve kapacitete i nanese velike društvene, fizičke i psihičke posledice po osuđenike.

KLJUČNE REČI: zatvori, porast broja zatvorenika, uzroci prenatrpanosti, načini smanjenja prenatrpanosti, alternativne sankcije, resocijalizacija

© 2025 by authors



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

^a Master pravnik

ŠKULIĆ, M., KOLAKOVIĆ-BOJOVIĆ, M. & MATIĆ-BOŠKOVIĆ, M. (2024) THE ROLE OF THE CONSTITUTIONAL COURT OF THE REPUBLIC OF SERBIA IN PENAL PROCEEDINGS. BELGRADE: INSTITUTE OF CRIMINOLOGICAL AND SOCIOLOGICAL RESEARCH

Aleksa Škundrića

Maybe the most challenging areas of law for theoretical research are the ones that stand at the crossroads of traditional, well established fields or disciplines of law. That is so because, naturally, most legal theoreticians are primarily versed within the contours of "their own" fields of scientific interest, which in most cases encompass a certain legal discipline. On the other hand, these "border areas" require knowledge from both legal disciplines between which they exist. For example, an author that aims to research international criminal law must be skilled in criminal law, but also in international law in general, in order for his research to be comprehensive. The same applies to an area in which the topic of the monograph to which this review is dedicated belongs – the topic of constitutional appeal in the context of penal proceedings – which is situated at the crossroads of criminal law, and more precisely, law of criminal procedure, and constitutional law.

It seems that the monograph "The Role of the Constitutional Court of the Republic of Serbia in Penal Proceedings" is up to the challenge discussed in the previous paragraph of this text. Firstly, all three of its co-authors are well established legal experts in their respective fields of theoretical (but also practical) interest. Professor dr Milan Škulić, aside from being the full professor at the Department of Criminal Law at the University of Belgrade – Faculty of Law, specialized among other fields in the field of the law of criminal procedure, is also a judge of the Constitutional Court of Serbia, whose everyday work at the Court encompasses, *inter alia*, the work on the constitutional appeals arising from the practice of penal, and most importantly, criminal courts. Besides professor Škulić, the co-authors of this book are also two senior research fellows of the Institute for Criminological and Sociological Research, dr Milica Kolaković Bojović and dr Marina Matić Bošković, both renowned authors in the field of, among others, criminal law.

^a Teaching Assistant, University of Belgrade – Faculty of Law; researcher, Central European Academy, Budapest. E-mail: skundricaleksa5@gmail.com, ORCID https://orcid.org/0009-0003-6623-5080

Secondly, the monograph itself speaks about its high-level quality. The style in which it is written is a classical legal one, but at the same time plain, coherent and understandable to a reader, even if he is not a lawyer by profession. Besides referring to classical theoretical works, the authors have made an effort to use a wide range of case law, which is worth of appraisal, particularly having in mind the main topic of the monograph, which is dominantly oriented towards the jurisprudence of the Constitutional Court of the Republic of Serbia. That said, the monograph contains references to a number of important decisions of the Constitutional Court, as well as of other relevant judicial bodies, such as the European Court of Human Rights.

The book contains four main chapters, the first of which is dedicated to the introduction to the topic, as well as to general methodological issues. The second chapter, with which the "substantive" part of the book begins, deals with the normative and institutional framework of constitutional protection in the Republic of Serbia. Therefore, it primarily focuses on the *de lege lata* analysis of relevant sources of law that deal with various substantive and procedural issues regarding the Constitutional Court of the Republic of Serbia. Given the topic of this monograph, we can argue that the most important part of this chapter is the one that is concerned with the rules regarding the procedure in relation to the constitutional appeal before the Constitutional Court.

In the second chapter, the authors share with us the results of the in-depth quantitative analysis they conducted during their research. This chapter is full of valuable data that can give us an important insight into the practice of the Constitutional Court of the Republic of Serbia in the field of constitutional appeals related to penal proceedings. For example, the authors provide us with the quantitative dimension of rights which are being put forward in the constitutional appeals by the appellants. Namely, the most often cited human right which, according to the appellants, was violated is the right to fair trial.

Finally, in the third chapter of the book, the authors conduct a synthentic case-study, putting a main emphasis on the somewhat contentious issues which arise in the jurisprudence of the Constitutional Court of the Republic of Serbia regarding the constitutional appeals in the field of penal, and most importantly, criminal proceedings. The first question to which the authors pay attention is the question of the place of the *ne bis in idem* principle in the legal practice of the Constitutional Court of Serbia. In this regard, the authors conclude that the "practice of the Constitutional Court of Serbia in a whole series of cases relies on the criteria established in the practice of the European Court of Human Rights – first of all, the "Engel criteria". The second question that is being addressed by the authors within this chapter of

the book is the question of the jurisprudence of the Constitutional Court in relation to the measure of detention and other measures similar to detention. In this regard, the monograph contains a very interesting dissenting opinion of the judge of the Constitutional Court, professor dr Milan Škulić, on the decision of the Constitutional Court number UŽ-738/2014. Besides these questions, the fourth chapter of the book also contains parts dedicated to some other issues, namely the practice of the Constitutional Court regarding the constitutional appeals submitted by an injured party, the legal reasonings of the Constitutional Court related to the right of the defendant to an impartial criminal court, as well as the legal reasonings of the Constitutional Court regarding some relevant aspects of constitutional appeals submitted against the judgments of the courts for misdemeanors.

The reviewed monograph represents a valuable contribution to legal science in general, and particularly to the disciplines of criminal law and constitutional law. Moreover, the multidisciplinary approach applied by the authors of this monograph makes it attractive to a wider range of potential readers – in the first place, the readers are expected to be the lawyers (theoreticians and practitioners) that specialise in these two fields of law. However, given the simple style and interesting approach that guided the authors during its writing, this book can certainly be of interest to the whole legal public, including the students of law faculties, as well as to the overall public in general, given the fact that its content covers the analysis of the legal tool, namely the constitutional appeal, which is designed as a "last (national) legal tool" available to the citizens of the Republic of Serbia in defense of their human and minority rights and freedoms.

© 2025 by authors





This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International

AUTHOR GUIDELINES

About the Journal

The Journal of Criminology and Criminal Law is triannual, peer reviewed scientific journal with over 60-year long tradition, co-published by the Institute of Criminological and Sociological Research, Belgrade, and the Serbian Association for Criminal Law Theory and Practice. According to the categorization of the Ministry of Science, Technological Development and Innovation, the Journal is categorized as M51 (Prominent/outstanding journal of national importance). The Journal includes articles in the field of criminal law, criminology, penology, victimology, juvenile delinquency, and other sciences that study etiology, phenomenology, prevention, and repression of crime. Moreover, the Journal is indexed in the prestigious global databases: ERIHPLUS, Dimensions, HeinOnline, and Crossref.

The Journal of Criminology and Criminal Law publishes original scientific papers, review papers, expert papers, polemics, and book reviews.

Papers may not be published or submitted for publishing anywhere else.

All submitted papers are checked for plagiarism and self-plagiarism before being sent for review.

Papers accepted for publication are published in the order determined by the Editor(s).

The Journal of Criminology and Criminal Law is an Open Access journal. All its content is available free of charge. Users can read, download, copy, distribute, print, and search the full text of articles, as well as establish HTML links to them, without having to seek the consent of the author or publisher. The journal does not charge any fees at the submission, reviewing, and production stages.

Manuscript submissions

All articles and papers should be sent via the online platform at https://rkkp.org.rs/en Before the first submission of the paper to the journal, the author must create a user account by selecting the registration option. On that occasion, he fills out the given form with basic information about himself and his expertise. Each time the author accesses this section, he logs in using the username and creates a password. After that, the author can start the submission process by selecting the "new manuscript" option.

On his profile, in the "My manuscripts" section, the author can track the status of the manuscript he submits for the journal, from the date of receipt, review, corrections, and final decision on acceptance/rejection of the work.

By submitting a manuscript, authors guarantee that the manuscript has not been previously published, is not under consideration for publication elsewhere, all authors have reviewed the work before submission and have agreed to its publication in the Journal of

Criminology and Criminal Law, and that all and only those individuals who have significantly contributed to the manuscript are listed as authors.

Peer review

All submitted manuscripts are subjected to a review process that involves assessing the manuscript's compliance with the technical instructions for authors and the method of double anonymous review of papers (the "double-blind peer review method"). Before the paper is sent to the reviewers, the editorial board assesses whether it is suitable for publication in the journal, considering its form and the journal's thematic scope.

The purpose of the peer review is to assist in the process of making an editorial decision on accepting or rejecting the received manuscript for publication and to assist the author in improving the quality of the paper through the reviewer's suggestions. Reviewers are selected exclusively based on their level of expertise on the topic of the paper and whether they have the relevant knowledge for paper evaluation. To prevent a conflict of interest, the reviewer and the author(s) must not come from the same institution.

Reviewers are assigned by the Editor(s), either individually or based on recommendations from members of the editorial board. Reviewers receive a review form along with the manuscript for evaluation. The complete procedure, from application to acceptance/rejection of the manuscript, can be followed on the Journal of Criminology and Criminal Law website.

MANUSCRIPT PREPARATION

Manuscript Length

Original research articles and review papers should not exceed 36,000 characters (with spaces) excluding title, abstract, key words, list of references, tables, graphs, and acknowledgments. The editors may approve the publication of longer articles when the scientific content requires it.

Correspondence, scientific critiques, debates or reviews should not excide 10,000 characters (with spaces) excluding list of references, tables, graphs and acknowledgments.

Manuscript format

The authors should use Latin script in Microsoft Word, A4-sized pages, with margins of 2.54, Times New Roman font, line spacing 1.5, and size 12.

The title of the paper is written with an initial capital letter, in bold and centered, in font size 14. First-level headings (section titles) are written with an initial capital letter, in bold, centered, and in font size 12. Second-level headings are written with an initial capital letter, in italics, centered, and in font 12. Third-level headings are written with an initial capital letter, centered, and in font 12. Headings should not be numbered.

Title of the paper (Times New Roman, 14, Bold) **The title of the chapter** (Times New Roman, 12, Bold)

Subtitle 1 (Times New Roman, 12, Italic)

Subtitle 2 (Times New Roman, 12, Regular)

Language

Manuscripts should be written clearly and in grammatically correct language. Manuscripts with numerous spelling and grammatical errors will not be accepted. The editorial board reserves the right to proofread and correct papers before publication, and proposed changes will be sent to authors for review and approval.

Title page

The first page should include: the title of the paper, author/s information, abstract and 4-5 keywords.

Title

The title of the paper should be concise and informative, relevant to the paper's topic, and include words suitable for searching and indexing. If the paper is written in Serbian language, the English translation should be provided.

Acknowledgments / Funding

For financial support, technical assistance, advice, and other forms of acknowledgments and funding open an asterix at the end of the title.

Authors

Author/s information includes: name, last name, affiliation, and email address. Including ORCID identifiers for all authors is mandatory.

Abstract

An abstract of up to 250 words should be provided. If the paper is written in Serbian language, the English translation at the end of the paper should be included. The abstract should not contain references. The abstract for original research papers should include a clearly stated subject, research goals, research questions/hypothesis, results, and discussion. For other types of papers, an unstructured abstract is recommended, except for book reviews, which do not require an abstract.

Keywords

With the abstract, three to eight keywords are required. If the paper is written in Serbian language, the English translation at the end of the paper should be included. Keywords should be relevant to the topic of the paper, and suitable for searching and indexing. Keywords are listed below the abstract and are separated by a comma.

KEYWORDS: one, two, three

Abbreviations

For each abbreviation used in the manuscript, the full name should be provided upon first mention.

Example: General Data Protection Regulation (GDPR), Criminal Procedure Code (CPC), European Union (EU), European Court of Human Rights (ECtHR), Organization for Security and Co-operation in Europe (OSCE).

Standard abbreviations should not be defined, e.g., df, SD

Tables, Graphs, and Figures

Tables and graphs should be created in Word format or a Word-compatible format and labelled with Arabic numerals in the order they appear in the text, along with a clear title describing them. Tables, figures, and graphs should be self-explanatory without referring to the text. In the text, refer to them as follows: 'In Table 1...' and 'In Figure 1...' An explanatory note, including abbreviations and asterisks denoting significance, should be placed below the table, graph, or figure.

The table, graph, or figure number and label should be written above them in bold, aligned to the left. The title of the table, graph, or figure should be written below its number and label, with an initial capital letter, in italics, and aligned to the left.

Tables should not contain vertical lines. Horizontal lines should be used at the top and bottom of the table to separate the header from the other rows. All textual entries should begin with a capital letter. Titles in the header and all entries should be centered, except for entries in the far-left column, which should be left-aligned without a period at the end.

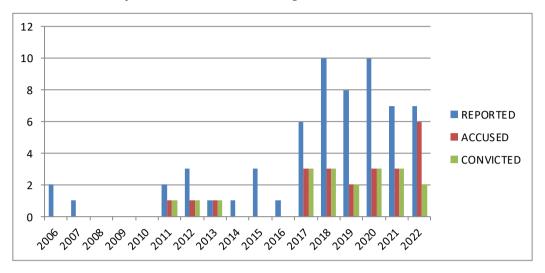
Graphs and figures should be legible in terms of size and resolution. The legend explaining symbols should be positioned within the boundaries of the graph or figure.

Table 3Differences in tattooing status

	Odds Ratio for a tattoo (Yes/No)	95% Confidence Interval		p
		Lower	Upper	
Country of birth (Greece vs abroad)	2.243	0.813	6.192	0.11
Having children (Yes vs No)	0.773	0.328	1.821	0.555
Having a child <18 years (Yes vs No)	2.429	1.104	5.343	0.025
Conviction for a violent crime (Yes vs No)	2.748	0.624	12.112	0.166
History of drug-addiction (Yes vs No)	4.505	1.507	13.464	0.004
Alcoholism (Yes vs No)	1.050	1.013	1.089	0.194
Smoking (Yes vs No)	7.533	2.509	22.611	< 0.001
Psychiatric medication (Yes vs No)	2.036	0.720	5.757	0.173
History of attempted suicide (Yes vs No)	1.455	0.147	14.429	0.748

Figure 1

The ratio of the number of reported, accused, and convicted for a criminal offense under Article 266 of the Criminal Code in the period 2006-2022.



Footnotes

Footnotes may only be used exceptionally, and that is to provide additional information.

In-text Citation Rules

Citing sources used in the text of the article and listing references should be in accordance with the current version of the Harvard Citation Style.

Harvard style referencing is an author/date method. Sources are cited within the body of your assignment by giving the name of the author(s) followed by the date of publication. All other details about the publication are given in the list of references or bibliography at the end.

Citations which are used with direct quotations or are referring to a particular part of a source, should include the page number in citation.

Example: (Stevanović, 2009, p. 152) or Stevanović (2009, p. 152).

If the author(s) name appears in the text as part of the body of the assignment, then the year will follow in round brackets, e.g. According to Stevanović (2009). If the author(s) name does not appear in the body of the text, then the name and date should follow in round brackets, e.g. The terminology has been called into question when it was discovered...(Stevanović, 2009).

The abbreviations *ibid*. and *idem*. should not be used within the Harvard referencing system.

If referencing multiple works from one author released in the same year, the works are allocated a letter (a, b, c etc.) after the year. This allocation is done in the reference list so is done alphabetically according to the author's surname and source title:

Example: (Batrićević, 2023a, p. 189) or Batrićević (2023b, p. 189)

Some authors have the same surname and works published in the same year, if this is the case use their initials to distinguish between them, e.g. When looking at the average income it was found that...(Stevanović, I. 2009). However, it was also discovered that...(Stevanović, Z., 2009).

In some instances you may need to cite more than one piece of work for an idea. If this occurs, you should separate the references with a semicolon and cite them in chronological order, e.g. This point has been shown by numerous authors...(Jones, 2014; Smith, 2017).

When citing in-text, include the names of up to three authors. If there are four or more authors for the work you are citing then use the name of the first author followed by "et al.", e.g. This was shown to be the case when Taylor et al. (2015)...Or, the study shows...(Taylor et al., 2015).

For items where the author is a corporation/organization, cite the name of the organization in full, e.g. World Health Organization...(2016), unless their abbreviation is well–known, e.g. The governance of the network...(BBC, 2017).

If a work is designated as Anonymous or there is no author, use the title in italics in place of the Author, e.g. (*Law on Criminal Proceedings*, 2008).

If no date can be found, then you would state that there is no date.

If you are directly quoting from a source, then you should include the page number in your citation. A short quotation (under two lines) should be within the body of the text and in quotation marks. If the quote is more than two lines, then it should be presented as a new paragraph which is preceded by a colon and indented from the rest of the text. You do not need to use quotation mark.

If you are omitting materials from an original source, use three dots [...] to indicate this.

When citing a secondary source state the reference used first followed by 'cited in' and the original author: When citing a secondary source, the original source is cited first and then 'cited in' the source from which the quote was taken

Example: (Nikolić-Ristanović, 2011, cited in Ćopić, 2020, p. 120).

Rules for citing references in the reference list

All references cited in the paper should be written in Latin alphabet, following Harvard Citation Style, at the end of the paper, in the Literature section. Use the following setting: *Paragraph – Indentation – Hanging*.

Bibliographic entries are listed in alphabetical order according to the last name of the first author. In the case of multiple works with the same last name of the first author, references are listed alphabetically by the first name or initials. If there are multiple bibliographic entries by the same author, the criterion is the publication year, listed in chronological order, from earlier publications to more recent ones, following the rule: (a) bibliographic entries with no date/"n.d.", (b) dated bibliographic entries, and (c) bibliographic entries "in press". In the case of co-authored works with the same first author, the co-authored works should be listed after

the single author works, according to the last name of the next author. If there are two or three authors use "and" between the names rather than "&". If a bibliographic entry has no author, the name of the institution or the title of the work takes the first position. Prefixes such as certain or indefinite articles (e.g., a, the) are not considered when determining the order.

For references with four or more authors, include only the first author followed by *et al.* written in italics.

If a DOI number is available for reference, it should be provided in link format.

Example: https://doi.org/10.47152/rkkp.58.3.1

The list of references must not contain units which are not quoted in the paper and must contain all the units that are quotes including laws, reports, and web pages (web pages should be under the section Online Sources within the bibliography).

Books

Books with a single author

Author Surname, INITIAL(S). (Year) *Title*. Edition (if not first edition). Place of publication: Publisher.

Example: Milutinović, M. (1977) Penology. Belgrade: Savremena administracija.

Books with two or three authors

Author Surname, INITIAL(S)., Author Surname, INITIAL(S). and Author Surname, INITIAL(S). (Year) *Title*. Edition (if not first edition). Place of publication: Publisher.

Example: Pavićević, O., Bulatović, A., and Ilijić, Lj. (2019) *Otpornost – asimetrija makro diskursa i mikro procesa*. Beograd: Institut za kriminološka i sociološka istraživanja.

Books with four or more authors

First Author Surname, INITIAL(S). *et al.* (Year) *Title*. Edition (if not first edition). Place of publication: Publisher.

Example: Carrington, K. et al. (2018) Southern Criminology. London: Routledge.

Chapter in edited publications

Chapter Author Surname, INITIAL(S). (Year) 'Title of chapter', in Editor(s) Surname, Editor(s) Initial. (ed. or eds.) *Title of book*. Edition (if not first). Place of publication: Publisher, Page numbers.

Example: Blagojević, M. (2013) `Transnationalization and its Absence: The Balkan Semi-peripheral Perspective on Masculinities', in: Hearn, J., Blagojević, M. and Harrison, K. (eds.) *Transnational Men: Beyond, Between and Within the Nations*. New York: Routledge, 261-295.

Journal articles

Author of article Surname, INITIAL(S). (Year) 'Title of article', *Title of Journal*, Volume(Issue), Page range (if available). doi:

Example: Wright, R. F. (2017) 'Reinventing American prosecution systems'. *Crime and Justice*, 46(1), 395-439. https://doi.org/10.1086/688463

Conference papers

Author(s) of paper Surname, INITIAL(S). (Year) 'Paper title', *Conference title*. Place of conference, Date of conference. Place of publication: Publisher, Page numbers.

Example: Batrićević, A. Paraušić, A., Kubiček A (2020) 'Prison Based Educational Programs as a Means to Promote Ex-Prisoners' Right to Labour', *International Scientific Conference "Towards a Better Future: Human rights, Organized crime and Digital society", Conference Proceedings, Volume II, International scientific conference, Bitola, 03 October, 2020.* Bitola: "St. Kliment Ohridski" University, Faculty of Law Kicevo, 140 – 154.

Dissertation

Author Surname, INITIAL(S). (Year) *Title*. Award and Type of qualification. Awarding body. Example: Durr, M. (2023) *Urbanising the Security-Development Nexus: A Revisited Perspective on Segregation Governance in Miskolc, Hungary.* Doctoral dissertation. Durham University.

Laws and other legal documents

Title of the act (Year) Source of publication.

Example: Law on Criminal Proceedings, Official Gazette RS, No.58/04.

Web page

Web page with the individual author

Author Surname, INITIAL(S) (Year site was published/last updated) *Title of web page*. Available at: URL (Accessed: date).

Example: Rosen, M. (2021) *Michael Rosen Biography*. Available at: https://www.michaelrosen.co.uk/for-adults-biography/ (Accessed: 26 April 2021).

Web page with a group or organisation as author

Group or Corporate author (Year site was published/last updated) *Title of web page*. Available at: URL (Accessed: date).

Example: UNICEF. (2020) *COVID-19: Considerations for Children and Adults with Disabilities*. Available at: https://www.unicef.org/media/125956/file/COVID-19-response-considerations-for-people-with-disabilities-190320.pdf (Accessed: 24 May 24, 2024)

Web page with no author

Title of web page (Year site was published/last updated). Available at: URL (Accessed: date).

Example: Law on Execution of Criminal Sanctions, RS Official Gazette, No. 55/2014 & 35/2019 (2020). Available at: https://www.mpravde.gov.rs/files/LAW_ON_EXECUTION_OF_CRIMINAL_SANCTIONS.pdf (Accessed: 13 July 2023).

CIP - Каталогизација у публикацији Народна библиотека Србије, Београд

343

REVIJA za kriminologiju i krivično pravo = Journal of Criminology and Criminal Law / glavni i odgovorni urednik Božidar Banović. - Vol. 41, br. 1 (jan./apr. 2003)-

. - Beograd : Srpsko udruženje za krivičnopravnu teoriju i praksu : Institut za kriminološka i sociološka istraživanja, 2003-

(Beograd : Birograf Comp). - 24 cm Dostupno i na: http://www.iksi.ac.rs/revija.html

. - Tri puta godišnje. - Je nastavak: Jugoslovenska revija za kriminologiju i krivično pravo = ISSN 0022-6076

ISSN 1820-2969 = Revija za kriminologiju i krivično pravo

COBISS.SR-ID 116488460



Institut za kriminološka i sociološka istraživanja



Srpsko udruženje za krivičnopravnu teoriju i praksu



www.rkkp.org.rs