UNIVERSITY OF PUBLIC SERVICE
Doctoral School of Law Enforcement

Doctoral (PhD) Thesis

Co-dimensions of addiction and policing: psychoactive substance use among Hungarian full-time police students

by

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1 PHRASING THE SCIENTIFIC ISSUE

Psychoactive substances are used in all human communities (Room, 2015; Thakker, 2013; Withington, 2014). This is probably why the use of legal and illegal substances is one of the most researched topics today. Psychoactive substances are chemical substances that affect various mental processes and moods of the consumer, such as cognition, perception, emotions and consciousness (WHO, 1994). The main characteristic of psychoactive substances is that they act on the central nervous system of the living organism. The topic is therefore closely linked to the various natural sciences. On the other hand, substance use is also a phenomenon, a so-called social phenomenon, because it is related to coexistence of people, and interactions between people (Farkas, 2010). This makes it an interesting topic for the social sciences, including police science.

The study of psychoactive substance use is an important issue for police science because a number of international studies indicate that the prevalence of substance use among police officers is higher than the general population (Chopko, Palmieri & Adams, 2013; Johns, Kumar & Alexander, 2012; Smith et al., 2005; Swatt, Gibson & Piquero, 2007). Nevertheless, in Hungary, apart from a few exceptional studies (Borbély, 2019a; 2020b; Cséplő, Balla & Pusztafalvi, 2015; Mácsár, Bognár & Plachy, 2017; Ritter, 2004), there has been no research on the drug use of Hungarian police officers in recent decades.

Even less is known about the substance use behaviour of young people who choose a career as a police officer. So far, no targeted drug epidemiological or health behaviour studies have been conducted among Hungarian law enforcement students. This would be justified not only by their chosen profession, but also by their age and college student status. Several international studies show that university students have high rates of smoking, alcohol and illicit drug use compared to the general population (Baer, Stacy & Larimer, 1991; Hefner et al., 2018; Roberson et al., 2018; Schulenberg et al., 2020; Skidmore, Kaufman & Crowell, 2016; Welsh, Shentu & Sarvey, 2019). There is also a high prevalence of caffeinated drinks consumption among university students. (Bertasi et al., 2021; Katib et al., 2018; Malinauskas et al., 2007; Mahoney et al., 2019).

Police students are at multiple risk of psychoactive substance use. Indeed, the training of police students takes place in a specific context in which certain features of police and academic culture (which are also relevant to substance use) are mixed. On the other hand, training of police officers has many specific characteristics (e.g. physical and mental workload, hierarchy, strict rules, compulsory service) that may increase the risk of substance abuse. In my

dissertation I present the results of a descriptive epidemiological study on alcohol and caffeine consumption, smoking habits and the prevalence of illicit substance use among full-time police officer students at the Hungarian higher law enforcement education.

2 THE PURPOSES OF THE RESEARCH

(1) Objective. One of the main objectives of the study to describe the smoking, alcohol, caffeine and illicit drug use habits of police students at the Hungarian higher law enforcement education (University of Public Service, Faculty of Law Enforcement).

(2) Objective. The aim of the dissertation is to present the prevalence of problematic substance use and substance use disorders in relation to legal psychoactive substances (alcohol and caffeine use, smoking).

(3) Objective. In my research, I also wanted to investigate the motivating factors behind the psychoactive substances that pose the greatest public health risk, namely alcohol and tobacco use.

(4) Objective. The research also aimed to investigate the relationship between psychoactive substance use and problematic substance use behaviours and the independent sociodemographic variables of the study population: gender, residence, marital status, parental education, socioeconomic status of the family, religiosity.

(5) Objective. The aim of the research was to analyse the reliability of valid questionnaires commonly used in drug epidemiological studies among police students as a special population. The questionnaires examined in the research were: Alcohol Use Disorders Identification Test (AUDIT), Caffeine Use Disorder Questionnaire (CUDQ), Fagerström Test for Nicotine (FTND), Smoking Severity Index (DSI), short form of the Drinking Motive Questionnaire Revised (DMQ-R-SF) and Substance Use Inventory (SUI).

3 HYPOTHESES OF THE DISSERTATION

H.1. (Alcohol consumption): I assume that the prevalence of alcohol use among police students is similar to the general population and to the students at other universities; and there is a similar pattern of alcohol use along sociodemographic characteristics as in the general population.

H.2. (Problem drinking): I assume that, like other university populations, problem drinking is also found among police students.

H.3. (Smoking): Due to the higher than average physical demands, I assume that police students have lower rates of current smoking compared to the age and adult population, and that the majority of police students who smoke daily have low dependence.

H.4. (Motivation for drinking and smoking): I assume that police students' alcohol consumption is motivated primarily by social factors. For smoking, I assume that there are significant differences in the structure and mean values of motivation between men and women and between regular and occasional smokers.

H.5. (Caffeine consumption): I assume that, women consume caffeine more frequently and in greater quantities than men among police students, but that energy drinks are more likely to be consumed by men.

H.6. (Caffeine use disorder): My hypothesis is that among the diagnostic criteria for caffeine use disorder, cravings, over/prolonged use and avoidance of withdrawal are the most common; and that regularity of caffeine use is associated with a higher number of symptoms.

H.7. (Law enforcement duty and intensity of substance use): I hypothesise that law enforcement duties (performed during training) are positively associated with an increase in the intensity of smoking and caffeine consumption.

H.8. (Illicit drug use): My hypothesis is that the use of illicit drugs is less prevalent among police students compared to the general population; but the same gender differences and consumption preferences are observed for illicit drug use.

H.9. (Perception of illicit drug use): I also assume that there is a significant correlation between drug experimentation and perceptions of illicit drug use.

H.10. (Co-occurrence of the use of different psychoactive substances): I assume that there is a significant association between caffeine consumption and smoking, as well as between illicit drug experimentation and alcohol consumption and smoking among police students.

H.11. (Measuring instrument reliability): I assume that the valid questionnaires commonly used in drug epidemiological studies (AUDIT, CUDQ, FTND, DSI, DMQ-R-SF, SUI) can be applied with sufficient reliability in this specific population.

4 RESEARCH METHODOLOGY

Due to the topic of the dissertation, it covers several disciplines. In the first part of the thesis, the natural and social sciences related to the topic are presented. For this, I have reviewed the national and international literature.

The second part of the dissertation presents the results of a descriptive epidemiological study. The survey was conducted among police students (N=417) at the University of Public Service Faculty of Law Enforcement. A total of 270 people completed the survey bateria, with a nearly two-thirds (64.8%) response rate. The average age of the students in the sample (n=270) was 21.8 years (±0.26 years, CI 95%). Slightly more than half of the participants are male (57.4%) and most of them come from smaller towns (38.9%) or villages (33.0%). More than half (52.5-86.1%) of students from each year group participated in the survey. The majority of participants (69.3%) come from a middle-income family and 57.4% consider themselves to be religious in some way.

The questionnaire was created with a licensed questionnaire creator (*http:// www.online-kerdoiv.com*), which meets the methodological requirements and ensures the technical conditions necessary for the validity of the research. Data collection took place between 24 January and 12 April 2022, using a self-completion online questionnaire.

The questionnaire used in the survey was based on the experience of previous drug epidemiological studies and health behaviour surveys (OLAAP, ESPAD, Youth Survey) in the adult and young population and on national and international methodological recommendations (WHO, EMCDDA). The questionnaire contained 56 main questions and 258 variables. The questions covered five broad areas: (1) sociodemographic background (gender, age, place of residence, socioeconomic status, religion, academic year); (2) prevalence, characteristics and motivation for alcohol use and prevalence of problem drinking and alcohol use disorder; (3) prevalence, characteristics and motivation of smoking and nicotine dependence; (4) prevalence and characteristics of caffeine use and caffeine use disorder; (5) prevalence and characteristics of illicit drug use.

1. Table: Indicators used in the study to estimate alcohol consumption and smoking and their compatibility (with x) with international recommendations and national drug epidemiological studies

Indicators	Compatibility					
	WHO	EMCDDA	OLAAP 2007	OLAAP 2015	OLAAP 2019	ESPAD 1995-2019
indicators of alcohol consumption						
lifetime prevalence						x
past 12 month prevalencia	x	x	x	x	x	x
annual consumption frequency	x	x	x	x	x	
30-day prevalence		x	x	x	x	x
past 12 month frequency of consumption	x	x	x	x	x	
age at first alcohol consumption			x	x	x	x

Indicators						
age at first drunknness			x	x	x	x
past 12 month frequency of binge drinking (6 or more drinks)	x	x	x	x	x[a]	x[a]
past 12 month prevalence of binge drinking (6 or more drinks)	x	x	x	x	x	
past 12 month prevalence of drunkness			x	x	x	x
past 12 month frequency of drunkness			x	x	x	
30-day prevalence of drunkness			x	x	x	x
30-day frequency of drunkness			x	x	x	
AUDIT	x		x	x	x	
indicators of smoking						
lifetime prevalence		x	x	x	x	x
past 12 month prevalencia			x[b]	x[b]	x[b]	x
30-day prevalence			x[b]	x[b]	x[b]	x
current smoking		x	x	x	x	x
smoking intensity		x	x	x	x	x
former smoking					x	
age at first smoking						x
age at current smoking						x
FTND			x	x		
DSI					x	
changes in smoking intensity on duty						

a*: Binge drinking is defined in the survey as drinking at least 5 drinks at a time.*
b*: The prevalence values for the different time periods were queried in one question*

2. Table: Indicators used in the study to estimate illicit drug use and their compatibility (with x) with international recommendations and national drug epidemiological studies

Indicators	**Compatibility**				
	EMCDDA	OLAAP 2007	OLAAP 2015	OLAAP 2019	ESPAD 1995-2019
life prevalence by illicit drug	x	x	x	x	x
past 12 month prevalence by illicit drug	x	x	x	x	x
30-day prevalence by illicit drug	x	x	x	x	x
perceived consumption	x	x	x	x	

I conducted descriptive-statistical analyses along the main sociodemographic factors. Along the nominal variables, Chi-square test (χ^2) and Cramer's coefficient (V) or Phi correlation effect size coefficient (φ) were calculated. For metric variables, I used a two-sample t-test (t)

and multivariate logistic regression with Cohen's effect size (d). I assessed significance based on the p-value, using significance levels of 5%, 1% and 0.1%. To test the reliability of the measures used in the study (AUDIT, FTND, DSI, CUDQ, DMQ-R-SF, SUI), I determined the Cronbach's alpha (Cronbach's α) to estimate internal consistency.

I paid particular attention to compliance with research ethics requirements. The research was conducted in accordance with the Helsinki Declaration on the Ethical Principles for Research Involving Human Subjects (WMA, 2014) and the general scientific ethical requirements of the Code of Ethics of the University of Public Service.

5 RESULTS

5.1 Reliability of survey questionnaires among police students

The results show that the internal consistency of the standard measures used to estimate problematic substance use and to explore the motives for use are generally acceptable in this special sample. This suggests that, despite the sensitivity of the topic, it does not induce simulation-dissimulation tendencies, i.e. these standard questionnaires can be reliably used among police students.

3. Table: Reliability indicators (Cronbach's alpha) of the measurement instruments used in the research

Scale	Number of items	Number of valid replies	Cronbach α
Alcohol Use Disorders Identification Test (AUDIT)	10	269	0.73
Fagerström Test for Nicotine (FTND)	6	40	0.61
Smoking Severity Index (DSI)	2	40	0.63
Caffeine Use Disorder Questionnaire (CUDQ)	10	265	0.82
Short form of the Drinking Motive Questionnaire Revised (DMQ-R-SF)			
Social	3	269	0.82
Enhancement	3	269	0.61
Coping	3	269	0.80
Conformity	3	269	0.71
Substance Use Coping Inventory (SUI)			
Social motives	4	96	0.79
Self-enhancement motives	4	96	0.82
Boredom relief motives	2	96	0.85
Affect regulation motives	4	96	0.87

5.2 Prevalence, characteristics and patterns of alcohol consumption among police students

The results indicate that almost all of the police students (99.6%) have tried alcohol at least once in their lives. 98.5% had been drinking during the year before the survey and 85.5% in the last month. One fifth of police students (20.0%) had been drinking alcohol at least once a week in the month preceding the survey.

4. Table: Main indicators of alcohol consumption by gender and as a proportion of respondents

Indicators	All		Male		Female		p
	n	*%*	*n*	*%*	*n*	*%*	
past 12 month prevalence	270	98.5	155	98.1	115	99.1	0.47
30-day prevalence	270	85.2	155	86.5	115	83.5	0.49
at least weekly consumption in the last 30 day	270	20.0	155	23.9	115	14.8	0.06
at least daily consumption in the last 30 day	270	0.0	155	0.0	115	0.0	-

n: number of respondents
p: significance value (χ^2 test)

More than a quarter of police students (27.4%) had been drunk at least six times in the past 12 month. Around three quarters (77%) of police students had binge drinking in the previous year. Students scored an average of 4.83 (SD=3.44) on the AUDIT. Problem drinking affects 18.5% of students, which prevalence three times higher than the general population. 1.9% of police students were suspected of having a clinical disorder (alcohol dependence).

Overall, police students drink more, more often and more heavily than the general Hungarian adult population. Furthermore, the prevalence of problem drinking is also higher among police students. Compared to students at other universities, however, the rates of alcohol consumption by police students do not appear to be outstanding. However, in this sample there are no significant gender differences in alcohol consumption.

The ranking of the motivations for alcohol use was in line with previous research conducted in Hungary (Németh, 2011; Németh et al., 2012). Social motivation (6.36; SD=1.63) was found to be the most significant motive, followed by enhancement (4.35; SD=1.33), coping (3.79; SD=1.19) and conformity (3.6; SD=1.03). In contrast to previous studies, however, there were no significant gender differences in the motivational structure of police students.

The results of logistic regression suggest that the peer motivation factor, irrespective of gender, increases the risk of current alcohol use, as well as the risk of excessive and problem drinking. However, the results also showed that in addition to social motivation, the enhancement motive predicted binge drinking and problem drinking.

5.3 Prevalence, characteristics and patterns of smoking among police students

According to survey results, more than three quarters (77%) of police students have tried smoking in their lifetime. 47.8% had smoked in the last year and a third (34.4%) had smoked in the last 30 days as well. 35.6% of police students are current smokers, i.e. smoke with some regularity. 14.8% of police students are regular (daily) smoker.

5. Table: Main indicators of smoking by gender as a proportion of respondents

Indicators	All		Male		Female		p
	n	*%*	*n*	*%*	*n*	*%*	
lifetime prevalence		77.0		73.6		81.7	0.11
last 12 month prevalence	270	47.8	155	45.8	115	50.4	0.45
30-day prevalence		34.4		36.1		32.2	0.49
current smoking							
regular smoking		14.8		16.1		13.0	0.48
occasional smoking	270	20.8	155	16.8	115	26.1	0.06
lifetime prevalence of current smoking		47.4		45.2		50.4	0.39
smoking cessation							
quit smoking[*]	270	11.9	155	12.3	115	11.3	0.81
quit regular (daily) smoking [**]		4.1		3.2		5.2	0.41

n: number of respondents
p: significance value (χ² test);
[*] Not currently a smoker, but used to smoke occasionally or regularly;
[**] Not currently a smoker, but used to smoke regularly (daily)

According to the results of a recent survey, there is no significant gender pattern in smoking among police students. However, there is a higher proportion of women among occasional

smokers (female: 26.1% vs. male: 16.8%), while men are over-represented among daily smokers (male: 16.1% vs. female: 13.0%).

The results of the FTND and DSI scales used to assess nicotine dependence show that the vast majority of police students who smoke regularly (daily) do not have a high level of dependence. The average FTND scores show a very slight or slight dependence for 85% of students. And according to the DSI, half of the students (50.0%) have moderate nicotine dependence and 45% have low nicotine dependence. Women (60%) have higher rates of low nicotine dependence compared to men (36%).

Social influences play a significant role in motivations to smoke, regardless of gender and frequency of use. The results show that, compared to women, male police students are significantly more likely to be motivated by self-enhancement and boredom. The research also shows that, during law enforcement duty smoking intensity increases significantly greater among male than female students. This may be related to the fact that men are more likely to smoke to reduce boredom or for social reasons.

5.4 Prevalence, characteristics and patterns of caffeine consumption among police students

The results of the present study show that 98.1% of police students have used caffeine in their lifetime or still use it. More than half (56.2%) of students consume some kind of caffeinated product daily. However, police students' caffeine use is not outstanding compared to the general population of their age group.

Among police students, women started to consume caffeine-containing products at a significantly younger age and are now more likely to consume caffeine daily than men. Female were 2.3 times more likely (OR=2.28; 95% CI: 1.37-3.78) to be involved in regular caffeine consumption compared to male.

The average daily caffeine intake for total sample was 111.20 mg (SD=134.14) and 197.78 mg (SD=121.89) for regular (daily) consumers. Similar values are also found in studies in the same age group population. However, more than a fifth (22.8%) of regular caffeine drinkers consume at least 300 mg of caffeine a day. And 8.7% of them take 400 mg or more caffeine daily.

Similar to other previous studies (Ágoston, 2014; Ágoston et al., 2018; Fulgoni, Keast & Lieberman, 2015), the products most consumed by police students are tea, coffee and caffeinated soft drinks (cola, energy drinks). Daily consumption of coffee, instant coffee and

tea is significantly higher among women than men. However, there is no significant gender difference in energy drinks consumption.

The results show that about two thirds (68.3%) of regular and occasional caffeine users perceive an increase in the intensity of their caffeine consumption during law enforcement duties.

More than half (54.3%) of current caffeine user police students have experienced at least one clinical symptom of caffeine use disorder in the past year. The diagnostic criterion perceived by the highest proportion of police students was craving (59.0%), consumption to avoid withdrawal symptoms (45.8%) and consumption of caffeine for a longer period of time or in larger amounts than planned (45.1%). Women experienced more symptoms on average compared to men. On average, regular (daily) users experienced significantly ($p<0.001$) more symptoms in the last 12 months than occasional caffeine users.

5.5 Prevalence, characteristics and patterns of illegal drug consumption among police students

The lifetime prevalence of illicit drug use among police students is 16.9%. 4.6% of students had used at least one type of illicit psychoactive substance in the last year, and 1.3% had used at least one type of illegal drug in the past 30 days. The prevalence of illicit drug use among police students is almost equal to the general population. However, there is no significant difference in illicit drug use between men and women.

6. Table: Main indicators of smoking by gender as a proportion of respondents

Indicators	All		Male		Female		p
	n	*%*	*n*	*%*	*n*	*%*	
lifetime prevalence	267	16.9	152	20.4	115	12.2	0.07
last 12 month prevalence	268	3.4	153	4.6	115	1.7	0.20
30-day prevalence	269	0.7	154	1.3	115	0.0	0.22

n: number of respondents
p: significance value (χ^2 test)

The most commonly used illicit psychoactive substances by police students are marijuana and hashish. 16.1% of students have tried a cannabis derivative in their lifetime. Cannabis users were more than 16 times (OR=16.68) more likely to have tried other illicit drugs compared to students who never used marijuana or hashish.

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The research also focused on the substance use perceived by police students in their own environment. Students who have at least one illicit drug user in their social environment are 14 times more likely (OR=14.18) to have used an illicit psychoactive substance in their lifetime compared to those who have no such relatives or friends.

5.6 Co-occurrence of the use of different psychoactive substances

In the research, I examined the co-occurrence of different substance use behaviours. The results show that current smokers are also much more likely than non-smokers to have binge drinking in the previous year and in the past month, and consume alcohol problematically.

There is also a medium effect size significant association between caffeine consumption and current smoking ($p < 0.001$; $\varphi = 0.2$). Regular caffeine drinkers were 2.7 times more likely (OR=2.69) to be current smokers compared to occasional caffeine users. However, a significant association with smoking was only found for coffee and energy drinks consumption, but not for cola or tea.

Alcohol consumption was significantly associated with the consumption of energy drinks and cola. Current energy drink drinkers were 2.6 times more likely (OR=2.64) and cola drinkers were 2.1 times more likely (OR=2.14) to have binge drunk in the past 30-day.

Significant associations of small to medium effect size are consistently found between illicit drug experimentation and other psychoactive drug use. Students who had tried an illicit drug at least once were 9 times more likely (OR=9.22) to have a current alcohol consumption and 3 times more likely to have a problem drinking (OR=3, 09) and current smoking (OR=3.03), and were more than 2 times more likely to have been involved in heavy drinking in the past year (OR=2.71), binge drinking in the past 30-day (OR=2.09), and daily smoking (OR=2.09).

6 CONCLUSIONS

Overall, the results show that police students use a variety of psychoactive substances at similar rates as the general population and other university students. In addition to the similarities with the general population, the results also point to some specificities of police students.

Of these, the lack of gender differences in the use of different drugs should be highlighted. In contrast to previous studies, there were no significant gender differences in the motivational structure of alcohol consumption among police students.

It is noteworthy that in the case of alcohol consumption, protective factors such as religiosity or relationship did not indicate lower rates of drug use among police students.

The lifetime prevalence of smoking among police students is high compared to students at other universities in Hungary or abroad. However, a positive result is that such high rates of current smoking no occur. The results also suggest that the characteristics of law enforcement training (law enforcement duties) increase the importance of boredom and social motives in the structure of smoking motivation.

Police students' caffeine use is also not outstanding compared to the average population of their age group. However, contrary to several national and international studies (Ágoston, 2018; Ágoston et al., 2018; Fulgoni, Keast & Lieberman, 2015; Rodler et al., 2005), the results suggest that the daily caffeine intake of women who regularly consume caffeine is higher than that of men. And there are no significant gender differences in energy drink consumption.

Our findings also suggest that not only the frequency of caffeine consumption, but also the amount of caffeine consumed per day is positively associated with the number of symptoms of caffeine use disorder. Evidence has also been found that consumer preferences may also play a role in the occurrence of symptoms of caffeine use disorder.

The lack of gender differences in the use of illicit drugs is also striking. Although male police students have higher rates of substance use than female students for all time periods. These differences were no significant.

7. Table: Summary of hypothesis test results

Hypothesis	Hypothesis testing results
H.1. (Alcohol consumption)	partly confirmed
H.2. (Problem drinking)	confirmed
H.3. (Smoking)	partly confirmed
H.4. (Motivation of alcohol consumption and smoking)	confirmed
H.5. (Caffeine consumption)	partly confirmed
H.6. (Caffeine use disorder)	confirmed
H.7. (Law enforcement duty and intensity of substance use)	confirmed
H.8. (Illicit drug use)	not confiremed
H.9. (Perception of illicit drug use)	confiremed
H.10. (Co-occurrence of the use of different psychoactive substances)	confiremed
H.11. (Measuring instrument reliability)	confiremed

7 NEW SCIENTIFIC RESULTS

The presented research includes unique scientific results in the following areas:

1. A summary of the alcohol, smoking, caffeine and illicit drug use of police officers has been produced, which has never been published in Hungarian before.

2. I was the first to examine the reliability of commonly used measures in drug epidemiology studies (AUDIT, FTND, DSI, CUDQ, DMQ-R-SF, SUI) among Hungarian police personnel.

3. The presented drug epidemiological study provides reliable data on the prevalence, the problematic nature of alcohol consumption among police students and the motivations for alcohol consumption.

4. The presented drug epidemiological study provides reliable data on police students' smoking habits, the nature of smoking, the extent of nicotine dependence and the motivation for smoking.

5. The presented drug epidemiological study provides reliable data on caffeine use, the prevalence of caffeine use disorder and their characteristics among police students.

6. The presented drug epidemiological study provides reliable data on the illicit drug use of police students and its association with the perception of illicit drug use.

8 RECOMMENDATIONS AND PRACTICAL USE OF RESEARCH RESULTS

The results of this dissertation contribute to the growing literature on drug epidemiology in Hungary, involving a relatively closed population.

The results and conclusions of the research are useful for law enforcement higher education, other law enforcement schools and law enforcement agencies. The results can be used to create a health promotion strategy that can be targeted to the specificities of law enforcement training and can have an impact on students' health risk behaviour. This can not only reduce the short-term risks that determine the training period (e.g. poor academic performance, absenteeism, falling behind, suspension of studies), but can also contribute to the longer-term health of police staff.

Based on the results, I recommend for the future:

- to examine the background to the lack of gender differences in the use of different drugs;

- to explore possible reasons for the high lifetime prevalence rates of smoking experimentation;
- carry out similar drug epidemiological (or health behaviour) studies on a regular basis, and also study students from other law enforcement agencies;
- develop institutional prevention and harm reduction strategies that take into account the specificities of law enforcement training and the profession.

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11 PROFESSIONAL AND SCIENTIFIC BIOGRAPHY OF THE AUTHOR

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In 2009 he was admitted to the Police College, specialising in customs and excise administration, where he graduated in 2012 with an excellent qualification as finance guard officer. In 2017, he graduated from the University of Public Service, and in the same year, from Semmelweis University. During his higher education, he was awarded several times at institutional and national scientific student conferences, and won two academic and professional awards.

He worked in various areas of the National Tax and Customs Administration. Since 2018, lecturer at University of Public Service, Faculty of Law Enforcement the Department of Customs and Finance. From 2021 to 2022, he was Deputy Technical Director of the National Laboratory of Security Technologies.

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Board member of the National Association of Subtance Abuse Consultants since 2020. Editor-in-Chief of the Hungarian Drug Monitoring professional journal between 2021 and 2022, and from 2021, editorial board member of the scientific journal Interdisciplinary Drug Review.