SUBSTANCE ABUSE IN THE CZECH POPULATION

Reflections on threats, their value context and possibilities of social prevention

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Preface

As a significant determinant of health and social well-being, substance abuse has affected all aspects of human life since the earliest days of human history. The effects of opium, cocaine, and hashish were known to our ancestors for thousands of years. On the one hand, these substances have healing, stimulating, and positively intoxicating effects; on the other, their abuse poses risks and dangers to the user and those around them. The use of these substances is widely debated and opinions on their prohibition, legalisation, and criminalisation are held across society. For the purposes of research and clarity in this book, we have categorised addictive substances into the following primary groups:

1. Legal addictive substances
   a) Alcohol
   b) Tobacco, nicotine and related products (also abbreviated as "smoking/tobacco")
   c) Medicines and medicinal products (abbreviated as "medicines / medical drugs")
2. Illegal addictive substances (abbreviated as "illegal drugs / drugs")

The book you are holding presents the results of an international Czech-Slovak interdisciplinary cross-sectional survey conducted in the period before the Covid-19 pandemic (2018–2019 collection) and during the pandemic (2020–2021 collection). Its ambition was to analyse associations between socio-demographic characteristics, a wide range of perceived social and health threats, value preferenc-

es, and respondents' leisure time. The interdisciplinary team in the Department of Christian Social Work of the Sts Cyril and Methodius Faculty of Theology at Palacký University in Olomouc was the head of the entire research and its implementation in the Czech Republic. The present book focuses on a specific part of a broad research issue in the Czech environment. In addition to the socio-demographic analysis of attitudes towards the abuse of the aforementioned four groups of addictive substances, the outcomes of the analysis of the original results of the measurement of reflections on the threat of these substances in four areas that are crucial for the social functioning of each user are presented. The first of these areas is naturally health and the possible health risks associated with substance abuse. The second is the economic risks associated with substance abuse. The third is the level of social relationships, status, and ties in the local community and society, and the fourth is the threat of substance abuse in the area of family and family relationships. The perceived threat in these four dimensions is analysed in relation to the value preferences of the respondents.

The authors of this book have attempted to approach the issue of addiction across disciplines in such a way that the relationship between the perceived threat of substance abuse and value preferences in contemporary society can be shown from the data. Value preferences are the key to selecting appropriate methods of social prevention and intervention when addiction occurs only at the stage of recognised threat. The book, without its interpretive level aspiring to describe clinical methods of dealing with addiction, provides a broader context of addiction issues and their reception than is usual in similar publications. The authors have not only devoted their efforts to mapping the situation but also offer suggestions for forms of prevention and intervention by social work and social pedagogy for groups at risk. In doing so, they distinguish between different groups of addictive substances that affect social functioning and value preferences in different ways.

The book is published with the support of the grant project IGA_CMTF_2022_005 Values context of social functioning II implemented at the Department of Christian Social Work, Faculty of Theology, Palacký University in Olomouc. Links to related texts with the presented research are available on the website of the department (https://kks.upol.cz/) and on Facebook (https://www.facebook.com/KKSPOlomouc/). Readers can send any comments and suggestions to the authors at their email addresses: ivana.olecka@upol.cz and jiri.pospisil@upol.cz.

Olomouc, June 2022

Ivana Olecká and Jiří Pospíšil

1 Substance use

In accordance with the Criminal Code (40/2009 Coll., § 130), an addictive substance is one that is capable of adversely affecting a person's psyche, control or cognitive abilities or social behaviour. Their use is one of the most important determinants of morbidity and mortality and is associated with a wide range of social and economic risks. Such substances include in particular alcohol, narcotic drugs and psychotropic substances. However, substances with a lower degree of danger that have the potential to cause addictive disorders, such as nicotine or prescription and over-the-counter drugs, are also considered addictive substances, i. e. those with the potential to cause addictive disorders. Narcotic drugs and psychotropic substances are classified in the UN Conventions according to:

1. danger to health,
2. risk of abuse,
3. therapeutic value.

Under the 1971 Convention, any substance, whether natural or synthetic, or any natural material that is listed in one of the four schedules, is designated as a psychotropic substance. Any substance on the four schedules, whether natural or synthetic, is designated as a narcotic substance by the 1961 Convention. Both lists are continuously updated (Zábranský 2005). According to Act No. 65/2017 Coll. on the protection of health against the harmful effects of addictive substances (Section 2), an alcoholic beverage is one containing more than 0.5% ethanol by volume.

Basic terminology separates the use of addictive substances into three categories:

1. The use of addictive substances, which means simple single-use or even repeated use that does not lead to any significant harm to the user.
2. Harmful use, where physical, psychological, or interpersonal harm to the individual is already occurring – in practice, the synonyms that are used are "abusive", "dysfunctional", "risky", and "problematic" (causing problems for the user or those around them).
3. Addiction syndrome. In practice, however, terms such as "substance use disorder", "harmful use", "misuse", or "high-risk drug use" (HRDU) are also used.

A specific category of abuse is the concept of problem use, which refers to the most intense and risky forms and patterns of drug use that are associated with the most serious health and social consequences – for example, frequent or heavy drug use or injection drug use, which has a higher risk of problematic consequences such as dependence or addiction (European Monitoring Centre for Drugs and Drug Addiction 1997). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines problem use as the repeated use of drugs with negative consequences involving dependence and other health, psychological and social problems, or presenting a high likelihood of such consequences, involving the use of psychoactive substances in a high-risk pattern (intensive) and/or high-risk application method in the last 12 months (Thanki and Vicente 2013; Mravčík et al., 2019). Mravčík (Mravčík et al., 2019) defines problematic substance use as the use of substances in high quantity and/or in a high-risk pattern, typically with developed dependence, which brings adverse health and social consequences to the user, others around the user, the community and society as a whole. However, it points out that the concept of problem drug

use is confused mainly with the concept of addiction due to the looseness of its definition, and the two categories overlap to a large extent. Substance dependence is a label for a chronic disease that is part of classification and diagnostic systems (Mravčík et al. 2019).

The International Classification of Diseases (ICD-10 1992) in its 10th revision[1] distinguishes addictive disorders caused by substance use into a total of 10 groups of psychoactive substances (dg. F10–F19).[2] These items are then further subdivided:

[1] The new 11th revision of the ICD (WHO, 2022) entered into force on 1 January 2022 with a five-year transition period. The ICD-11 represents a transition from a system of book lists to a more sophisticated structure, the management and display of which is made possible by storing the content in a structured electronic database. Unlike any previous revision, MKN-11 is primarily available in digital form and includes tools and software for using the classification to generate accurate descriptions of health information or events. The new version brings changes in both technical and content. Technical changes include a new coding scheme, a new data model, and the ability to combine codes for greater clinical detail and complexity of coded information. Content changes include the addition of items to a much greater level of clinical detail (ÚZIS 2022). Due to the extent of the changes, it is not possible to present the two schemes side by side in this publication. We are inclined towards the ICD-10 classification, especially because the new classification is not yet established in the Czech environment.

[2] In MKN-11, it corresponds to codes in group 6C4. Substance use disorders in this version include disorders resulting from the single or repeated use of substances with psychoactive properties, including some drugs. Disorders related to fourteen classes or groups of psychoactive substances that have significant clinical and public health consequences are included, and categories for other specified substances are also available:

- 6C40 Disorders Due to Use of Alcohol
- 6C41 Disorders Due to Use of Cannabis
- 6C42 Disorders Due to Use of Synthetic Cannabinoids
- 6C43 Disorders Due to Use of Opioids
- 6C44 Disorders Due to Use of Sedatives, Hypnotics or Anxiolytics
- 6C45 Disorders Due to Use of Cocaine
- 6C46 Disorders Due to Use of Stimulants including Amphetamines, Methamphetamine or Methcathinone
- 6C47 Disorders Due to Use of Synthetic Cathinones
- 6C48 Disorders Due to Use of Caffeine
- 6C49 Disorders Due to Use of Hallucinogens
- 6C4A Disorders Due to Use of Nicotine
- 6C4B Disorders Due to Use of Volatile Inhalants
- 6C4C Disorders Due to Use of MDMA or Related drugs, including MDA

.0 Acute intoxication (A condition following the administration of a psychoactive substance resulting in disturbances in the level of consciousness, cognition, perception, emotionality or behaviour, or other psychophysiological functions and responses. Disturbances are induced by direct acute pharmacological exposure and resolve with time, with complete recovery, unless tissue damage or other complications occur. Complications include: trauma, inhalation of vomit, delirium, coma, convulsions, and possibly other medical problems. The origin of complications depends on the substance and the method of use.).

- 6C4D Disorders Due to Use of Dissociative Drugs including Ketamine and Phencyclidine (PCP)
- 6C4E Disorders Due to Use of Other Specified Psychoactive Substances, including Medications
- 6C4F Disorders Due to Use of Multiple Specified Psychoactive Substances, including Medications
- 6C4G Disorders Due to Use of Unknown or Unspecified Psychoactive Substances
- 6C4H Disorders Due to Use of Non-Psychoactive Substances

The specific diagnostic categories that apply to the above classes of psychoactive substances are:

- Episode of harmful use of psychoactive substances
- Harmful pattern of psychoactive substance use
- Addiction to addictive substances
- Substance intoxication
- Substance withdrawal
- Substance-induced delirium
- Substance-induced psychotic disorder
- Substance-induced mood disorder
- Substance-induced anxiety disorder
- Obsessive-compulsive or related substance-induced disorder
- Substance-induced impulse control disorder
- Other specified substance use disorder
- Unspecified substance use disorder

Other categories of psychoactive substance-induced disorders are covered in other sections of ICD-11 on mental, behavioural and neurodevelopmental disorders. These categories relate to substance-induced catatonia, substance-induced amnestic disorder and substance-induced dementia.

.1 Harmful use (The harm may be somatic – hepatitis when injected, or psychological – episodes of secondary depression to severe alcoholism.).

.2 Dependence syndrome (A set of behavioural, cognitive and physiological conditions that develops after repeated use of a substance and typically includes a strong desire to use the drug, impaired control in its use, persistent use of the drug despite harmful consequences, priority use of the drug over other activities and commitments, increased tolerance for the drug and sometimes a somatic withdrawal state. A dependence syndrome may be present for a specific psychoactive substance.).

.3 Withdrawal state (A group of symptoms of varying clustering and severity occurring in absolute or relative withdrawal from a psychoactive substance after prolonged use. The onset and progression of withdrawal are time-limited and related to the type of psychoactive substance and the dose taken immediately prior to cessation or reduction of use. Withdrawal may be complicated by convulsions.).

.4 Withdrawal state with delirium (The "state" defined by characteristic .3 in the fourth position is complicated by delirium as defined in F05.-. Convulsions may also occur. If organic factors are suspected to play a role in the aetiology, the condition should be classified in F05.8.).

.5 Psychotic disorder (A set of psychotic phenomena occurring during or after the use of psychoactive substances but which cannot be explained by acute intoxication alone and are not part of the withdrawal state. The disorder is characterised by hallucinations, perceptual distortions, delusions, psychomotor disturbances and abnormal affect, which may range from intense fear to ecstasy. Consciousness is usually clear, but a degree of obscuration may be present, though not a severe state of confusion.).

.6 Amnestic syndrome (A syndrome associated with marked chronic impairment of memory of recent and remote facts. Immediate recall is usually preserved and recent memory is typically more impaired than ancient memory. Impairments in the sense of time and ordering of events are usually evident, as is an impaired ability to learn new things. Confabulation may be expressed but is not always present. Other cognitive functions may be relatively well preserved and amnestic defects are out of proportion to other impairments.).

.7 Residual and late-onset psychotic disorder (A disorder in which changes in cognition affect personality or behaviour induced by alcohol or a psychoactive substance persist beyond the period in which a direct effect in relation to the psychoactive substance may be expected. The onset of the disorder should be directly related to the use of the psychoactive substance. Cases in which the initial onset of the condition occurs later than the episode(s) of substance use should be coded here only if clear and convincing evidence is available that the effect can be attributed to a residual effect of the psychoactive substance. "Flashbacks" may be partly distinguished from a psychotic state by their episodic nature, normally of very short duration, and by their repetition of earlier experiences in relation to alcohol or another psychoactive substance.).

.8 Other mental and behavioural disorders.

.9 Unspecified mental and behavioural disorders.

Numerous international studies have also measured "heavy episodic drinking" (HED), which is measured by questions such as: In the last 12 months, how often have you had five or more drinks of alcohol on one occasion? One occasion in this situation means drinking. The threshold for heavy episodic drinking varies from country to country – for example, five drinks in Canada, Germany and the USA; six drinks in Chile, the Czech Republic, France, Hungary, Ire-

land, Italy and Switzerland. National definitions of the amount of pure alcohol contained in grams in a standard drink also vary from country to country. While a standard drink in the Czech Republic is considered to be one with 16 g of pure alcohol, in Denmark, Finland and Germany it is 12 g; in Estonia, France and Greece only 10 g and in the UK 8 g (Devaux and Sassi 2015).

Estimates of what can already be considered risky or harmful use vary. For example, for alcohol we talk about four categories:

1. abstainers[3],
2. low-risk consumers (less than 20 g of pure alcohol per day for women and 40 g for men),
3. at-risk drinkers, i. e. health-threatening alcohol use (≥ 20–40 g for women and ≥ 40–60 g for men per day, or a weekly net alcohol intake of 140 grams or more for women and 210 grams or more for men), and

[3] The reasons for abstinence can be various. The number of those who have never drunk alcohol in the Czech Republic is estimated at around 2.6%. The percentage of people who started abstinence later in life is 8.4%, which is considerably higher. For these people we assume mainly health reasons. However, there is a permanent risk of relapse for this group of people. According to Růžička, Prachařová et al. (Růžička et al. 2014), the reasons are:

- Loneliness
- Open door "to the past" – contact with non-abstaining people
- Long-term anxiety or depression
- Talk on abstinence not supported by concrete actions
- Clients do not consider themselves to be addicted
- Participation at a family party, wedding, etc.
- Suppressed feelings (especially anger)
- Partnership problems, lack of communication in the relationship
- Losses (break-up, divorce, death, job termination, etc.)
- Lack of self-definition, boundary problems
- Compensation for other frustrations (e. g. sexual, emotional aridity)
- Confusion regarding sexual preference
- Lack of hobbies, unsatisfactory leisure time
- Feelings of inadequacy, negative self-esteem
- Loss of prudence, desire for controlled drinking, "being like everyone else"
- Client's social environment

4. harmful use, i. e. alcohol consumption that already causes harm to health and may also have symptoms of dependence (≥ 40 g for women and ≥ 60 g for men per day).

Limits on estimated risk are also set for the use of medicines. The threshold for the category of the risky use of medicines (prescription and non-prescription) is considered to be use for more than 6 weeks. High-risk use is defined as repeated use of a substance with negative consequences including addiction and other health, psychological and social problems, or with a high likelihood of such consequences (Mravčík et al. 2019).

The American Society for Addiction Medicine (ASAM 2019) defines addiction as a treatable chronic disease that involves complex interactions between an individual's brain circuitry, genetics, environment, and life experiences. People with addictions use substances or engage in behaviours that become compulsive and often continue despite harmful consequences. The International Classification of Diseases (ICD-10) lists six features of addiction, and a diagnosis of addiction should usually be made only if three or more of these phenomena have occurred in the last year:

1. A strong craving or feeling of urge to use the substance (craving, longing, yarning).
2. Difficulty in controlling the use of the substance, in terms of starting and stopping drinking or the amount of the substance.
3. Physical withdrawal (withdrawal syndrome) – the substance is used with the intention of reducing or eliminating withdrawal symptoms.
4. An increase in tolerance to the effect of the substance – requiring higher doses of the substance to achieve the effect originally produced by lower doses; in the case of alcohol, tolerance increases to the point that the addict may take a daily dose that would incapacitate or even kill a normal user without tolerance.

5. The gradual neglect of other pleasures or interests in favour of the substance and devoting increased amounts of time to obtaining or using the substance or to recovering from its effects.
6. Continued use despite clear evidence of overtly harmful consequences (e. g. liver damage from excessive drinking, depression and anxiety states, health problems due to excessive drinking, etc.).

Zábranský in his publication Drug Epidemiology (Zábranský 2003) lists four stages of use leading to addiction:

1. Experimentation (the experimenter takes drugs with others only when offered to do so, recognising euphoric experiences. Health is not impaired, nor is work capacity and performance. This kind of use does not affect the finances of the person concerned. In the emotional sphere, curiosity prevails).
2. Active seeking stage (in this stage, the drug user associates with other users, separates himself from the original circle of people. He builds up his own resources and stock of drugs, sharing with others who use them with him. Health is mostly intact, but the first "highs" and "hangovers" occur. Work activity is sometimes affected by this, already spending money on drugs. On a feeling level, he seeks pleasure, but already experiences dysphoria).
3. Drug preoccupation (drug consumption increases, and therefore also the money spent on drugs; he distances himself from his original environment, changes his attitudes. Eating and sleeping disorders appear. He underperforms in the workplace, blackouts, looks unkempt, changes appearance, distances himself from others. He spends excessive amounts on drugs, goes into debt. On the feeling level, mood swings, attempts to control the situation and unpleasant states are frequent).
4. Addiction (All friends are using drugs. He lies, steals, sells drugs, borrows money on credit. He often takes drugs alone and already uses high doses of drugs. Health is impaired by multiple physi-

cal and mental problems. He has an unkempt appearance. He loses his job, has significant financial problems. He takes drugs to feel normal, to overcome guilt, and is fully preoccupied with drugs).

Substance use can take many forms and their classifications differentiate the type of drug used by origin (natural, semi-synthetic and synthetic), type of action and chemical composition (depressants, stimulants, hallucinogens), the degree of social danger (according to the severity of social consequences), availability (how available the substance is and how the use is affected by availability), the legal and social context (degree of social control and informal norms, regulation, repression) the rate (intensity of use) and the pattern of use. Substance abuse can be defined as the consumption of any drug (narcotic or psychotropic substance) for a purpose that differs from the intended purpose, in the manner of consumption or in the quantity. In the case of patterns of alcohol use, we speak of "patterns of use". These can be influenced by numerous factors of a biopsychosocial nature, such as age, gender, genetic make-up, education and employment, etc. (Collins and McNair 2002).

The abuse of medicines and medical devices can be specifically categorised. According to Mravčík (Mravčík et al. 2019), there are three types of problematic consumption:

1. Inappropriate treatment (inappropriate dosage, inappropriate time of administration, inappropriately indicated or performed treatment, especially for affective and anxiety disorders, insomnia, painful conditions or addictions (e. g. treatment of symptoms and complications without information about the underlying addiction diagnosis including alcohol dependence, treatment of pain without rehabilitation of the underlying disease).
2. Off-label use (purpose of use outside the context of formal treatment, use contrary to treatment recommendations, use of medi-

cation in combination with alcohol or illegal drugs, intentional overdose, accidental overdose or overdose for undetected reasons, illegal acquisition, use of medication to defraud or subjugate another person).

3. Use in risky or inappropriate situations (use while driving or operating machinery, use while swimming, playing sports, etc., use in situations where attention is required – e. g. caring for a child, doping in sport).

Tobacco and tobacco products together with alcohol are the most commonly used substances in the Czech environment. They belong to the category of "legal addictive substances". Despite the fact that access is regulated by law, their supply and availability is relatively widespread. They can be sold in grocery stores, newsagents, petrol stations, etc. Their sale is free trade. According to the EU-CEG, there were a total of 4,934 tobacco or herbal smoking products on the market in the Czech Republic as of June 2021 (about 5,000 different smoking tobacco products, including about 490 brands of cigarettes). There is also a specific range such as cigars (2,723) and shisha tobacco (644) (Ant 2022c). The high availability to minors can be considered problematic. According to a survey in the Global Youth Tobacco Use Study (GYTS), a total of 69.1% of current smokers aged 13–15 years did not face rejection of cigarette sales due to their young age, and 24.6% reported that they could buy single cigarettes, which is prohibited by law (GYTS 2016). The situation is similar for the availability of alcohol to minors. According to the European School Study on Alcohol and Other Drugs, 81.0% of the respondents could obtain beer quite easily or very easily, 70.0% consider cider, 67.6% wine and 54.1% alcopops and spirits to be easily available (Chomynová et al. 2020). Most alcohol is consumed in beer (4.6 l), spirits (2.8 l) and wine (2.3 l) (Mravčík 2022a).

Cannabis substances are among the most commonly used illegal substances. A total of 23.8% of the population (31.8% of males and

16.2% of females) aged 15 years and older have experience with this substance, with 8.6% having used it in the last 12 months. More than three-quarters of those who had used cannabis substances in the last 12 months had used them repeatedly (77.4%). The second most commonly used illegal drug in their lifetime was ecstasy (7.0%), followed by hallucinogenic mushrooms (5.9%), methamphetamine (2.7%), LSD and cocaine (both 2.1%) (Mravčík 2022b). According to this research, the subjective perceived availability of illegal drugs in the Czech Republic is relatively high – a total of 35.6% of all respondents (41.4% of males and 30.0% of females) aged 15+ years could easily or very easily obtain cannabis substances, 17.9% could easily obtain ecstasy, 13.4% hallucinogenic mushrooms and 13.1% methamphetamine. Illegal drugs are perceived as more accessible by men and respondents in the youngest age categories. In the graph showing the prevalence of illegal drug use in the general population (Figure 1), it can be seen that experience with illegal drug use is particularly high in the age group of young people up to 34 years of age, where 44.1% of the population report experience with cannabis and 18.6% report experience with ecstasy. There is a higher prevalence of use compared to the general population over 15 years of age in the age group up to 34 years of age for all drug types surveyed.

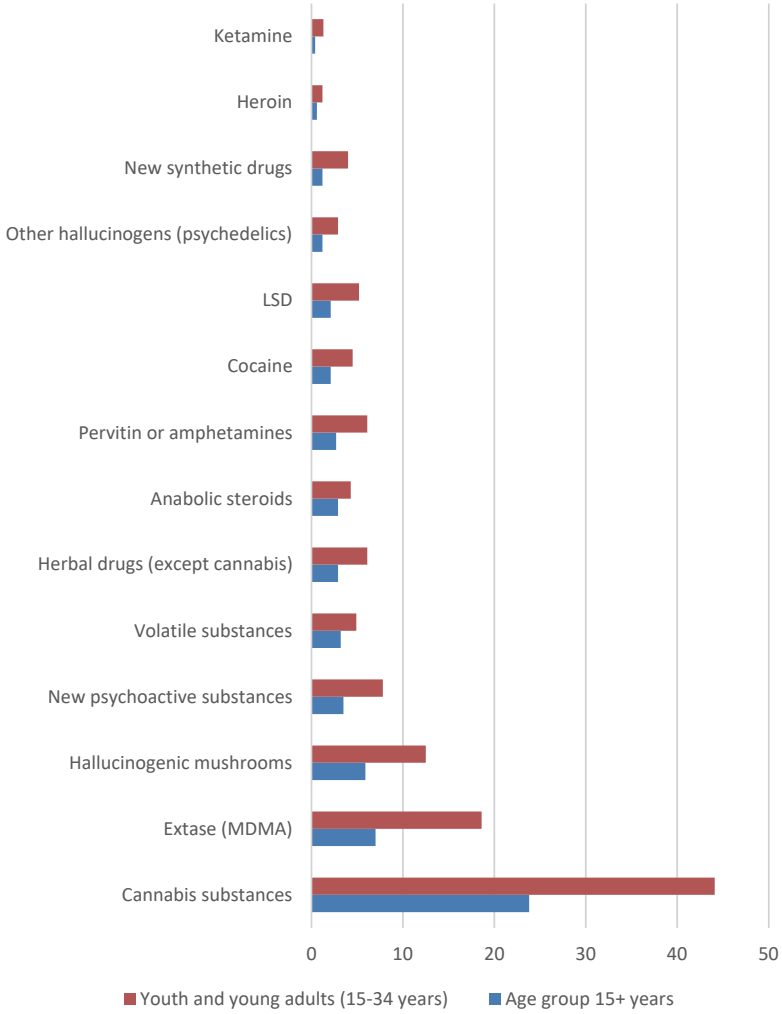

Figure 1: Prevalence of illegal substance use in the general population (Mravčík 2022b)

The situation of substance use in the Czech population is monitored through a number of studies, whether they are repeated at regular intervals or in irregular or one-off studies. Thus, data can be obtained from many sources, of which the State Institute of Health (SZU), the Institute of Health Information and Statistics of the Czech Republic (IHIS CR) and the National Monitoring Centre for Drugs and Addiction, which conducts a population-wide study at four-year intervals on a randomly selected representative sample of the population aged 15+, focusing directly on substance use, gambling, mental health and (risky) sexual behaviour, are of major importance.

Different addictive substances have different levels of health and social harms associated with their use, both at the individual and population level. However, the perception of the risk of substance abuse is not high in the Czech population. Respondents consider one-time use of cannabis substances and one-time use of ecstasy to be the least risky for physical and mental health (53.0% and 39.8% of respondents consider one-time experience to be risk-free / low risk, respectively). There has been a long-term increase in the share of respondents who perceive the regular consumption of excessive doses of alcohol as very risky (drinking five or more glasses of alcohol on one occasion every weekend) and a slight decrease in the share of respondents who consider experimenting with cannabis substances or ecstasy as risky. Perceptions of the riskiness of other addictive substances remained the same between 2016 and 2020 (Mravčík 2022a).

1.1 Social and health risks associated with substance use

Analysing the harm caused by addictive substances is not easy and the methodology is widely debated (Nutt et al. 2010; Communities and Local Government 2009; Nutt et al. 2007; Murphy 2007; Best et al. 2003; Rhodes 2009; Van Amsterdam et al. 2010). Negative impacts depend on the type of substances used, how they are administered, who uses them and in what settings. (Grolmus 2020). A number of approaches and available tools can be used to assess harm, such as the standard epidemiological indicators established by The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). The criteria for harm can be clearly displayed according to the categorisation used in the study "Drug harms in the UK" (Nutt et al. 2010). The diagram shows that harm is caused both to the user and to those around them in three domains: psychological, physical and social. Thus, when assessing the harmfulness of an addictive substance, it is necessary to consider all these dimensions, i. e. all 16 criteria of harm that a substance can cause in total. The authors of the study conclude that alcohol is the most problematic substance in terms of overall harm, followed by heroin. Heroin is also the most harmful substance to the user, while alcohol is the most harmful substance to others around the user.

This study, along with the study conducted by van Amsterdam (Van Amsterdam et al. 2010), is significant in that it assesses the harmfulness of drugs based on both physical harmfulness, addictive power, and social harmfulness at the individual level as well as social harmfulness at the population level. This is because studies typically focus on only one type of harm, e. g. drug-related disease and drug dependence (Hall et al. 1999), drug addiction (Anthony et al. 1997), effective dose-to-lethality ratios (Gable 2004), and drug toxicity profiles (Goldstein and Kalant 1990).

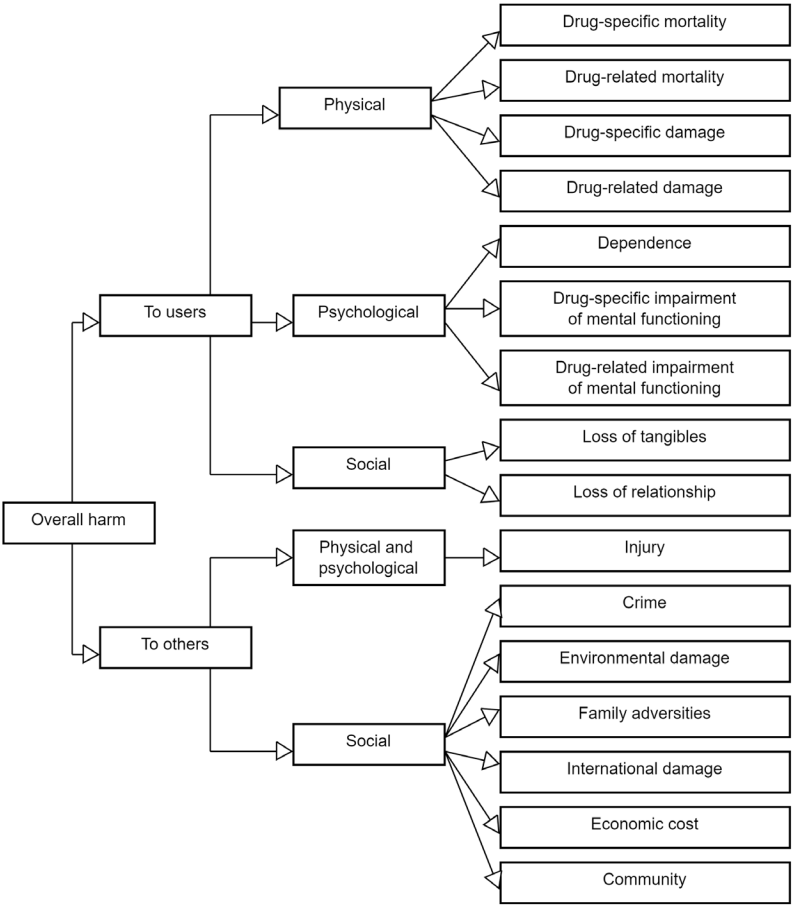

Figure 2: Harm caused by substance use (Nutt et al. 2010)[4]

[4] Drug-specific mortality (intrinsic lethality of a drug expressed as the ratio of the lethal dose to the standard dose.
Drug-related mortality (a measure of life shortened by the use of a drug, e. g. traffic accidents, lung cancer, HIV, suicide – does not include drug-specific mortality).
Drug-related harm (drug-specific harm to physical health – e. g. cirrhosis, seizures, strokes, cardiomyopathy, stomach ulcers).
Drug-related damage (drug-induced damage to physical health, including the consequences of, for example, unwanted sexual activity and self-harm, blood-borne viruses, emphysema and cutting injuries).

It is therefore clear that the severity of the harm is determined by factors at the individual level (for the user himself) as well as at the extra-individual (to others) level of the family, the community and society as a whole. Harm can either be direct, i. e. resulting directly from the interaction of the substance with the organism, or indirect, resulting from other factors. Indirect consequences may arise from intoxication by a foreign substance (i. e. intoxication by unintended substances in drug doses), as a consequence of the method of application, as a consequence of socio-economic conditions or as a consequence of the context in which the person under the influence of the psychotropic substance is located (e. g. traffic and other accidents in which the active participants were under the influence of the psychotropic substance) (Zábranský 2003). In

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Addiction (the extent to which a drug produces a propensity or compulsion to continue use despite adverse consequences – ICD 10 or DSM IV).
Drug-specific mental disorder (e. g. amphetamine-induced psychosis, ketamine intoxication).
Drug-related mental impairment (drug-related mental impairment – e. g. mood disorders secondary to the drug user's lifestyle or drug use).
Loss of tangible assets (extent of loss of tangible assets, e. g. income, housing, employment, educational attainment, criminal record, incarceration).
Loss of relationships (extent of loss of relationships with family and friends).
Injury (the extent to which drug use increases the potential for direct and indirect injury to others – e. g. violence including domestic violence, road traffic accidents, foetal harm, drug waste, secondary transmission of blood borne viruses).
Crime (the extent to which drug use involves or leads to an increase in the volume of acquisitive crime beyond drug use, either directly or indirectly).
Environmental damage (the extent to which drug use and production causes local environmental damage – e. g. toxic waste from amphetamine factories, discarded needles).
Family adversity (the extent to which drug use causes family adversity – e. g. family breakdown, economic well-being, emotional well-being, children's future prospects, child neglect).
International harm (the extent to which drug use in the UK contributes to international harm – e. g. deforestation, destabilisation of countries, international crime, new markets).
Economic costs (the extent to which drug use imposes direct costs on the country, e. g. health care, police, prisons, social services, customs, insurance, crime, and indirect costs, e. g. lost productivity, absenteeism).
Community (the extent to which drug use causes a decline in social cohesion and a deterioration in the reputation of the community).

their assessment, variables such as age, gender, physical and mental health, biological influences, socioeconomic and family factors, as well as specific factors such as belonging to a minority group, whether ethnic, religious or sexual, should be taken into account, as there is an assumption that members of these minorities may be more susceptible to substance abuse (Grolmus 2020).

Even in the context of other types of risk behaviours, substance abuse can be considered high-risk according to the Global Burden of Disease Study (Gakidou 2017). This study presents a comprehensive approach to quantifying risk factors, including behavioural (where the substance abuse we are studying belongs), environmental (polluted water, poor sanitation, air pollution, etc.) and occupational risks (carcinogens in the work environment, occupational injuries, etc.). The study estimates levels and trends in exposure, deaths and disability-adjusted life years (DALYs) by age group, sex, and year. According to these estimates, globally, tobacco abuse represents the fourth highest risk after child and maternal malnutrition, diet-related risks and high systolic blood pressure. Alcohol and drug use was rated as the eighth highest risk globally. In addition to the factors mentioned above, only air pollution, high fasting plasma glucose and high body mass index were considered to be riskier than substance abuse. Cumulatively, according to this study, substance use accounts for 28.5% of the global health burden measured in DALYs (Disability-Adjusted Life Years), i. e. years of life lost due to morbidity and mortality explained by the risk factors studied. The most important risks associated with tobacco use are considered to be the development of the following diseases: tuberculosis, lower respiratory tract infections and other common infectious diseases, neoplasms, cardiovascular diseases, chronic respiratory diseases, digestive diseases, diabetes, urogenital, blood and endocrine diseases, musculoskeletal disorders, road traffic injuries and unintentional injuries. Alcohol and drug abuse is then globally associated with diseases such as HIV/AIDS and tuberculosis, diarrhoea, lower

respiratory tract infections and other common infectious diseases, neoplasms, cardiovascular diseases, and chronic respiratory diseases, cirrhosis and other chronic liver diseases, digestive diseases, mental and substance use disorders, neurological disorders, diabetes, genitourinary, blood and endocrine diseases, traffic injuries, unintentional injuries, self-harm and interpersonal violence. In developed countries with high socio-economic standards, tobacco use is considered the highest risk and alcohol and drug abuse is ranked as the fifth highest risk factor for these diseases.

From a public health perspective, smoking has the highest impact on mortality and morbidity of all abuses, both in the Czech environment and worldwide. Together with low physical activity, it is the main cause of mortality and morbidity. The impact is not only on the smoker, but also on their surroundings. Passive smoking is responsible for approximately 13% of the health burden caused by smoking (Chomynová 2022). The risks associated with alcohol consumption are similar. Alcohol consumption, especially the consumption of large quantities of alcohol, contributes to the global burden of disease, as it is a necessary underlying cause of more than 30 diseases and contributes to many more, and, in addition, alcohol consumption can also affect the health of others and cause social harm to both the drinker and others (Rehm 2011). Alcohol is associated with domestic violence (estimated to be involved in up to two-thirds of all cases of domestic violence) (Nešpor and Csémy 2005). In terms of social risks, alcohol abuse, together with illegal drugs, appears to be highly problematic. For people who use drugs at risk, there is often an accumulation of negative social and economic factors – in particular, housing problems, financial problems (frequent debt traps), unemployment or unstable and informal employment, and damage to family relationships. The unstable housing and debt situation of people at risk of drug use makes recovery impossible and they represent a significant barrier to social and economic integration and often an intractable problem (Chomynová 2022).

Table 1 documents the deaths caused annually by substance use in the Czech Republic. It can be seen that the largest number of people, 16,000–18,000, die as a result of smoking, most often due to malignant neoplasms of the trachea, bronchi and lungs, or chronic obstructive pulmonary disease, and for every smoker who dies, 15 years of life are lost. Smokers die on average 15 years earlier than non-smokers. The positive news is that the trend in recent years has been towards the use of electronic cigarettes, vaporizers and heated tobacco products, i. e. products that are less risky from a health point of view than cigarettes, cigars and pipes (Chomynová 2022). In contrast, the proportion of people showing signs of risky and harmful drinking is increasing in the Czech Republic over the long term. Annually, 6,000–7,000 people die in connection with alcohol consumption, of which 2,000 deaths are directly attributable to alcohol (e. g. deaths from alcoholic liver disease or alcohol intoxication). Another 600 cases per year are indirect deaths, i. e. deaths due to alcohol-related accidents or suicides. Between 200 and 250 people die every year from direct alcohol overdose. Alcohol addicts die on average 24 years earlier than the general population. Around 40–60 people die annually as a direct result of an overdose of illegal drugs. Another 100–150 deaths from illegal drugs are reported annually due to illness, accident, injury or suicide. The risk associated with drug use has long been linked to the prevalence of viral hepatitis C in the population. Although its prevalence has been stable over the long term, it is the most prevalent infection among drug users and places a burden on the health system.

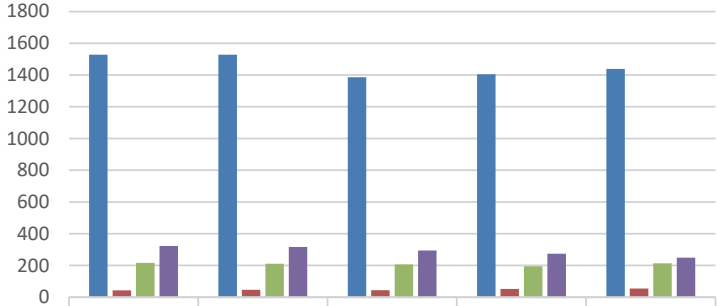
Table 1: Annual deaths caused by substance use in the Czech Republic (Chomynová 2022)

Addictive behaviour	Deaths related to substance use	
	Total	Direct (overdose)
Tobacco, nicotine and related products	16,000–18,000	
Alcohol consumption	6,000–7,000	200–250
Use of psychoactive drugs	110–120	40–50
Use of illegal drugs	100–150	40–60

Suicide is a specific category of substance-impaired deaths. According to the data extracted from the statistical surveys of crime by the Police of the Czech Republic (the "Evidence-Based Statistical System of Crime" (ESSK) operated by a specialised department of the Police Presidium, which is the Department of Substantive Responsibilities and Statistics of the Criminal Police and Investigation Service of the Czech Republic Police) (Police of the Czech Republic 2022), a total of 1,438 suicides (316 women and 1,122 men) were registered in 2021, of which 55 were proven to be under the influence of drugs (49 men and 6 women), 214 under the influence of medicines (116 men and 98 women) and 249 under the influence of alcohol (196 men and 53 women). Table 2 shows the trend in suicide rates over the past five years.

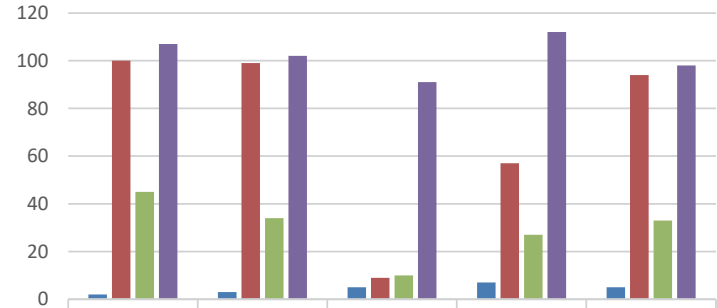
Suicidality as a direct result of substance intoxication is shown in Table 2. Drug intoxication accounts for the largest share of this cause of death, with a male to female ratio of 40 : 54 in 2021. Women are also more likely to die from alcohol intoxication (18 : 15) or a combination of these substances, which occurred in 32 cases, with 17 women and 15 men combining these substances.

When we try to quantify the social costs of substance abuse in terms of financial burden, we find that the costliest is the damage caused by smoking (CZK 80–100 billion), followed by alcohol consumption (CZK 50–60 billion), and the damage caused by illegal drugs represents a package of about CZK 7 billion:



	2017	2018	2019	2020	2021
total	1528	1528	1386	1404	1438
illegal drugs	43	47	44	52	55
medicines	216	211	207	195	214
alcohol	323	317	294	274	249

Figure 3: Trends in substance-impaired suicide rates 2017–2021



	2017	2018	2019	2020	2021
illegal drugs	2	3	5	7	5
medicines	100	99	9	57	94
alcohol	45	34	10	27	33
total	107	102	91	112	98

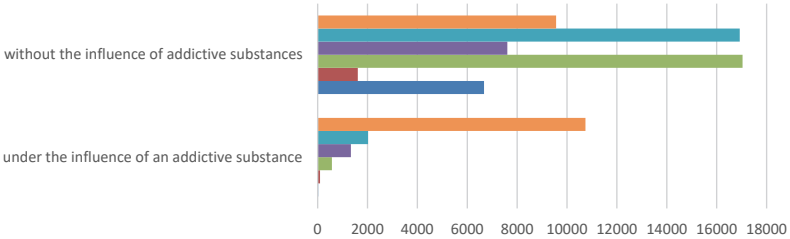
Figure 4: Suicidality as a direct consequence of substance intoxication

a) Health and social care costs.
b) Law enforcement costs.
c) Transaction (operating) costs of the system that redistributes social and health insurance benefits.
d) Costs associated with the workplace (such as alcohol or drug testing in hazardous operations).
e) Prevention, research and education costs.
f) Costs to families (private costs for uncompensated care, legal representation, etc.).
g) Other costs (such as traffic accidents for alcohol and illegal drugs, fires due to tobacco use, etc.) as well as indirect costs (loss of productivity), where we conclude that in the absence of drugs, current users (and their loved ones) would be standard productive members of society; any illness, loss of freedom, reduced economic performance, etc.

Zero economic performance (in the case of death) is then treated as a (societal) loss of productivity (Zábranský 2003).

Substance abuse also has a significant impact on crime. In the context of this phenomenon, we talk about both primary crime (e. g. possession, production, sale, etc. of illegal drugs) and secondary crime (crimes committed in any context with or under the influence of addictive substances). According to the data of the Police of the Czech Republic, in 2021 a total of 13,810 crimes were committed under the influence of addictive substances, i. e. 19.47% of the total number of crimes in that year. The remaining crimes include, among others, the crimes of negligent traffic accidents (§ 143, 147, 148, 273, 274, 277, 360) and endangerment under the influence of an addictive substance, drunkenness (§ 274, 360). The category of other crimes includes the offences of rioting (§ 358, 359), damage to foreign property – spraying (§ 228/2), illegal production and other disposal of narcotic and psychotropic substances and poisons for another (§ 283), possession of narcotic and psychotropic substanc-

es and poisons for oneself (§ 284) and trafficking and possession – sharecropping (§ 214, 215).



	under the influence of an addictive substance	without the influence of addictive substances
remaining crime	10740	9564
other crime	2023	16924
violent crime	1334	7607
property crime	574	17037
vice crime	97	1611
economic crime	22	6673

Figure 5: Substance-impaired crime

The addictive substance that contributes most to crime is alcohol. It was identified in a total of 9,437 offenders (8,381 men and 1,056 women). In this respect, the second most problematic drug is methamphetamine, which was identified in 1,828 offenders. The third most problematic substance in terms of offending is cannabis, the influence of which was identified in a total of 617 offenders in 2021. Specifically for negligent road traffic accidents (§ 143, 147, 148, 273, 274, 277, 360), alcohol was involved in a total of 2,557 cases in 2021. In a total of 29 cases, a combination of alcohol and another drug was noted, 94 cases had methamphetamine (meth) present, 13 cases had cannabis, and 22 cases had a combination of multiple drugs identified.

1.2 Substance abuse in Europe and the Czech Republic

According to the World Health Organization (WHO 2019), the average alcohol consumption per person in Europe is 11.3 litres of pure alcohol, of which 9.9 litres is declared alcohol and 1.4 litres is undeclared alcohol, equivalent to an average of more than 170 grams of alcohol per week. On average, men consumed 18.3 litres of pure alcohol and women 4.7 litres, almost four times less than men. At the same time, the WHO notes that 5.5% of all deaths in the EU+ are caused by alcohol and alcohol trends clearly influence overall mortality trends. If deaths directly caused by alcohol fall, alcohol-related deaths will inevitably fall, even if alcohol consumption remains unchanged. There is a wide variation in the level of alcohol consumption between EU+ countries. Lower consumption is characteristic of the northern and southern parts of the EU+ (lowest per capita consumption in Norway and Italy with 7.5 litres per adult), with the highest consumption in the central belt of Europe from Ireland to Romania in the south-east and the Baltic countries in the north-east. While average alcohol consumption in all northern parts of Europe and most southern European countries is decreasing over time, average alcohol consumption in the middle belt is increasing.

The prevalence of smoking is also high. According to Eurostat data (Eurostat 2021), 18.4% of the EU population aged 15 and over smokes cigarettes daily. In fact, 12.6% of the EU population consumed less than 20 cigarettes per day, while 5.9% consumed 20 or more cigarettes per day. There are more male smokers than female smokers (22.3% of males and 14.8% of females aged 15 and over smoke cigarettes daily). Within the EU Member States, the countries with the highest share of daily cigarette smokers were Bulgaria (28.7%), Greece (23.6%), Latvia (22.1%), Germany (21.9%) and Croatia (21.8%). In contrast, the countries with the lowest proportion of

daily smokers were Sweden (6.4%), Finland (9.9%), Luxembourg (10.5%), Portugal (11.5%) and Denmark (11.7%).

Some 83 million (28.9%) adults (aged 15–64) in Europe have experience with illegal drug use, with men (50.6 million) more likely to report experience of drug use than women (32.8 million). According to the European Monitoring Centre for Drugs and Drug Addiction (2021), cannabis is the most commonly used drug – the prevalence of use is approximately five times higher than for other substances. The number of cannabis users among the EU population aged 15–34 is 15.4%, ranging from 3.4%. Around 1.8% of adults aged 15–64 use cannabis daily or almost daily, having used the drug on 20 or more days in the last month. The lifetime prevalence of cannabis use is highest in France (45%) and lowest in Malta (4%). Cocaine is then the second most commonly used illegal drug in Europe and consumer demand (213 tonnes of the drug seized in 2019) makes it a lucrative part of the European drug trade for criminals. Amphetamine is the second most used stimulant in Europe after cocaine. National prevalence estimates range from 0 per cent in Portugal to 4.1 per cent in the Netherlands. Methamphetamine use in Europe has historically been limited to the Czech Republic and more recently Slovakia, where it accounts for a large proportion of drug-related harm. Demand for the drug remains relatively low in Europe, but changes in production and trafficking point to a risk of increased consumption. Most of the methamphetamine available is produced domestically, with some coming from the Netherlands, Belgium and Poland.

In the Czech Republic, annual alcohol consumption is equivalent to 10 litres of pure alcohol per person, with 12% of the population reporting frequent heavy drinking. An estimated 1.5–1.7 million adults are in the category of hazardous drinking, of whom 800,000–900,000 fall into the category of harmful drinking. Approximately 10% of the adult population drinks alcohol daily and the proportion of daily drinkers has been increasing over the long

term. This trend is linked to the age of the consumers. While frequent heavy drinking is highest among young adults and decreases with age, daily alcohol consumption increases with age.

On a positive note, according to the findings of the Czech Republic's Addictions Summary Report 2021 (Chomynová 2022), the proportion of smokers in the adult population, including the proportion of smokers among adolescents, was declining slightly in the Czech Republic until 2015. In recent years, the overall share has not changed substantially. Approximately 20% of the population over 15 years of age (about 2 million people) smoke daily. A total of 23 billion cigarettes are consumed annually in the Czech Republic, equivalent to about 2,000 cigarettes per capita.

Drug dependence is particularly relevant to the use of anxiolytics (anxiety-reducing drugs), hypnotics (sleeping pills) and sedatives (tranquillisers), which, by their nature, have a positive effect on mood and remove or alleviate anxiety, mental tension or fear, or are used for anxiety-related sleep disorders. On the other hand, the abuse of stimulants, which are used to treat hyperactivity and attention deficit disorders, can also lead to dependence on a group of drugs that reduce the perception of pain (analgesics). In this context, we also speak of drug abuse, which is the use of a drug with or without a prescription, but apparently outside accepted medical procedures or guidelines, for recreational purposes or as part of self-medication, where the risks and problems associated with use outweigh the benefits (Mravčík 2021). The number of people abusing sedatives and hypnotics in the Czech Republic is currently estimated at about 900,000. Of these, the largest share is abusers of alprazolam (e. g. Neurol®), approximately 270,000 persons, and zolpidem (e. g. Stilnox®), approximately 190,000 persons (Leštinová 2019). The problematic use of mainly opioid analgesics, sedatives and hypnotics has long been a hidden and unaddressed problem. No awareness-raising or other activities are implemented among prescribers or patients.

The most commonly used illegal drug in the Czech Republic, experienced by approximately one-quarter to one-third of adults in the Czech Republic, is cannabis, as is the case throughout Europe. Approximately 8–10% of adults report current cannabis use. The risk group is mainly men in the younger age groups. In the last year, 5–10% of the adult population, i. e. an estimated 400,000–900,000 people, used cannabis for self-medication, and an estimated 200,000 people used it exclusively for self-medication. Daily cannabis users are estimated at 30,000. Approximately 400,000 people are at risk from cannabis use, of whom half (200,000) are at high risk.

The burden on society from other illegal drugs is much lower. Experience with ecstasy is reported by 5–7% of adults, with hallucinogens by 4–6% and with methamphetamine as well as cocaine by 2–4% of adults. An estimated 44,000 people use drugs at risk, most commonly methamphetamine (33,000) or opioids (11,000). Approximately 42,000 people inject illegal drugs.

The most recent data on the prevalence of addictive behaviour in the Czech population is reported in the Summary Report on Addictions in the Czech Republic 2021 (Chomynová 2022). The data according to this report are summarised in Table 3.

1.3 Substance abuse and the problem of validity and reliability in measurement

This book publishes the results of two cross-sectional multidisciplinary and cross-sectional (Bryman 2012, pp. 58–63) research investigations. The first one was carried out in the period before the Covid-19 pandemic (2018–2019 collection) and the second, already international Czech-Slovak, in the period of the pandemic (2020–2021 collection). The interdisciplinary team in the Department of Christian Social Work of the Sts Cyril and Methodius Theo-

Table 2: Prevalence of addictive behaviour in the Czech population (Chomynová 2022)

Addictive behaviour	Adult population	Children and adolescents
Smokers	17–23% of the population aged 15+, i. e. 1.5–2.1 million people	10–11% of 13- to 16-year-olds report regular or daily tobacco smoking
Alcohol consumers	10% of people aged 15+, i. e. 800,000–980,000 people, drink alcohol daily or almost daily 17–19% of people, i. e. 1.5–1.7 million people, drink at risk, 9–10% of the population (800,000–900,000 people) fall into the harmful drinking category	17% of 11-year-olds, 43% of 13-year-olds, 76% of 15-year-olds and 95% of 16-year-olds have drunk alcohol at some point in their lives, about half of them reported drinking alcohol in the last 30 days 39% of 16-year-olds had drunk excessive amounts of alcohol (i. e. 5 or more drinks of alcohol on one occasion) in the last 30 days, 12% once a week or more
Abuse of psychoactive drugs	14–15% of adults, an estimated 1.25–1.45 million people, fall into the problem category consumption of psychoactive drugs	24% of 16-year-olds have used an illegal drug in the last 12 months, 23% have used cannabis substances, 3.5% over-the-counter sedatives, 3.3% volatile substances, 2.6% ecstasy, 1.1% hallucinogenic mushrooms, 1.9% LSD or other hallucinogens 1% cocaine or methamphetamine
Cannabis	8–10% of people aged 15+, an estimated 800,000–900,000 adults, have used in the last 12 months, approximately 207,000 adults fall into the high-risk category of developing problems associated with the use of cannabis substances 5–10% of the adult population has used cannabis substances for self-medication in the last 12 months, i. e. an estimated 400,000–900,000 people	
Illegal addictive substances	1% of adults have used ecstasy at some point in the last 12 months, 1.5% hallucinogenic mushrooms, less than 1% meth (or amphetamines) and cocaine 44,200 people use methamphetamine or opioids at risk 33,100 use methamphetamine at risk, 6,400 buprenorphine, 3,300 heroin 1,4000 other opioids	

logical Faculty of Palacký University in Olomouc is conducting the entire research in the Czech Republic. The results published in this book represent a small cross-section of the results and analyses from the surveys conducted in both 2018 and 2020. For the analysis of the data on addictions in 2018, only indicative variables mapping the prevalence of the threat in households were used. Following the evaluation of the 2018 collection, the measurement tool was modified and expanded for the 2020 collection, using variables indicating the threat to addiction, the extent of this threat in relation to health, economic situation, social relations in the community and family relations, as well as variables supplementing information on the frequency and intensity of abusive behaviours for the analysis. These variables act as dependent variables in relation to sociodemographic factors and as independent variables in relation to values.

The measurement was conducted through an online research tool developed within the Social Survey Project platform (Pospíšil 2018). Respondents were approached randomly within a stratified proportional sampling frame so that the resulting population sample was representative in terms of age, gender and size of municipalities for the Czech Republic. In cases where for serious reasons it was not possible for the respondent to complete the questionnaire in person (usually due to health, lower technical ability, etc.), the questionnaire was completed by an assisted researcher with the consent of the respondent. Due to the heavily anonymised technical design of the data collection, it was not possible to ascertain the return rate of the questionnaires, as records of initiated and incomplete questionnaires could not be kept without the respondent's consent. In this case, the authors of the survey preferred the anonymity of the survey over additional statistical data due to the nature of the data being measured. The processing of the research data was conducted in accordance with the Manual of Quantitative Research of the Department of Christian Social Work of the Sts Cyril and Methodius Faculty of Theology of Palacký University in

Olomouc. The handling of research data was approved by the Ethics Committee of the same department, protocol No. 2/2021 and 3/2021.

The research population was constructed to achieve representativeness in terms of age, gender and size of the community. For the purpose of detailed sociodemographic analysis of the research population, respondents were asked about a number of clarifying characteristics in addition to age and gender. This included a) the region in which the respondent lives; b) the size of the municipality (population) where they live; c) their employment status; d) field of work or study; e) highest level of education; f) family situation; g) housing situation; h) household financial situation. The present book presents the results of only selected relationships in terms of their highest relevance to the issue under study. A more detailed analysis of a wide range of relationships is planned for data collection conducted in 2022–2023.

When measuring substance abuse, reliability and validity are difficult to achieve and ensure. The results of validity and reliability of abstinence measurement can be assessed by comparison with similar research, which this book consistently accomplishes. In particular, the fact that the data are consistent with research conducted by the National Monitoring Centre for Drugs and Addiction speaks in favour of arguments about the validity and reliability of the results. It can be reasonably assumed that substance abuse rates are underestimated in our measurements, as it is also clear from the responses of respondents that admitting (albeit anonymously) to substance abuse is not easy. Therefore, a positive feature of our research is the general consistency of our results with other measurements of substance use in the Czech Republic.

The discrepancy in results was expected in the 2018–2019 measurement, as this pilot measurement was not primarily focused on abusive use itself, but on feelings of threat in the broadest context. The measure of perceived threat was consistent with research on the prevalence of addictive behaviours in the adult population ac-

cording to Chomynová (Chomynová 2022) in the category of threat from abusing tobacco, nicotine and related products and in the category of threat from alcohol. In contrast, the risk was strongly underestimated in the case of addiction to drugs and illegal addictive substances. Given the different method of measuring the perceived threat of these types of addictive substances, which is based on a different theoretical discourse of research, it is clear that the outcome could not have been similar. While population-wide prevention programmes do a good job of communicating the risks associated with tobacco and alcohol use, and this risk is clearly and explicitly articulated, prevention and promotion of potential harms lags behind in the case of medicines and pharmaceuticals. Thus, due to dysfunctional prevention programmes in the area of drug and medicine misuse, there may be a strong underestimation of risk and a low attribution of importance to potential risks. The findings can therefore be considered valid and the method of measurement used justified. Regarding the subjective perceived sense of threat from illegal drugs, it is also evident from the Report on Illegal Drugs in the Czech Republic (Mravčík 2022b) that the risk is underestimated by users, especially in the case of experimental use.

1.4 Perception and reflection on the risks associated with substance use

The Organisation for Economic Co-operation and Development (OECD 2019) is conducting a study to gauge people's perceptions of social and economic threats in its 21 (out of 36) member countries. The survey, conducted for the first time in two waves in spring and autumn 2018, is based on a representative sample of 22,000 respondents aged 18 to 70 in 21 OECD countries: Austria, Belgium, Canada, Chile, Denmark, Estonia, Finland, France, Germany, Greece, Israel, Ireland, Italy, Lithuania, Mexico, the Netherlands, Norway, Poland, Portugal, Slovenia and the United States.

The Czech Republic is not involved in any of these collections. Respondents are asked about their social and economic problems, how well they think the government is responding to their needs and expectations, and what policies they would like to see in the future. The study was repeated in 2020 (OECD 2021). The methodology of the questionnaire is based on the identification of subjective threat perceptions through closed-ended questions. However, threats from addictive substances are not included in the questionnaire at all.

The Sirius Foundation study (Median and Sirius Foundation 2016) included substance abuse among the risk factors of the identified threats by looking at a total of 21 problem situations, their occurrence, recurrence and resolution. The target population of the research was families with at least one child under the age of 12. The result of the study shows that 4% of Czech families are affected by problems with an adult household member's dependence on alcohol and 2% by an adult household member's dependence on drugs. According to this study, the most common situations that families are exposed to are separation or divorce from a partner (22% of households), academic problems of the child at school (12%), long-term serious behavioural problems of the child in the household (11%), disciplinary problems of the child at school (9%), bullying at school (8%).

Substance abuse is a risk factor for a wide range of areas of human life. The impact can be felt not only in health but also in social, family and economic areas. Numerous analyses (Vearrier 2019; Charlet and Heinz 2017; Freisthler et al. 2020; Makadia et al. 2017) show the extent of these harms caused by abstinence. However, these are analyses of objective damages. In international studies, we can see research that identifies subjective perceptions of the riskiness of smoking (Ganz et al. 2018; Lu et al. 2022; Erinoso et al. 2021; Stroud et al. 2019). Similarly, studies on perceptions of alcohol-related risks show that these risks tend to be underestimated by alcohol users (Wild et al. 2001; Wild and Cunningham 2001).

2 Sociodemographic analysis of substance abuse data in 2020

The research, the results of which we present, was designed as a cross-sectional ex-post-facto study conducted throughout the Czech Republic by means of an online questionnaire from September 2020 to January 2022. The context studied was part of a broader investigation that addresses leisure issues, ICT skills, as well as key worldview issues, social threats and research of values. The investigation examined data collected through a structured questionnaire completed and returned by a total of 6,250 respondents aged 15+ in a representative sample of the Czech population. For respondents who were unable to complete the questionnaire online, face-to-face interviews or assisted completion were used. Due to the method of data collection and the storage of results in the database, we are unable to distinguish between online and paper-based assistance, thus preventing us from testing for differences in data collection methods. However, assisted completion did not exceed 10% of the questionnaires collected. Respondents were selected across the country based on stratification sampling. The basic criteria were gender, age and size of the municipality. Within the stratification groups, the questionnaire was widely and randomly distributed among the population, with over 200 trained volunteers assisting with the distribution of the questionnaires. The data collected can be considered representative in terms of the gender and age of respondents and the size of the municipality – in most stratification criteria, the difference between the population and the samples within the stratification criteria was less than 10%.

Despite this fact, a trimming of the population was done for age and gender representation. Thus, our results work with a total of 3,418 respondents.

Gender was identified using a categorical closed scale consisting of the following categories: male (1,666; 48.74%) and female (1,753; 51.26%).

The age of the respondents was collected by open-ended response. For the purpose of the research, age categories were created according to age stages: youth and young adults – 15–24 years (422; 12.35%); middle adulthood – 25–44 (1,234; 36.10%); older adulthood – 45–59 (941; 27.53%) and old age – 60+ (821; 24.02%). The authors have approached this categorisation with full awareness of the risk of problems arising from such a defined categorisation, especially given the issues with respect to the two youngest age groups. We therefore treat the age categories as demographic groups and do not attempt to interpret the behaviour of these groups within the standard understanding of these groups as sociological categories. The distribution of the research population into categories after five years is shown in Table 3.

Table 3: Age groups (five-year interval)

	n	*f*	*%*	*k*
15–19	202	0.0585	5.85%	202
20–24	239	0.0693	6.93%	441
25–29	330	0.0956	9.56%	771
30–34	228	0.0661	6.61%	999
35–39	356	0.1032	10.32%	1,355
40–44	325	0.0942	9.42%	1,68
45–49	346	0.1003	10.03%	2,026
50–54	273	0.0791	7.91%	2,299
55–59	327	0.0948	9.48%	2,626
60–64	182	0.0527	5.27%	2,808
65+	643	0.1863	18.63%	3,451
Total	**3,451**	**1.0000**	**100.00%**	
Modus	**643**	**65+**		

Respondents' education was collected using a categorical closed-ended scale consisting of the following categories: Primary education (97; 2.84%); Primary but studying in an apprenticeship (25; 0.73%); Primary but studying in secondary school (138; 4.04%); Apprenticeship (634; 18.55%); Apprenticeship in an apprenticeship but studying high school (22; 0.64%); Secondary education (1,118; 32.71%); Secondary education but studying college/university (212; 6.20%); and University education (1,172; 34.29%). For the purpose of the analysis, the education categories were merged by progression (primary education or apprenticeship, secondary education, apprenticeship in a trade, secondary education, university education, university education) or by level of education completed according to the adaptation of the International Standard Classification of Education 2011 categories (levels 1, 2, 3, 6–8) (UNESCO Institute for Statistics 2012): lower secondary or primary only, upper secondary without direct access to tertiary education, upper secondary with direct access to tertiary education, and tertiary education.

The statistical significance of the hypotheses was tested using χ^2 and Pearson's G^2 statistics, respectively, for bivariate ($C \times R$) and trivariate ($C \times R \times L$) contingency tables (Sheskin 2011; Azen and Walker 2011). Adjusted residuals (z) in each cell were calculated to better interpret the results. The degree of statistical dependence is expressed by asterisks in the tables (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$). In the case of the three-dimensional tables, we used two z calculations, one for the contour result (denoted as L) and the other for the three-way result. These variant calculations allow us to extend the interpretation of the results and to discuss more deeply the influence of the layer variable (denoted as Layer in the tables).

2.1 Methodology for measuring substance abuse

From a methodological point of view, the measurement of any deviant behaviour is always burdened by considerable problems in terms of validity and the reliability of the results, as well as from an ethical point of view. Moreover, in the case of reflection on the threat of deviance, we encounter a high degree of subjectivity in the perception of this phenomenon, which is influenced by a large number of factors difficult to capture in a single measurement. Both circumstances on the part of the respondent (i. e. their experience with the type of deviant behaviour and the life situation in which they find themself) and societal circumstances (e. g. targeted prevention of the type of deviance, value orientation of society, etc.) play a role.

An important factor influencing the measurement results in the case of substance abuse as a specific type of deviant behaviour is the considerable number and different nature of substances on which dependence can be built. In the research presented here, these substances are categorised into the following basic groups:

1. Legal addictive substances
   a) Alcohol
   b) Tobacco, nicotine and related products
   c) Drugs and medicinal products
2. Illegal addictive substances

Substance abuse was measured in both collections of the present research by simple binomial questioning on substance use. Factorial binomial variables were thus created. In 2018, the measurement was aimed at identifying threats in a broader sense, i. e. in the context of the respondent's immediate social environment. In the subsequent measurement in 2020, the questions were reformulated to target abusers, with a threat measured only on secondary scales.

Therefore, the results of the two measurements are not directly comparable to each other, and no statistical shift in the prevalence of threat/addictive behaviours with the onset of the Covid-19 pandemic can be observed.

In identifying potential substance abuse for each substance, key questions were formulated according to the following principles, which were followed and considered in the measurement:

1. A sensitivity approach (Bryman 2012, p. 494) to measurement so as not to place undue emotional burden on respondents affected by abstinence. Yet, during measurement, there may have been instances where respondents were confronted with their own life situation, which they often displaced or refused to address. This confrontation may have resulted in premature termination of the recording, which cannot be traced in the context of preserving anonymity (including erasure of the measurement time track).
2. Emphasis on the ethical aspects of measurement, in particular:
   a) informed consent to participate in the research – each respondent consented to participate in the research, and details of the purpose of the research were provided to them prior to the start of the questionnaire. Once the final questionnaire form was completed, it was only possible to send data to the research based on the respondent's explicit consent (Miller 2007);
   b) anonymity – respondents completed the questionnaire at their own consent, anonymously, alone and in private. The exception was when, for serious reasons, the respondent was unable to complete the online questionnaire and responses were recorded with the assistance of the researcher. The researchers were instructed on the ethical principles of such assisted recording and considered the data collected to be strictly confidential.

The following survey questions were used to measure the prevalence of abuse in 2020:

a) Do you drink or have you been drinking alcohol heavily or very frequently (daily or almost daily)?
b) Have you smoked in the past or do you smoke now?
c) Have you taken or are you taking any medications in greater amounts than the doctor has prescribed or the recommended maximum daily dose?
d) Have you ever used or are you currently using any addictive substance (drug) other than alcohol, tobacco products and medicines?

In the case of the use of a tobacco product, the group of respondents who answered yes to question b) was further restricted by selecting active users. Those who are currently abstinent were excluded for more detailed analyses.

2.2 Alcohol

In our study population, a total of 410 respondents reported alcohol abuse. Of these respondents, males (298) outnumber females (112) and the typical risk group in terms of age and gender can be considered to be middle-aged (z: 2.01*) and older adults (z: 2.00*). In young adulthood, more women than men admit alcohol abuse. This trend changes with age and in the oldest age group it is men who are significantly more likely to declare alcohol abuse. The data are consistent with research carried out by the National Monitoring Centre for Drugs and Addiction, which in its latest report states that a total of 80.1% of the population aged 15+ (88.0% of men and 72.5% of women) have consumed alcohol in the last 12 months. According to the report, the most commonly consumed alcohol in the adult population was beer, followed by wine or champagne and spirits. Men most often reported drinking beer, while women reported

drinking wine (Mravčík 2022a)., The report on alcohol in the Czech Republic also highlights an increase in daily prevalence since 2014, particularly among men, with the largest increase occurring in the 45–54 age group.

Table 4: Alcohol abuse by age and sex

				Youth and young adults	Middle adulthood	Older adulthood	Old age	
Alcohol abuse	Yes	Sex	Male	22	114	91	71	298
				z: −0.27	*z: 2.01**	*z: 2.00**	*z: 1.40*	
				*z(L): −2.15**	*z(L): −0.69*	*z(L): −0.14*	*z(L): 2.52**	
			Female	16	47	35	14	112
				z: −1.02	z: −1.39	*z: −1.27*	*z: −2.22**	
				*z(L): 2.15**	*z(L): 0.69*	*z(L): 0.14*	*z(L): −2.52**	
			Total	38	161	126	85	410
	No		Male	182	486	363	337	1,368
				z: 0.10	*z: −2.08**	*z: −2.26**	*z: −0.92*	
				z(L): 0.81	z(L): −0.15	z(L): −0.63	z(L): 0.19	
			Female	202	587	452	399	1,640
				z: 1.19	z: 1.46	z: 1.53	z: 1.74	
		z(L): −0.81			z(L): 0.15	z(L): 0.63	z(L): −0.19	
			Total	384	1,073	815	736	3,008
Total				**422**	**1,234**	**941**	**821**	**3,418**
$\chi^2_{(df=10)} = 123.9755$; $p_{\chi 2} < 0.001$; $G^2_{(df=10)} = 129.6228$; $p_{G^2} < 0.001$								

The riskiest in terms of education are people with vocational education (z: 4.87***) who have already completed their studies, while the least risky are people with secondary education (z: −2.71**). According to the NAUTA study (Csémy et al. 2021), alcohol consumption is inversely related to education. The group with university education and a high school diploma reported lower consumption than the group with primary education or an apprenticeship. The largest differences are in the younger middle-aged group (i. e. 25–44 years), where the prevalence of harmful drinking is higher among respondents with less education. At older age (65+) these differences then

become blurred. The NAUTA study also sought information on whether and to whom doctors recommend reducing alcohol consumption. Doctors were more likely to recommend limiting drinking to older people and those with less education.

Table 5: Alcohol abuse by educational attainment

		Primary education or apprenticeship	High school students	Vocational training in a specialised field	Secondary education	Undergraduates	University education	
Alcohol abuse	Yes	14	11	112	110	21	142	**410**
		z: –0.18	*z: –2.04**	*z: 4.87****	*z: –2.71***	*z: –0.97*	*z: 0.16*	
	No	108	149	522	1008	191	1030	**3,008**
		z: 0.18	*z: 2.04**	*z: –4.87****	*z: 2.71***	z: 0.97	z: –0.16	
Total		**122**	**160**	**634**	**1,118**	**212**	**1,172**	**3,418**
$\chi^2_{(df=5)} = 29.1325$, $p < 0.001$								

2.3 Tobacco, nicotine and related products

For tobacco, nicotine and related products, in terms of age and gender, we do not observe statistical differences between smokers and non-smokers in our study population. Differences are evident in the strata, with females predominating in middle adulthood, while males predominate in old age. According to the NAUTA study (Csémy et al. 2021), 23.1% of the Czech population was smokers over 15 years of age and three-quarters were daily smokers (16.6% of all respondents), of whom 21.2% were men and 12.2% were women. Most smokers started regular smoking between the ages of 15 and 19 years (61.2%) and the number of smokers declines with increasing age. Women start smoking later than men.

Table 6: Tobacco, nicotine and related products by age and sex

				Youth and young adults	Middle adulthood	Older adulthood	Old age	
Smoker	Yes	**Sex**	Male	68	262	197	225	752
				z: −0.61	*z: 0.51*	*z: 0.38*	*z: 1.79*	
				z(L): −1.38	*z(L): −2.36**	*z(L): 0.24*	*z(L): 3.30***	
			Female	68	247	154	132	601
				z: −0.80	*z: −0.07*	*z: −0.91*	*z: −0.93*	
				z(L): 1.38	*z(L): 2.36**	*z(L): −0.24*	*z(L): −3.30***	
			Total	136	509	351	357	1,353
	No		Male	136	338	257	183	914
				z: 0.53	*z: −0.54*	*z: −0.49*	*z: −1.58*	
				z(L): 1.21	*z(L): 1.59*	*z(L): −0.41*	*z(L): −2.37**	
			Female	150	387	333	281	1,151
				z: 0.87	*z: 0.10*	*z: 1.02*	*z: 0.72*	
				z(L): −1.21	*z(L): −1.59*	*z(L): 0.41*	*z(L): 2.37**	
			Total	286	725	590	464	2,065
	Total			**422**	**1,234**	**941**	**821**	**3,418**
$\chi^2_{(df=10)} = 82.2111$, $p_{\chi 2} < 0.001$, $G^2_{(df=10)} = 81.1948$, $p_{G^2} < 0.001$								

In terms of education, similar to alcohol abuse, people with an apprenticeship are a problem group. On the other hand, high school students and people with a university education are the least risky group. The NAUTA study (Csémy et al. 2021) also considers the same educational group to be problematic. On the other hand, the group of respondents with a high school education is the group that is characterised by the highest abstinence rates of ex-smokers.

Table 7: Tobacco, nicotine and related products by education

		Primary education or apprenticeship	High school students i	Vocational training in the specialized field	Secondary education	Undergraduates	University education	
Smoker	Yes	51	38	322	459	75	408	**1,353**
		z: 0.51	*z: –4.20****	*z: 6.39****	*z: 1.23*	*z: –1.29*	*z: –4.12****	
	No	71	122	312	659	137	764	**2,065**
		z: –0.51	*z: 4.20****	*z: –6.39****	*z: –1.23*	*z: 1.29*	*z: 4.12****	
Total		**122**	**160**	**634**	**1,118**	**212**	**1,172**	**3,418**
$\chi^2_{(df=5)} = 64.0464$, $p < 0.001$								

In its analyses, the NAUTA study (Csémy et al. 2021) also investigates the association between tobacco and alcohol use. Among abstinents, the prevalence of smoking is significantly lower than the population average, according to this study. In the group with harmful alcohol consumption, 45.5% were smokers. Compared to moderate consumers, the smoking rate among men is almost double and among women almost triple. In terms of age, the association of risky and harmful drinking with smoking is strong across a wide range of adulthood, from 25 to 64 years of age. The coexistence of smoking and excessive alcohol intake poses increased health risks. Therefore, we also tested this relationship in our study population and reached similar conclusions. There is a strong statistical relationship between alcohol consumption and smoking ($p < 0.001$). People who drink alcohol heavily or very frequently (daily or almost daily) are significantly more likely to be daily smokers (z: 8.01***).

Table 8: Relationship between alcohol consumption and tobacco, nicotine and related products

Do you or did you use to drink alcohol to a high degree or very often (daily or almost daily)?				
		1	2	Total
		Yes, I have experience with this problem	No, this problem does not concern me and never has	
Please specify how often you smoke?	I'm an abstinent	153	1,934	2,087
		z: –10.27***	z: 10.27***	
	Every day	121	427	548
		z: 8.01***	z: –8.01***	
	More than once a week	19	59	78
		z: 3.43***	z: –3.43***	
	Occasionally (once a week or less)	11	64	75
		z: 0.75	z: –0.75	
	Exceptionally (several times a year)	13	45	58
		z: 2.49*	z: –2.49*	
	I used to smoke in the past	94	511	605
		z: 3.03**	z: –3.03**	
	Total	**411**	**3,040**	**3,451**
		11.91%	**88.09**	**100.00%**
Results of the test ChiSquare: $\chi^2_{(df=5)} = 121.4882$, p = 0.000000, n = 3,451				

2.4 Medicines and medicinal products

No statistically significant differences in drug abstinence were found in terms of age and gender. Indicatively, it can be concluded that men in the oldest age group are the least prone to this type of risk. On the other hand, senior women may be more prone to this risk behaviour. According to Mravčík et al. (Mravčík 2021), the substance-abusing population can be divided into two groups: 1. persons suffering from various types of problems such as pain, insomnia, restlessness, anxiety, affective disorder (depression) and other mental disorders, whose primary motive is to treat these

problems; 2. Persons addicted to addictive substances, including alcohol or illegal drugs, who seek psychoactive medications for their psychoactive effects or to relieve withdrawal symptoms. The State Office for Drug Control (SÚKL), together with Stem/Mark, conducted a survey, which included an audit of pharmacy cabinets in a total of 1,000 households. According to this study, the share of unused medicines in the Czech Republic accounted for at least 3.4% of distributors' supplies, only half of the households take medicines back to pharmacies, one-third throws them in the trash or down the toilet, and people have stocks of unused medicines worth CZK 362 million at home (StemMark 2014).

According to the results of the research presented in the Report on the Problematic Use of Psychoactive Medicines (Mravčík 2021), a total of 15.8% of respondents (10.4% of men and 20.9% of women) used prescription and non-prescription medicines. The use of medications for calming down or insomnia (i. e. sedatives or hypnotics) was reported by 12.6% of respondents (7.3% of men and 17.6% of women), and opioid-based pain relievers were used by 6.8% (5.7% of men and 7.8% of women) – Table 5-1. Among sedatives and hypnotics, respondents most frequently reported Lexaurin (21.1% of those who had used sedatives or hypnotics in the past 12 months), Neurol (20.9%), Diazepam (16.6%), Stilnox (8.6%) and Xanax (6.1%). When extrapolating the results to the entire population of the Czech Republic aged 15+ years, there are an estimated 1.35 million people aged 15+ years in the Czech Republic. There are an estimated 430,000 men and 900,000 women in the 15-year-old population (95% CI: 1.25–1.45 million). Sedatives and hypnotics are used problematically by an estimated 1.1 million persons (95% CI: 1.0–1.2 million), including 310,000 men and 780,000 women, and opioid analgesics are abused by an estimated 550,000 persons (95% CI: 480,000–620,000), including 220,000 men and 330,000 women. Of the opioid-based painkillers, Tramal or Tramadol (40.4%), Dolsin

(12.1%), Doreta (5.6%) and Zaldiar (5.0%) were the most commonly reported by respondents.

Table 9: Medicines and medicinal products by age and sex

				Youth and young adults	Middle adulthood	Older adulthood	Old age	
Abuse of drugs and medicines	Yes	Sex	Male	5	11	13	10	39
				z: 0.00	*z: –0.77*	*z: 0.46*	*z: 0.08*	
				z(L): –0.67	*z(L): 0.33*	*z(L): 0.84*	*z(L): –0.62*	
			Female	8	11	11	14	44
				z: 1.25	*z: –0.93*	*z: –0.18*	*z: 1.02*	
				z(L): 0.67	*z(L): –0.33*	*z(L): –0.84*	*z(L): 0.62*	
			Total	13	22	24	24	83
	No		Male	199	589	441	398	1,627
				z: –0.77	*z: 0.46*	*z: –1.62*	*z: 2.04**	
				z(L): –0.06	*z(L): –0.16*	*z(L): –0.49*	*z(L): 0.75*	
			Female	210	623	476	399	1,708
				z: –0.48	*z: 1.25*	*z: 1.33*	*z: –3.14***	
				z(L): 0.06	*z(L): 0.16*	*z(L): 0.49*	*z(L): –0.75*	
			Total	409	1,212	917	797	3,335
	Total			**422**	**1,234**	**941**	**821**	**3418**
$\chi^2_{(df=10)} = 6{,}0395$, $p_{\chi 2} = 0.8119$, $G^2_{(df=10)} = 5.9011$, $p_{G^2} = 0.8235$								

In terms of education, as with alcohol and tobacco, people with an apprenticeship are problematic. The least problematic are those with a university degree.

Table 10: Medicines and medicinal products by education

		Primary education or apprenticeship	High school students	Vocational training in the specialized field	Secondary education	Undergraduates	University education	
Abuses drugs and medicinal products	Yes	5	6	25	26	5	16	**83**
		z: 1.22	*z: 1.11*	*z: 2.75***	*z: −0.27*	*z: −0.07*	*z: −2.92***	
	No	117	154	609	1092	207	1156	**3,335**
		z: −1.22	*z: −1.11*	*z: −2.75***	z: 0.27	z: 0.07	z: 2.92**	
Total		**122**	**160**	**634**	**1,118**	**212**	**1,172**	**3,418**
$X^2_{(df=5)} = 14.4013$, $p = 0.013251$								

2.5 Illegal addictive substances

In the area of illegal drug abuse, our research population identifies men in young and middle adulthood. In contrast, women in older adulthood and old age belong to the low-risk group. According to research by Mravčík et al. (Mravčík 2022b), a total of 25.4% of respondents aged 15+ years (32.5% of males and 18.6% of females) have used an illegal drug at some point in their lives. The most commonly used illegal drug was cannabis (21.0%), followed by ecstasy (6.5%) and hallucinogenic mushrooms (6.3%), methamphetamine (2.6%) and cocaine (1.7%). Other illegal drugs were used by 1.5% or less of the population. In total, 4.3% of respondents (8.0% of males and 0.8% of females) reported experience with anabolic steroids and 3.5% reported experience with new psychoactive substances

(4.0% of males and 3.0% of females). The prevalence of the use of cannabis substances in the last 12 months and the last 30 days was significantly higher among young adults aged 15–34 years (23.5% and 8.1%, respectively). Experience with illegal drug use was reported more frequently by males in all cases, both at some point in their lifetime and in the last 12 months and the last 30 days. An up to two times higher prevalence compared to the general population aged 15+ and 15–64 years is most common in the 15–24 and 25–34 age groups.

Table 11: Illegal addictive substances by age and sex

				Youth and young adults	Middle adulthood	Older adulthood	Old age	
Abuse of illegal substances	Yes	Sex	Male	32	105	16	10	163
				*z: 2.87***	*z: 4.82****	*z: –1.47*	*z: –1.79*	
				z(L): –1.01	*z(L): 0.93*	*z(L): 0.24*	*z(L): –0.43*	
			Female	20	46	7	6	79
				z: 0.77	*z: 0.09*	*z: –2.42**	*z: –2.32**	
				z(L): 1.01	*z(L): –0.93*	*z(L): –0.24*	*z(L): 0.43*	
			Total	52	151	23	16	242
	No		Male	172	495	438	398	1,503
				*z: –3.15***	*z: –4.93****	*z: 1.05*	*z: 2.55**	
				z(L): –0.34	*z(L): –1.31*	*z(L): 0.28*	*z(L): 1.39*	
			Female	198	588	480	407	1,673
				z: –0.49	*z: 0.02*	*z: 2.84***	*z: 1.56*	
				z(L): 0.34	*z(L): 1.31*	*z(L): –0.28*	*z(L): –1.39*	
			Total	370	1,083	918	805	3,176
	Total			**422**	**1,234**	**941**	**821**	**3,418**
$\chi^2_{(df=10)} = 188.9689$, $p_{\chi 2} < 0.001$, $G^2_{(df=10)} = 182.7375$, $p_{G^2} < 0.001$								

In terms of education, students are at risk, both in secondary and higher education. On the other hand, people who have completed higher education are the least problematic group in this respect. In the ESPAD study (Chomynová et al. 2020), a total of 29.3% of 16-year-old respondents reported experience with an illegal drug.

The most commonly reported non-cannabis illegal drug was ecstasy (3.6%), LSD or other hallucinogens (3.5%) and hallucinogenic mushrooms (2.5%). However, significant differences were observed between students in different types of schools, indicating that the type of school studied plays a large role in the experience of addictive substances. Experiences with cannabis substances and with all non-cannabis drugs studied were lowest among students in grammar schools (including multi-year schools) and highest among students in vocational schools. Despite a long-term decline in the rate of experience with illegal drugs among students, the Czech Republic remains in first place in reported lifetime experience with cannabis use (Mravčík 2022b).

Table 12: Illegal drugs by education

		Primary education or apprenticeship	High school students	Vocational training in the specialized field	Secondary education	Undergraduates	University education	
Abuses illegal addictives	Yes	8	19	43	77	26	69	**242**
		z: –0.23	*z: 2.42**	*z: –0.32*	*z: –0.31*	*z: 3.04***	*z: –1.96**	
	No	114	141	591	1,041	186	1,103	**3,176**
		z: 0.23	*z: –2.42**	*z: 0.32*	*z: 0.31*	*z: –3.04***	*z: 1.96**	
Total		**122**	**160**	**634**	**1,118**	**212**	**1,172**	**3,418**
$\chi^2_{(df=5)} = 16.9852$, $p = 0.004528$								

To summarise the results of our analysis, it seems that in terms of education, the population is divided into two categories. While the tendency to abuse legal drugs tends to be among the apprentices, illegal drugs are the domain of secondary and university students.

The results are in line with research assumptions. While the study period is typical for experimentation with illegal drugs, the tendency to abstain from alcohol and tobacco is among those with less education.

In terms of gender, men tend to abstain more than women. Statistical differences in terms of gender were found for all substances studied except drugs. Indicatively, there is a greater tendency to abstain from drugs among older women.

In terms of age, there is a statistical difference between respondents in the younger and older generations in drug abuse. People in young and middle adulthood are more likely to engage in this risky behaviour. In contrast, smoking is significantly more prevalent in the oldest generation. Alcohol abuse is least represented in the youngest age group, with no significant differences between other age groups. There was no statistically significant difference in drug abuse in terms of age.

3 Reflection on the threat of addictive substances

Measuring social and health threats poses a methodological problem, as they cannot be validly measured by direct questioning. In order to maintain validity and reliability of measurement, the whole complex of these phenomena must be identified and covered by appropriate variables. Therefore, in our research we changed our perspective from measuring the objective occurrence of threats and instead focused on measuring subjective recognition. In the social sciences, the subjective perspective may be more important because the experience of threat often has more influence than objective recognition. In addition, a measure of the subjective perception of social and health threats from the respondent's perspective was used because the identification of these threats is crucial in primary, secondary and tertiary prevention. The following text describes the genesis of our measurement and its results.

3.1 Methodology for measuring the threat to substance use

Threat is a term that is used in many contexts. In general, it can be understood as an imminent and constant danger. However, it can also be perceived as the first phase of a crisis, resulting in increased anxiety, or, conversely, as a consequence of a crisis, when the "psychological threat syndrome" is created, i. e. a precursor to the development of a systemised symptomatology (Vodáčková 2002).

Crisis management defines threat as a degree of risk or threat; it is a term used to determine the magnitude of a hazard, risk, or to describe the effect of a threat (Hruška 2018). The term hazard then refers to a negative phenomenon, event, process, or activity in connection with disaster, damage, limitation, threat, destruction, devastation, liquidation, etc. It defines risk as a phenomenon, event, process, or activity where there is a probability of occurrence and possible consequences. Threat is closely related to risk in the sense of the threatening proximity of a phenomenon, event, process that threatens, limits or destroys specific facts or entities. Thus, we can summarise that a threat can change a safe state through an external or internal hazard to a new state. This danger can be real, which threatens a person's very existence, or perceived, which affects their psychological state. The threat is directed towards the external or internal security of the individual and the human community. The external threat comes from the external environment, i. e. other entities. Within the entity, there can then be conflict situations and conflicts of certain functions (Sak 2018).

In security terminology, threat and risk refer to protected values that are vulnerable. Threat is then expressed in terms of the degree of incomplete assurance of the value's existence. Threats are conditions or activities that can damage or destroy the protected value. Their severity is directly proportional to the nature of the value and how it is valued. Risk, which is derived from a specific threat, expresses the likelihood of its occurrence. In the case of intentional threats, the risk is the product of the actor's ability and motivation, threat and specific value to countermeasures (Janošec 2010).

If we focus our attention on the state of health, which is determined by the combination of various conditions and the way of life, then Act No. 258/2000 Coll. on the protection of public health and on amendments to certain related acts defines a threat to public health as a state *"in which the population or its groups are exposed to a hazard, from which the level of burden of risk factors of natural,*

living or working conditions exceeds a generally acceptable level and poses a significant risk of harm to health".

In the Criminal Code (No. 40/2009 Coll.), general endangerment is defined in Article 272 as "putting people in danger of death or serious bodily injury or other people's property in danger of damage on a large scale by causing a fire or flood or the harmful effect of explosives, gas, electricity or other similarly dangerous substances or forces, or committing other dangerous acts. A person shall also be guilty of general endangerment if he increases or makes it more difficult to avert or mitigate such general endangerment". Section 274 then defines endangerment under the influence of an addictive substance as "committed by a person who, while in a state of incapacitation brought about by the influence of an addictive substance, engages in employment or other activities which may endanger their health, life, or health of other people or cause substantial damage to property".

Threats are usually measured using specific scales depending on defined scales. In the case of diagnosing substance dependence, motivation, opportunity and ability are monitored; see, for example, the COM-B model of addiction (West 2016). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), which acts as a coordinator, has developed indicators of drug use prevalence – a set of standards that facilitate the internationally comparable measurement of the phenomenon. (Hartnoll 2002) The aspects of threat that are examined are expected to meet the following criteria (Trochtová et al. 2021b):

1. The threat/endangerment is described and discussed in the current literature.
2. The threat/endangerment substantially affects the quality of life of the individual or household members.
3. The threat, if realised, manifests itself in a change in the respondent's value orientation.

Perceived threat was measured on a pilot basis using data collection from 2018–2019. The aim of this data collection was to identify the prevalence of existing threats in the Czech population and to test the possibility of analysing the relationship of the threat variable with other dependent and independent variables. In this collection, respondents were asked to consider whether any of the social or health-social threats affected them personally or a person in their household. They were given a list of thirty risk situations/threats and were provided the opportunity to respond on a binomial scale for each. Intentionally, this data collection focused on the prevalence of the threat in the respondent's family or immediate environment. Thus, we obtained a realistic image of the distribution of perceived threats in households in the Czech Republic.

The questionnaire was restructured for the purpose of further collection in 2020–2021. We have now focused only on measurement of the subjective perceived threat of a particular respondent in their specific socio-demographic and value situation. Threat was measured on a four-dimensional scale of key areas of human life: health, family life (relationships with parents, siblings, grandparents, own children and extended family), social (e. g. social status, prestige, relationships in the community, at work, at school, with friends, etc.) and economic (financial). All of these scales were constructed so that they could be analysed independently in relation to underlying socio-demographic factors or other factor variables. The scale is designed as a continuous internally restricted scale from 1 to 10 (Figure 6). One means "low or no threat" and ten means "very high threat". Technically, the measurement was made on a continuous scale with a sensitivity set at 0.1 degree/step to achieve the effect of continuity while maintaining the freedom of respondents to express their attitude.

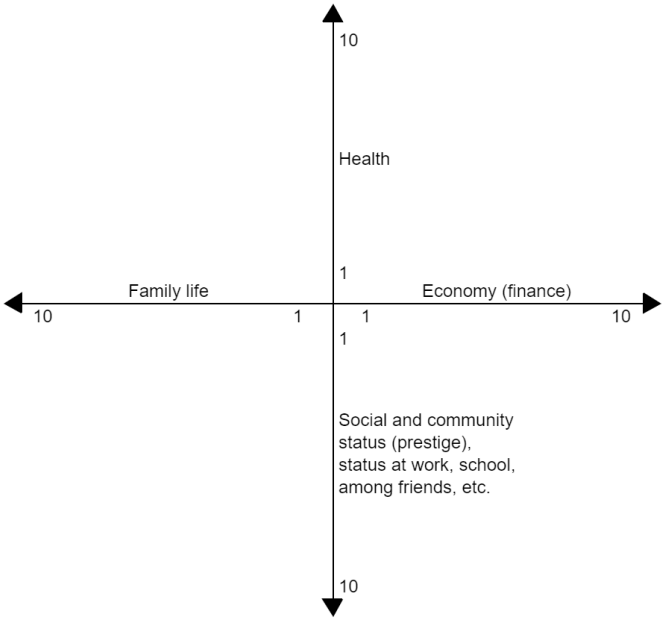


Figure 6: Dimensions of threat

Variables containing dimensions of threat were measured consistently across substance use disorders using a question with four subquestions: how threatened are you by drinking alcohol (or smoking, drug abuse, drug use) in the following areas[5]:

- health
- family life (relationships with parents, siblings, grandparents, own children and extended family)

[5] The following measurement instructions were attached to the scale:
Please indicate your attitude towards this type of threat by marking a comma on the line. Please try to answer truthfully to yourself what your real belief is, how strongly you perceive this threat. On the left there is a low or no threat, on the right a very high threat.

Indicate as such if you perceive low or no threat in this area
Indicate as such if you perceive a very high threat in this area
Indicate as such if you perceive a medium threat in this area
Indicate as such if you perceive a rather higher threat in this area

- social (e. g. social status, prestige, relationships in the community, at work, at school, with friends, etc.)
- economic (financial).

For each dimension, the following mean values (μ) and standard deviations (sd) were found for respondents with abuse:

Table 13: Substance endangerment – summary

Substance	Alcohol (n = 410)		Tobacco, nicotine and related Products (n = 1364)		Medicines and medicinal Products (n = 83)		Illegal addictive substances (n = 242)	
Dimension	μ	sd	μ	sd	μ	sd	μ	sd
Health	4.4	2.97	5.33	3.28	4.6	2.92	3.27	2.8
Family life	4.02	2.99	3.43	2.71	3.45	2.62	3.31	2.85
Community	3.36	2.61	2.9	2.28	3.25	2.33	3.36	2.83
Economic	3.83	2.88	4.42	3.06	3.76	2.76	3.56	2.84

Of all the areas, the threat of legal addictive substances is felt least in the social area and most in the health area. It can be seen that in the health domain, respondents feel most threatened by the abuse of tobacco, nicotine and related products, and conversely, respondents who reported drug abuse feel the least threatened in this domain. The family life area is the most threatened of all substance abusers when abusing alcohol, and the economic area is the most threatened when abusing tobacco, nicotine and related products.

3.2 Pre-research 2018–2019

Measures of reflection on substance endangerment were developed based on the results of a pre-survey in this area conducted in 2018–2019 on a cohort of 5,413 respondents. Data collection took place from October 2018 to June 2019. For the purposes of our analysis, the research sample was trimmed to an age- and gen-

der-representative sample totalling 1,863 respondents. We based the population trimming on data from the Czech Statistical Office (Czech Statistical Office 2019).

Gender was identified using a categorical closed scale consisting of the following categories: male (908; 48.74%) and female (955; 51.26%).

The age of the respondents was collected using an open-ended response, and therefore, for the purpose of the survey, age categories were created according to age stages: youth and young adults, i. e. 15–24 years (236; 12.67%); middle adulthood, i. e. 25–44 years (675; 36.23%); older adulthood, i. e. 45–59 years (506; 27.16%); and old age, i. e. 60+ years (446; 23.94%).

Respondents' education was collected using a categorical closed-ended scale consisting of the following categories: Primary education (80; 4.29%); Primary but studying in an apprenticeship (8; 0.43%); Primary but studying secondary school (55; 2.95%); Apprenticeship (348; 18.68%); Apprenticeship but studying secondary school (18; 0.97%); Secondary education (623; 33.44%); Secondary education but studying college/university (122; 6.55%); and University education (609; 32.69%). For the purpose of analysis, the education categories were merged by progression or level of education completed.

The statistical significance of the hypotheses was tested using the $\chi 2$ statistic for bivariate ($C \times R$) contingency tables (Sheskin 2011; Azen and Walker 2011). Adjusted z residuals in each cell were calculated for better interpretation of the results. The degree of statistical dependence is expressed in the tables by asterisks ($^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$).

Cigarette and tobacco addiction is perceived as the most prevalent threat of all substance addictions. This is followed by alcoholism, illegal drugs and drug abuse. In interpreting the relative frequencies, it should be emphasised that the research methodology was oriented towards threats to households, not individu-

als. Thus, the figures look like an underestimation given the data from the National Monitoring Centre for Drugs and Addictions (Chomynová 2022). Table 14 provides an indicative comparison with these data and a specification of the type of use according to the study being compared. The table shows that while data on cigarettes, tobacco and alcohol are consistent, data on illegal drug abuse and drug dependence are strongly underestimated in our dataset. The underestimation of the data for drug abuse and drug dependence seems logical. As for drugs and medicines, it can be assumed that the riskiness of this behaviour is not felt as much, since prevention programmes target the abuse of illegal drugs, tobacco and alcohol, but not drugs and medicines. Thus, the risk of this behaviour is not in the general awareness of the population. With regard to illegal drug abuse, data from the National Monitoring Centre for Drugs and Addictions include the number of people who have tried an illegal drug once. Such behaviour may not be subjectively perceived as a risk on an individual or collective level.

In line with foreign studies (Gakidou 2017) based on objective measures of threats, in our research set, of all 29 threats analysed, cigarette and tobacco addiction is identified by respondents as the most significant (308; 16.53%). Alcoholism ranked third in the identified threats (267; 14.33%), just after job loss and unemployment. Drug addiction (43; 2.31%) and substance abuse (43; 2.31%) ranked sixteenth and seventeenth. A detailed overview of the threat hierarchy is presented in Figure 7.

A fundamental limitation for the purpose of analysing socio-demographic characteristics was the very aim of the research, according to which data was collected to identify the presence of the threat in households. It is therefore rather unsurprising that the moment we attempted to analyse the relationship with socio-demographic characteristics, the results showed a lack of statistical significance, contradicting all the findings in other studies. For example, in terms of gender, there was no statistically significant dif-

Table 14: Perceived risk of substance dependence

	Collection data 2018			Prevalence of addictive behaviour in the adult population by (Chomynová 2022)	
Please, consider whether any of the following health and social risks affect you personally or a person in your household	No	Yes	Relative threat frequencies	Absolute frequencies	Relative frequencies
Addiction to cigarettes and tobacco products	1,555	308	16.53%	1.5–2.1 million people smoke daily or almost daily cigarettes	17–23% of the population aged 15+
Alcoholism	1,695	168	9.02%	800,000–980,000 people drink alcohol daily or almost daily	10% of people aged 15+
Drug dependence	1,820	43	2.31%	1.25–1.45 million people, falls into the category of problematic consumption of Psychoactive drugs	14–15% of adults
Illegal addictive substances, drug addiction	1820	43	2.31%	800,000–900,000 adults have taken the last cannabis substances in the last 12 months. 44,200 people use methamphetamine or opioids at risk, including 33,100 who use methamphetamine at risk, 6,400 buprenorphine, 3,300 heroin and 1,400 other opioids	27.2% of people aged 15+ Cannabis was the most common substance (23.8%), 8–10% of 15+ year olds have used cannabis in the last cannabis substances in the last 12 months 1% of adults have used ecstasy at some point in the last 12 months, 1.5% hallucinogenic mushrooms, less than 1% meth (or amphetamines) and cocaine

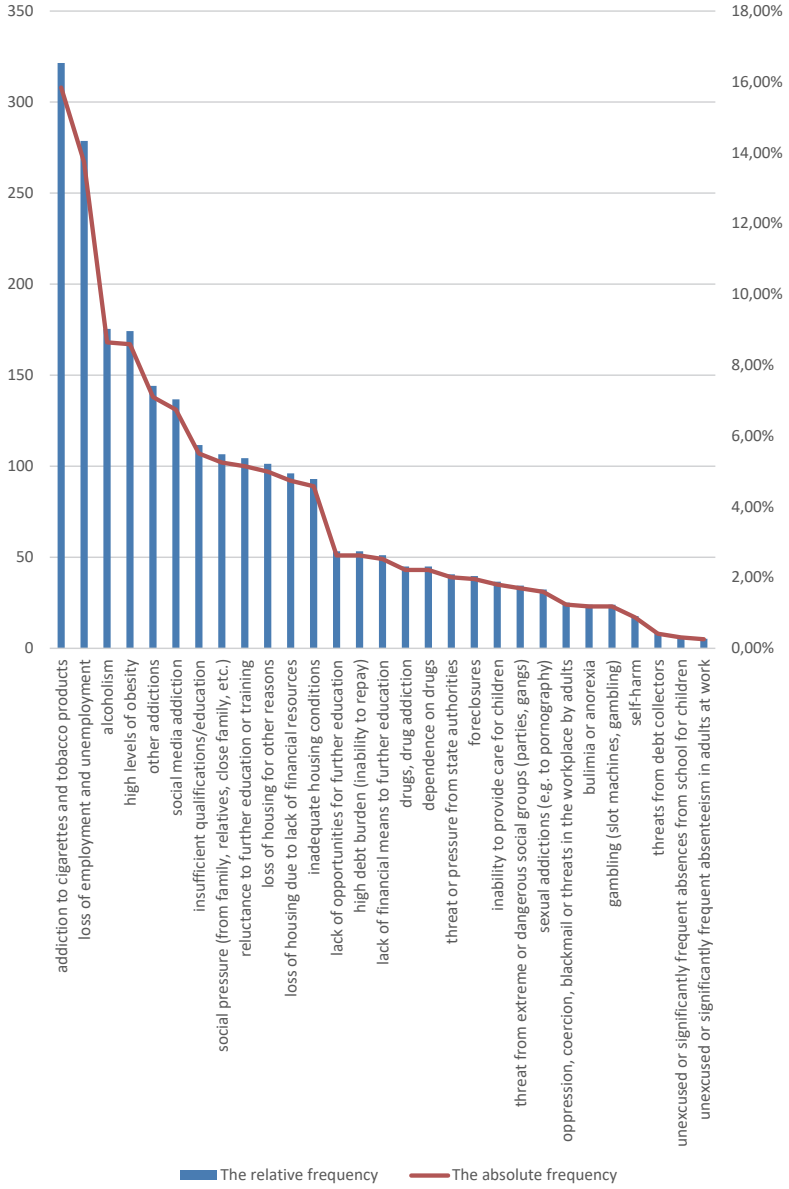


Figure 7: Threat reflection

ference in individual substance abuse risk. The outcome of the test is influenced by the way the question is asked, which asks about perceived threat at both the individual and collective level. If one of the partners is threatened at the individual level, the other partner is threatened at the collective level. This aspect also translates into possible interpretations of other socio-demographic characteristics. In terms of age, the only group that is indicative of perceived threat is the elderly group, in the case of drug withdrawal. In contrast, this group seems to feel least threatened by other addictive substances. It should be noted that statistical significance ($p = 0.007059$) was demonstrated only in the case of tobacco abuse. In terms of education, people with a university education appear to be the least threatened group. Statistical significance was demonstrated only for tobacco ($p = 0.016569$) and drug abuse ($p = 0.000135$). This was one of the main arguments that led us to restructure the measurement to the individual level only.

In the analysis of household exposure to substance abuse, we took into account two variables, namely the family situation of the household and the economic situation index. The analysis is based on the assumption that there is an association between the feeling of threat and the type of household, both in terms of the number of household members and their relationships with each other and in terms of the socioeconomic situation. We were inspired by the results of research by the Sirius Foundation (Median and Sirius Foundation 2016), which shows that the alcohol dependence of an adult household member, physical and psychological violence between adult members, and academic achievement problems were significantly more likely to be experienced in families where the child lives with one biological parent (with or without a partner) compared to families with both biological parents. According to this research, alcoholism is also a frequent problem in new partnerships. Comparisons with the general population show that threat is also related to household economic instability. The authors of

the research point out that almost half (49%) of at-risk families in the care of non-profit organisations (focused on helping families with children in cases of alcohol addiction, divorce problems, delinquency, staying in educational institutions and major problems in school) live in the income bracket of up to a net CZK 20,000 per month.

The household's family situation was measured using a categorical closed-ended scale consisting of the following categories: Living with parents without one's own established family in a complete family (190; 10.20%); Living without one's own established family in an incomplete or surrogate family (80; 4.29%); Living alone or otherwise (298; 16%); Living with a spouse or partner (787; 42.24%); Living in one's own established complete family with children (437; 23.46%); Living in one's own established incomplete family with children (71; 3.81%). This scale had to be recategorised for use in Chi-square analysis into the following scales: 1. I live with my parents without my own established family in a complete or incomplete family or in foster care (270; 14.49%); 2. I live alone or otherwise (298; 16.00%); 3. I live with my spouse in a marriage (787; 42.24%); 4. I live in my own established family with children (508; 27.27%).

The economic situation index is based on 9+1 questions related to the financial (economic) situation and well-being of the respondent and their household and is calculated for each respondent according to equation 1. The individual components (questions) enter the index with a weighting of 1–2 as shown in the summary below. If the answer is 0, the question does not enter the index and is disregarded in the calculation. The index is then calculated from a smaller number of components. For example, for the first question, the most valuable answer "no, we are not entitled to it" is scored 2 points and the least valuable answer "yes, but even with social benefits we are not able to provide economically for our household" is scored 1 point.

Equation 1: Economic Situation Index

$$I_{fwb} = 2\frac{\sum^{10}_{j=1} (Q_{fwb_j} - 1)}{\sum^{10}_{\substack{j=1 \\ Q_{fwb_j}>0}} 1} - 1$$

The questions used to calculate the index are as follows:

1. Do you receive social benefits?
   a) No, we are not entitled to them. (2p)
   b) No, we may be entitled to them, but we have not applied for them. (1.9p)
   c) Yes, social benefits are a welcome addition to our income. (1.5p)
   d) Yes, without social benefits it would be impossible to manage the economic needs of the household. (1.1p)
   e) Yes, but even with social benefits we cannot manage to provide economically for our household. (1p)
   f) Unable to say. (0p)

2. Would it be a problem for you if an important appliance (e. g. fridge, washing machine) broke down unexpectedly?
   a) No, I have a financial reserve for such cases. (2p)
   b) I would use an overdraft, credit card. (1.3p)
   c) Yes, we would have to take out a loan (1.2p)
   d) Would we use hire purchase. (1.2p)
   e) I would ask relatives (parents, grandparents, children, others) for help. (1.5p)
   f) Yes, it would be a serious problem for me / us at the moment. (1p)
   g) I am unable to judge. (0p)

3. Do you have a mortgage? To what extent is it a burden on your household budget?
   a) Yes, repayment does not burden our household budget. (2p)
   b) Yes, the repayment puts an acceptable burden on our household budget. (1.8p)
   c) Yes, repayment puts a significant burden on our household budget. (1.3p)
   d) No, we do not. (0p)
   e) Can't say / don't know. (0p)

4. Do you have another loan? To what extent does it burden your household budget?
   a) Yes, repayment does not burden our household budget. (2p)
   b) Yes, repayment puts an acceptable burden on our household budget. (1.6p)
   c) Yes, repayment puts a significant burden on our household budget. (1.1p)
   d) No, we do not. (0p)
   e) Can't say / don't know. (0b)

5. How often can you go on a family holiday for at least a week under conditions that are acceptable to you?
   a) Not at all. (1p)
   b) Very difficult (even at the cost of a loan). (1.1p)
   c) Once a year. (1.8p)
   d) Two or more times a year. (2p)
   e) Can't judge / don't know. (0p)

6. To what extent will going to the cinema or theatre for your whole family affect your family budget?
   a) No affect, I don't think about such expenses. (2p)
   b) It will not affect our family budget significantly. (1.75p)
   c) It will affect our family budget significantly. (1.1p)

d) We cannot afford it in our current financial situation. (1p)
e) Can't judge / don't know. (0p)

7. How long would your household be able to cover living expenses if it lost half of its income?
   a) Not at all, not even one month. (1p)
   b) At most one month. (1.2p)
   c) Less than 3 months. (1.5p)
   d) Less than 6 months. (1.75p)
   e) More than 6 months. (2p)
   f) Can't judge. (0b for the 15–19 age category, but 1b for the 20+ age category)

8. How long would your household be able to cover living expenses if you lost all income?
   a) Not at all, not even one month. (1p)
   b) At most one month. (1.3p)
   c) Less than 3 months. (1.75p)
   d) Less than 6 months. (1.9p)
   e) More than 6 months. (2p)
   f) Can't judge. (0b for the 15–19 age category, but 1b for the 20+ age category)

9. How do you rate the overall economic situation of your household?
   a) Very poor (the household suffers from a lack of money, lives with difficulties "from paycheck to paycheck" or lives on debt). (1p)
   b) Not very good (the household is not suffering from a shortage, but cannot afford to save almost anything). (1.25p)
   c) Rather moderate (the household has sufficient material security and can afford to save some money). (1.5p)

d) Good (the household is well provided for materially and can afford to save enough). (1.75p)
e) Very good (the household has above-standard material security and can afford to save significantly). (2p)

10. Doubled question 9

Question 9 is specifically measured as the household's surplus and ability to build sufficient reserves. The highest scoring responses are those that indicate that the household can fully meet all of its members' needs (including those that could be described as "emergency") while also being able to save a significant amount of money in reserves.

For the following analysis, the index was divided into three categories: $x \leq \mu - \sigma$ (337; 18.09%); $\mu - \sigma < x \leq \mu + \sigma$ (1091; 58.56%); $x > \mu + \sigma$ (435; 23.35%).

There is no statistically significant difference in terms of family situation in the case of alcoholism risk ($p = 0.863080$). It is also evident from the z-scores that alcohol endangerment is not a problem for the Czech population that is exclusively related to a specific family arrangement. When interpreting these data, however, it is important to note the nature of the population under study. In contrast to other types of substance abuse, in the case of alcohol we asked specifically about the risk of alcoholism. This fact therefore resulted in a relatively low identification of this threat. Due to the high rate of alcohol abuse in Czech society (not fitting into the category of alcoholism, but meeting the criteria for heavy drinking) and the low frequencies of identification of this threat, alcoholism was redefined as alcohol threat for subsequent data collection.

Table 15: Risk of alcoholism by family situation

Family situation					
Alcoholism	**I live with my parents without an established family of my own, in a full or incomplete family or in foster care**	**Alone or otherwise**	**I live with my partner**	**I live in my own extended family with my children**	**Total**
No	248 z: 0.54	268 z: −0.69	718 z: 0.32	461 z: −0.22	1,695
Yes	22 z: −0.54	30 z: 0.69	69 z: −0.32	47 z: 0.22	168
Total	**270**	**298**	**787**	**508**	**1,863**
$\chi^2_{(df=3)} = 0.7429$, $p = 0.863080$, $n = 1863$					

A statistically significant difference was found for alcohol when analysed by the household economic situation index (p = 0.029796). Families with the lowest index (z: 2.65**) perceived a greater threat. Interestingly, unlike illegal drug abuse, the decreasing linearity of perceived threat with improving household economic situation is not apparent.

Table 16: Risk of alcoholism by household economic status index

Household Economic Situation Index				
Alcoholism	$x \leq \mu - \sigma$	$\mu - \sigma < x \leq \mu + \sigma$	$x > \mu + \sigma$	**Total**
No	294 z: −2.65**	1,002 z: 1.54	399 z: 0.62	1,695
Yes	43 z: 2.65**	89 z: −1.54	36 z: −0.62	168
Total	**337**	**1,091**	**435**	**1,863**
$\chi^2_{(df=2)} = 7.0268$, $p = 0.029796$, $n = 1,863$				

A statistically significant relationship in terms of family situation was not demonstrated in the analysis for exposure to tobacco, nicotine and related products (p = 0.188149). Looking at the data in more

detail and recategorising the family situation variable into finer categories, we find that the differences are already statistically significant (p=0.000013). Respondents living without their own established family in an incomplete or surrogate family experience the highest level of threat. From the point of view of social work with social pedagogy, this is a very interesting finding that can serve as one of the challenges for possible social prevention/intervention.

Table 17: Exposure to tobacco, nicotine and related products by family situation

Family situation					
Tobacco	**I live with my parents without an established family of my own, in a full or incomplete family or in foster care**	**Alone or otherwise**	**I live with my partner**	**I live in my own extended family with my children**	**Total**
No	218 z: −1.30	241 z: −1.32	661 z: 0.52	435 z: 1.54	1,555
Yes	52 z: 1.30	57 z: 1.32	126 z: −0.52	73 z: −1.54	308
Total	**270**	**298**	**787**	**508**	**1,863**
$\chi^2_{(df=3)} = 4.7861$, p=0.188149, n=1,863					

A statistically significant relationship is found for the perceived threat from tobacco, nicotine and related products for the household economic situation index (p=0.028207). People with the lowest index (z: 2.48*) feel more threatened, and similarly to illegal drug abuse, the perceived threat decreases as the household economic situation improves.

Table 18: Exposure to tobacco, nicotine and related products by household economic status index

Household Economic Situation Index				
Tobacco	**$x \leq \mu - \sigma$**	**$\mu - \sigma < x \leq \mu + \sigma$**	**$x > \mu + \sigma$**	**Total**
No	266 z: −2.48*	915 z: 0.55	374 z: 1.61	1,555
Yes	71 z: 2.48*	176 z: −0.55	61 z: −1.61	308
Total	**337**	**1,091**	**435**	**1,863**
$\chi^2_{(df=2)} = 7.1364$, $p = 0.028207$, $n = 1,863$				

As in the previous cases, family situation does not significantly influence the drug abuse in our respondents ($p = 0.624243$). The differences are also not indicative in terms of z-scores.

Table 19: Exposure to medicines and medicinal products by family situation

Family situation					
Medicines and medicinal products	**I live with my parents without an established family of my own, in a full or incomplete family or in foster care**	**Alone or otherwise**	**I live with my partner**	**I live in my own extended family with my children**	**Total**
No	265 z: 0.54	289 z: −0.89	767 z: −0.57	499 z: 0.94	1,820
Yes	5 z: −0.54	9 z: 0.89	20 z: 0.57	9 z: −0.94	43
Total	**190**	**80**	**298**	**787**	**1,863**
$\chi^2_{(df=3)} = 1.7574$, $p = 0.624243$, $n = 1,863$					

Medication abstinence is associated with the household economic status index ($p = 0.001066$). People with the lowest index (z: 3.70***) experience the greatest level of the threat. There are no differences between middle- and higher-income groups.

Table 20: Exposure to medicines and pharmaceuticals by household economic status index

Household Economic Situation Index				
Medicines and medicinal products	**$x \leq \mu - \sigma$**	**$\mu - \sigma < x \leq \mu + \sigma$**	**$x > \mu + \sigma$**	**Total**
No	320 z: −3.70***	1,072 z: 1.94	428 z: 1.11	1,820
Yes	17 z: 3.70***	19 z: −1.94	7 z: −1.11	43
Total	**337**	**1,091**	**435**	**1,863**
$\chi^2_{(df=2)} = 13.6869$, p = 0.001066, n = 1,863				

In terms of perceived risk of illegal substance abuse, there were no statistical differences by family situation (p = 0.192292). According to the z-scores, the most noticeable differences can be expected for people living alone (z: 1.31) and the parents' group (z: −1.64).

Table 21: Exposure to illegal drugs by family situation

Family situation					
Illegal addictive substances	**I live with my parents without an established family of my own, in a full or incomplete family or in foster care**	**Alone or otherwise**	**I live with my partner**	**I live in my own extended family with my children**	**Total**
No	261 z: −1.21	288 z: −1.31	770 z: 0.36	501 z: 1.64	1,820
Yes	9 z: 1.21	10 z: 1.31	17 z: −0.36	7 z: −1.64	43
Total	**270**	**298**	**787**	**508**	**1,863**
$\chi^2_{(df=3)} = 4.7346$, p = 0.192292, n = 1,863					

The statistically significant result for perceived threat of illegal substance abuse for the household economic situation index ($p = 0.030933$) indicates a higher proportion of perceived threat in the household with the lowest index (z: 2.49*). Perceived threat then decreases as the household's economic situation improves.

Table 22: Exposure to illegal drugs by household economic status index

Household Economic Situation Index				
Illegal addictive substances	**$x \leq \mu - \sigma$**	**$\mu - \sigma < x \leq \mu + \sigma$**	**$x > \mu + \sigma$**	**Total**
No	323 z: −2.49*	1,068 z: 0.68	429 z: 1.47	1,820
Yes	14 z: 2.49*	23 z: −0.68	6 z: −1.47	43
Total	**337**	**508**	**435**	**1,863**
$\chi^2_{(df=2)} = 6.9519$, $p = 0.030933$, $n = 1,863$				

Perceived threat to substance abuse is independent of family situation, contrary to initial assumptions. It appears that the type of household in terms of number and relationships does not affect subjective perceptions of threat. It should be noted, however, that our dataset did not allow for such a detailed analysis of household composition that household types could be distinguished in detail into complete, incomplete, self-adopted. This may have significantly affected the result and would therefore be worthy of further detailed investigation. In contrast, perceptions of substance endangerment have been shown to depend strongly on the economic situation of the household. People in low-income households perceive the greatest level of threat for all four substance groups. The highest difference is seen for drug abuse, the lowest for tobacco.

3.3 Restructured measurements, 2020–2021

After restructuring the questionnaire and focusing only on measuring subjective threat at the individual level, the threat scale was completely transformed in 2020. We developed four-dimensional scales to measure the impact of these threats on key areas of our lives: health, family life (relationships with parents, siblings, grandparents, own children and extended family), social (e. g. social status, prestige, relationships in the community, at work, at school, with friends, etc.) and economic (financial). All of these scales may be disjoint analyses relating to underlying sociodemographic factors or other factor variables. The scale is designed as a continuous internally restricted scale from 1 to 10. Measurement was provided by a straight line on which only the extremes were described. Respondents were asked to indicate their position on this straight line without providing a numerical value for the response. Their only clues were the extremes (on the left "low or no threat", on the right "very high threat").

The composition of the research population is described in detail in Chapter 2 – Sociodemographic analysis of substance abuse data in 2020.

All dependencies were statistically analysed using a one-way ANOVA test (Sheskin 2011) and those dependencies with a calculated probability (p) of less than 0.05 were marked as significant. Results less than .01 and .001 were also recorded. A pooled bivariate analysis of the relationship of substance endangerment across the dimensions was conducted using a factorial ANOVA with two factors (substance and dimension of endangerment). Results where $p < .05$ were considered statistically significant.

3.3.1 Alcohol

In this cohort, a total of 410 respondents reported abstaining from alcohol, of which males totalled 289 (72.68%) and females 112 (27.32%). The age distribution was as follows: youth and young adults 38 (9.27%), middle adulthood 161 (39.27%), older adulthood 126 (30.73%), senior citizens 85 (20.73%). The highest mean score was reported by the respondents for health threats (A: 4.5024) while the lowest mean score was measured in the social domain (A: 3.3580).

Statistical significance for perceived alcohol threat was found in the economic domain (p = 0.055808). Women feel significantly more threatened by alcohol in the economic domain than men.

Table 23: Alcohol risk by sex

Alcohol		In the field of health	In the field of family life	In the social field	In the economic field
Sex	Male	298	298	298	298
		A: 4.4483	A: 4.0782	A: 3.2772	A: 3.6591
		CI: 4.275–4.622	CI: 3.897–4.259	CI: 3.018–3.536	CI: 3.124–4.194
		SD: 2.8760	SD: 2.9071	SD: 2.5300	SD: 2.7472
	Female	112	112	112	112
		A: 4.6464	A: 3.8714	A: 3.5732	A: 4.2696
		CI: 4.473–4.820	CI: 3.690–4.053	CI: 3.314–3.833	CI: 3,735–4,804
		SD: 3.2200	SD: 3.2146	SD: 2.8094	SD: 3.1827
	Total	**A: 4.5024**	**A: 4.0217**	**A: 3.3580**	**A: 3.8259**
		SD: 2.9712	**SD: 2.9916**	**SD: 2.6091**	**SD: 2.8816**
		Test results ANOVA: F(df1 = 1, df2 = 408) = 0.361, p = 0.548100, n = 410	Test results ANOVA: F(df1 = 1, df2 = 408) = 0.388, p = 0.533567, n = 410	Test results ANOVA: F(df1 = 1, df2 = 408) = 1.048, p = 0.306556, n = 410	Test results ANOVA: F(df1 = 1, df2 = 408) = 3.679, p = 0.055808, n = 410

In terms of age groups, statistical significance was found for social threat (p = 0.047260). Younger respondents perceived higher levels of threat than older respondents. Respondents in middle adulthood had the highest mean social scores.

Table 24: Alcohol risk by age

Alcohol		In the field of health	In the field of family life	In the social field	In the economic field
Age groups by life stages	Youth and young adults	38	38	38	38
		A: 4.4868	A: 4.0526	A: 3.6211	A: 4.0105
		CI: 4.16–4.809	CI: 3.82–4.279	CI: 3.210–4.032	CI: 3.602–4.419
		SD: 3.2148	SD: 2.8245	SD: 3.0132	SD: 2.9550
	Middle adulthood	161	161	161	161
		A: 4.6820	A: 4.2248	A: 3.7335	A: 4.0820
		CI: 4.360–5.004	CI: 3.999–4.451	CI: 3.322–4.145	CI: 3.674–4.490
		SD: 2.9453	SD: 3.0444	SD: 2.7900	SD: 2.9187
	Older adulthood	126	126	126	126
		A: 4.0913	A: 3.7460	A: 2.8976	A: 3.2865
		CI: 3.769–4.413	CI: 3.520–3.972	CI: 2.486–3.309	CI: 2.878–3.695
		SD: 2.7916	SD: 2.9194	SD: 2.1948	SD: 2.5975
	Old age	85	85	85	85
		A: 4.7788	A: 4.0318	A: 3.2118	A: 4.0576
		CI: 4.457–5.101	CI: 3.806–4.258	CI: 2.800–3.623	CI: 3.649–4.466
		SD: 3.1494	SD: 3.0876	SD: 2.5516	SD: 3.1123
	Total	**A: 4.5024**	**A: 4.0217**	**A: 3.3580**	**A: 3.8259**
		SD: 2.9712	**SD: 2.9916**	**SD: 2.6091**	**SD: 2.8816**
		Test results ANOVA: F(df1 = 3, df2 = 406) = 1.248, p = 0.291934, n = 410	Test results ANOVA: F(df1 = 3, df2 = 406) = 0.604, p = 0.612723, n = 410	Test results ANOVA: F(df1 = 3, df2 = 406) = 2.670, p = 0.047260, n = 410	Test results ANOVA: F(df1 = 3, df2 = 406) = 2.149, p = 0.093563, n = 410

In terms of education, there are statistical significances in both family life (p = 0.001238) and economics (p = 0.000829). The highest level of threat in the area of family life is perceived by people with an education. In the area of economy, secondary school students perceive the highest level of threat.

Table 25: Alcohol risk by education

Alcohol		In the field of health	In the field of family life	In the social field	In the economic field
Highest education achieved (by progression)	Primary education or apprenticeship	14	14	14	14
		A: 4.1357	A: 3.6500	A: 2.6000	A: 4.2857
		CI: 3.819–4.452	CI: 3.073–4.227	CI: 2.233–2.967	CI: 3.718–4.853
		SD: 3.3596	SD: 2.7983	SD: 2.3826	SD: 3.4862
	High school students	11	11	11	11
		A: 5.5273	A: 4.5182	A: 4.6364	A: 5.8455
		CI: 5.211–5.844	CI: 3.942–5.095	CI: 4.270–5.003	CI: 5.278–6.413
		SD: 3.1938	SD: 2.7676	SD: 3.3613	SD: 2.4989
	Vocational training in the specialised field	112	112	112	112
		A: 4.8107	A: 4.7500	A: 3.6893	A: 4.4920
		CI: 4.494–5.127	CI: 4.173–5.327	CI: 3.322–4.056	CI: 3.924–5.060
		SD: 2.9456	SD: 3.0419	SD: 2.4891	SD: 3.0294
	Secondary education	110	110	110	110
		A: 4.6964	A: 4.3882	A: 3.5082	A: 3.8445
		CI: 4.380–5.013	CI: 3.812–4.965	CI: 3.141–3.875	CI: 3.277–4.412
		SD: 3.0641	SD: 3.0960	SD: 2.6826	SD: 2.8936
	Undergraduates	21	21	21	21
		A: 4.3524	A: 3.7714	A: 3.6714	A: 3.6524
		CI: 4.036–4.669	CI: 3.195–4.348	CI: 3.305–4.038	CI: 3.085–4.220
		SD: 3.1959	SD: 3.0281	SD: 3.2105	SD: 2.8051
	University education	142	142	142	142
		A: 4.0880	A: 3.1986	A: 2.9099	A: 3.1099
		CI: 3.772–4.404	CI: 2.622–3.775	CI: 2.543–3.277	CI: 2.542–3.678
		SD: 2.8160	SD: 2.7295	SD: 2.4521	SD: 2.5489
	Total	**A: 4.5024**	**A: 4.0217**	**A: 3.3580**	**A: 3.8259**
		SD: 2.9712	**SD: 2.9916**	**SD: 2.6091**	**SD: 2.8816**
		Test results ANOVA: F(df1 = 5, df2 = 404) = 1.205, p = 0.305735, n = 410	Test results ANOVA: F(df1 = 5, df2 = 404) = 4.090, p = 0.001238, n = 410	Test results ANOVA: F(df1 = 5, df2 = 404) = 2.126, p = 0.061529, n = 410	Test results ANOVA: F(df1 = 5, df2 = 404) = 4.284, p = 0.000829, n = 410

3.3.2 Tobacco, nicotine and related products

In our study population, 759 respondents declared smoking abstinence, of which 418 (55.07%) were male and 341 (44.93%) were female. In terms of age, this population is distributed as follows: youth and young adults 92 (12.12%), middle adult 327 (43.08%), older adult 194 (25.56%), senior 146 (19.24%). The highest mean score was given by the respondents for health risk (A: 5.8953) while the lowest mean score was measured in the social domain (A: 3.0194).

Similar to alcohol, there is a statistically significant gender difference only for perceived social threat (p = 0.055456), with women feeling more threatened.

Table 26: Exposure to tobacco, nicotine and related products by sex

Tobacco, nicotine and related products		In the field of health	In the field of family life	In the social field	In the economic field
Sex	Male	418	418	418	418
		A: 5.8909	A: 3.4237	A: 2.8792	A: 4.6230
		CI: 5.881–5.900	CI: 3.300–3.548	CI: 2.575–3.184	CI: 4.338–4.908
		SD: 2.8376	SD: 2.4689	SD: 2.1213	SD: 2.8334
	Female	341	341	341	341
		A: 5.9006	A: 3.5507	A: 3.1912	A: 4.9152
		CI: 5.891–5.910	CI: 3.427–3.675	CI: 2.887–3.496	CI: 4.630–5.201
		SD: 2.8701	SD: 2.6128	SD: 2.3545	SD: 2.9130
	Total	**A: 5.8953**	**A: 3.4808**	**A: 3.0194**	**A: 4.7543**
		SD: 2.8504	**SD: 2.5337**	**SD: 2.2330**	**SD: 2.8712**
		Test results ANOVA: F(df1 = 1, df2 = 757) = 0.002, p = 0,962927, n = 759	Test results ANOVA: F(df1 = 1, df2 = 757) = 0.472, p = 0.492339, n = 759	Test results ANOVA: F(df1 = 1, df2 = 757) = 3.680, p = 0.055456, n = 759	Test results ANOVA: F(df1 = 1, df2 = 757) = 1.949, p = 0.163158, n = 759

In the social domain, there are also statistical differences by age group (p = 0.035557). The greatest level of threat is perceived by people in older adulthood.

Table 27: Exposure to tobacco, nicotine and related products by age

Tobacco, nicotine and related products		In the field of health	In the field of family life	In the social field	In the economic field
Age groups by life stages	Youth and young adults	92	92	92	92
		A: 5.7359	A: 3.5598	A: 2.6304	A: 5.2522
		CI: 5.462–6.010	CI: 3.353–3.766	CI: 2.362–2.899	CI: 4.981–5.523
		SD: 3.0196	SD: 2.6677	SD: 1.8692	SD: 3.0688
	Middle adulthood	327	327	327	327
		A: 5.6667	A: 3.5645	A: 3.1670	A: 4.5841
		CI: 5.393–5.941	CI: 3.358–3.771	CI: 2.898–3.436	CI: 4.313–4.855
		SD: 2.8749	SD: 2.5456	SD: 2.3370	SD: 2.8770
	Older adulthood	194	194	194	194
		A: 6.2139	A: 3.5830	A: 3.1990	A: 4.9381
		CI: 5.940–6.488	CI: 3.376–3.790	CI: 2.930–3.468	CI: 4.667–5.209
		SD: 2.7414	SD: 2.5885	SD: 2.3267	SD: 2.8205
	Old age	146	146	146	146
		A: 6.0842	A: 3.1075	A: 2.6952	A: 4.5774
		CI: 5.810–6.358	CI: 2.901–3.314	CI: 2.427–2.964	CI: 4.306–4.848
		SD: 2.8034	SD: 2.3305	SD: 2.0236	SD: 2.7729
	Total	**A: 5.8953**	**A: 3.4808**	**A: 3.0194**	**A: 4.7543**
		SD: 2.8504	**SD: 2.5337**	**SD: 2.2330**	**SD: 2.8712**
		Test results ANOVA: F(df1 = 3, df2 = 755) = 1.825, p = 0.141117, n = 759	Test results ANOVA: F(df1 = 3, df2 = 755) = 1.312, p = 0.269345, n = 759	Test results ANOVA: F(df1 = 3, df2 = 755) = 2.872, p = 0.035557, n = 759	Test results ANOVA: F(df1 = 3, df2 = 755) = 1.760, p = 0.153336, n = 759

In terms of education, respondents felt differently about health (p = 0.048030) and the economic domain (p = 0.046812). Respondents with primary education or studying an apprenticeship feel most threatened in the health domain. In the economic domain, it is secondary school students who perceive the threat from tobacco, nicotine and related products most intensely.

Table 28: Exposure to tobacco, nicotine and related products by education

Tobacco, nicotine and related products		In the field of health	In the field of family life	In the social field	In the economic field
Highest education achieved (by progression)	Primary education or apprenticeship	33	33	33	33
		A: 6.2030	A: 3.4394	A: 2.9152	A: 5.0333
		CI: 5.900–6.506	CI: 3.268–3.611	CI: 2.825–3.005	CI: 4.727–5.340
		SD: 2.9392	SD: 2.4394	SD: 2.1048	SD: 3.0235
	High school students	27	27	27	27
		A: 4.4185	A: 3.8074	A: 2.8185	A: 5.1852
		CI: 4.115–4.722	CI: 3.636–3.979	CI: 2.729–2.908	CI: 4.879–5.492
		SD: 2.8397	SD: 2.6988	SD: 2.2561	SD: 3.0108
	Vocational training in the specialised field	186	186	186	186
		A: 5.9995	A: 3.3672	A: 3.0199	A: 5.0973
		CI: 5.696–6.303	CI: 3.195–3.539	CI: 2.930–3.110	CI: 4.791–5.404
		SD: 2.8061	SD: 2.4441	SD: 2.1730	SD: 2.9459
	Secondary education	242	242	242	242
		A: 6.0748	A: 3.6864	A: 3.1050	A: 4.8860
		CI: 5.772–6.378	CI: 3.515–3.858	CI: 3.015–3.195	CI: 4.580–5.192
		SD: 2.8769	SD: 2.7109	SD: 2.3859	SD: 2.8723
	Undergraduates	50	50	50	50
		A: 5.2840	A: 3.7240	A: 2.7140	A: 4.7000
		CI: 4.981–5.587	CI: 3.552–3.896	CI: 2.624–2.804	CI: 4.394–5.006
		SD: 3.0132	SD: 2.8413	SD: 1.8786	SD: 2.8037
	University education	221	221	221	221
		A: 5.8837	A: 3.2624	A: 3.0344	A: 4.2394
		CI: 5.580–6.187	CI: 3.091–3.434	CI: 2.945–3.124	CI: 3.933–4.546
		SD: 2.7680	SD: 2.3212	SD: 2.2147	SD: 2.7380
	Total	**A: 5.8953**	**A: 3.4808**	**A: 3.0194**	**A: 4.7543**
		SD: 2.8504	**SD: 2.5337**	**SD: 2.2330**	**SD: 2.8712**
		Test results ANOVA: F(df1 = 5, df2 = 753) = 2.247, p = 0.048030, n = 759	Test results ANOVA: F(df1 = 5, df2 = 753) = 0.905, p = 0.477349, n = 759	Test results ANOVA: F(df1 = 5, df2 = 753) = 0.317, p = 0.903024, n = 759	Test results ANOVA: F(df1 = 5, df2 = 753) = 2.260, p = 0.046812, n = 759

3.3.3 Medicines and medicinal products

A total of 83 respondents in our sample admitted to abusing drugs, of whom 39 were male (46.99%) and 44 were female (53.01%). A similar number of respondents admitted to abusing drugs in older adulthood and old age, with a total of 24 (28.92%) respondents in both groups. In young adulthood, the number of respondents is 13 (15.66%) and in middle adulthood it is 22 (26.51%). The highest mean score was reported by the respondents for health threat (A: 4.5988) while the lowest mean score was measured in social (A: 3.2566).

In terms of gender, the feeling of being threatened by this abusive condition was reflected in the health domain ($p = 0.035262$) and in the family life domain ($p = 0.028758$). In both these domains, women felt more threatened.

Table 29: Exposure to medicines and medicinal products by sex

Medicines and medicinal products		In the field of health	In the field of family life	In the social field	In the economic field
Sex	Male	39	39	39	39
		A: 3.8821	A: 2.7769	A: 2.7667	A: 3.3795
		CI: 2.540–5.224	CI: 1.524–4.030	CI: 1.849–3.684	CI: 2.664–4.095
		SD: 2.6752	SD: 2.0404	SD: 1.9987	SD: 2.5293
	Female	44	44	44	44
		A: 5.2341	A: 4.0386	A: 3.6909	A: 4.1000
		CI: 3.892–6.576	CI: 2.786–5.291	CI: 2.773–4.609	CI: 3.385–4.815
		SD: 3.0337	SD: 2.9710	SD: 2.5619	SD: 2.9691
	Total	**A: 4.5988**	**A: 3.4458**	**A: 3.2566**	**A: 3.7614**
		SD: 2.9332	**SD: 2.6381**	**SD: 2.3470**	**SD: 2.7782**
		Test results ANOVA: $F(df1 = 1, df2 = 81) = 4.585$, $p = 0.035262$, $n = 83$	Test results ANOVA: $F(df1 = 1, df2 = 81) = 4.957$, $p = 0.028758$, $n = 83$	Test results ANOVA: $F(df1 = 1, df2 = 81) = 3.296$, $p = 0.073151$, $n = 83$	Test results ANOVA: $F(df1 = 1, df2 = 81) = 1.397$, $p = 0.240628$, $n = 83$

In terms of age, there were no statistical differences in threat perception in any of the areas.

Table 30: Exposure to medicines and medicinal products by age

Medicines and medicinal products		In the field of health	In the field of family life	In the social field	In the economic field
Age groups by life stages	Youth and young adults	13	13	13	13
		A: 5.3769	A: 3.0692	A: 3.1231	A: 2.5462
		CI: 4.782–5.972	CI: 2.879–3.260	CI: 2.876–3.370	CI: 1.914–3.178
		SD: 3.4572	SD: 2.7548	SD: 2.8335	SD: 1.8795
	Middle adulthood	22	22	22	22
		A: 4.6091	A: 3.5636	A: 3.5955	A: 4.2364
		CI: 4.014–5.204	CI: 3.373–3.754	CI: 3.348–3.843	CI: 3.604–4.869
		SD: 3.1007	SD: 2.9731	SD: 2.5324	SD: 3.2669
	Older adulthood	24	24	24	24
		A: 3.8792	A: 3.5167	A: 3.0458	A: 3.7833
		CI: 3.284–4.475	CI: 3.326–3.707	CI: 2.799–3.293	CI: 3.151–4.415
		SD: 2.4537	SD: 2.4736	SD: 1.9056	SD: 2.5006
	Old age	24	24	24	24
		A: 4.8875	A: 3.4708	A: 3.2292	A: 3.9625
		CI: 4.292–5.483	CI: 3.280–3.661	CI: 2.982–3.476	CI: 3.330–4.595
		SD: 2.9443	SD: 2.5620	SD: 2.4075	SD: 2.9297
	Total	**A: 4.5988**	**A: 3.4458**	**A: 3.2566**	**A: 3.7614**
		SD: 2.9332	**SD: 2.6381**	**SD: 2.3470**	**SD: 2.7782**
		Test results ANOVA: F(df1 = 3, df2 = 79) = 0.860, p = 0.465663, n = 83	Test results ANOVA: F(df1 = 3, df2 = 79) = 0.106, p = 0.956441, n = 83	Test results ANOVA: F(df1 = 3, df2 = 79) = 0.226, p = 0.878108, n = 83	Test results ANOVA: F(df1 = 3, df2 = 79) = 1.089, p = 0.358552, n = 83

There are also no statistically significant differences in terms of education.

Table 31: Exposure to medicines and medicinal products by education

Medicines and medicinal products		In the field of health	In the field of family life	In the social field	In the economic field
Highest education achieved (by progression)	Primary education or apprenticeship	5	5	5	5
		A: 6.6800	A: 2.4000	A: 2.7200	A: 3.5800
		CI: 6.078–7.282	CI: 1.787–3.013	CI: 2.095–3.345	CI: 3.169–3.991
		SD: 2.9474	SD: 0.5244	SD: 1.6022	SD: 3.5450
	High school students	6	6	6	6
		A: 3.9167	A: 2.2167	A: 1.6333	A: 2.6500
		CI: 3.314–4.519	CI: 1.604–2.830	CI: 1.009–2.258	CI: 2.239–3.061
		SD: 3.6158	SD: 1.6412	SD: 0.5610	SD: 2.1154
	Vocational training in the specialised field	25	25	25	25
		A: 4.2640	A: 3.8120	A: 3.3000	A: 3.8040
		CI: 3.662–4.866	CI: 3.199–4.425	CI: 2.675–3.925	CI: 3.393–4.215
		SD: 2.2625	SD: 2.6766	SD: 2.3812	SD: 2.5826
	Secondary education	26	26	26	26
		A: 4.5846	A: 3.8962	A: 3.5000	A: 4.0615
		CI: 3.982–5.187	CI: 3.283–4.509	CI: 2.875–4.125	CI: 3.651–4.472
		SD: 3.1362	SD: 2.9138	SD: 2.5457	SD: 2.9481
	Undergraduates	5	5	5	5
		A: 5.9800	A: 4.4600	A: 5.2800	A: 2.6200
		CI: 5.378–6.582	CI: 3.847–5.073	CI: 4.655–5.905	CI: 2.209–3.031
		SD: 4.1662	SD: 3.8830	SD: 3.6901	SD: 2.1638
	University education	16	16	16	16
		A: 4.3187	A: 2.6125	A: 2.9375	A: 4.0375
		CI: 3.716–4.921	CI: 1.999–3.226	CI: 2.313–3.562	CI: 3.627–4.448
		SD: 2.9342	SD: 2.1939	SD: 1.7576	SD: 3.1249
	Total	**A: 4.5988**	**A: 3.4458**	**A: 3.2566**	**A: 3.7614**
		SD: 2.9332	**SD: 2.6381**	**SD: 2.3470**	**SD: 2.7782**
		Test results ANOVA: F(df1 = 5, df2 = 77) = 0.878, p = 0.500029, n = 83	Test results ANOVA: F(df1 = 5, df2 = 77) = 1.142, p = 0.345378, n = 83	Test results ANOVA: F(df1 = 5, df2 = 77) = 1.535, p = 0.188892, n = 83	Test results ANOVA: F(df1 = 5, df2 = 77) = 0.443, p = 0.817091, n = 83

3.3.4 Illegal addictive substances

In our cohort, 129 respondents admitted to abusing illegal substances, 93 (72.09%) of whom were male and 36 (27.91%) were female. In terms of age, 82 (63.57%) are predominantly middle-aged. Respondents in younger adulthood make up a total of 24.81% (32), older adults make up 6.98% (9) and seniors make up 4.65% (6). The perceived level of threat is at a relatively low level. The highest mean score was achieved in the area of economic (A: 3.6434) and the lowest in the area of family life (A: 3.1543). Thus, compared to other types of abusive behaviour, this is the most underestimated threat.

In terms of gender, there are no statistically significant differences in any of the threat domains studied.

Also according to other research, although there is a long-term increase in the proportion of people who perceive regular consumption of excessive amounts of alcohol (drinking five or more glasses of alcohol on one occasion every weekend) as very risky, there is a slight decrease in the proportion of respondents who consider experimenting with cannabis substances or ecstasy as risky. (Mravčík 2022b)

Table 32: Exposure to illegal drugs by sex

Illegal addictive substances		In the field of health	In the field of family life	In the social field	In the economic field
Sex	Man	93	93	93	93
		A: 3.2957	A: 3.1387	A: 3.1054	A: 3.6559
		CI: 2.796–3.795	CI: 3.089–3.188	CI: 2.622–3.589	CI: 3.616–3.696
		SD: 2.7474	SD: 2.7295	SD: 2.6873	SD: 2.8118
	Woman	36	36	36	36
		A: 3.8583	A: 3.1944	A: 3.6500	A: 3.6111
		CI: 3.359–4.358	CI: 3.145–3.244	CI: 3.167–4.133	CI: 3.571–3.651
		SD: 3.2193	SD: 3.0304	SD: 3.3669	SD: 2.9944
	Total	**A: 3.4527**	**A: 3.1543**	**A: 3.2574**	**A: 3.6434**
		SD: 2.8850	**SD: 2.8048**	**SD: 2.8897**	**SD: 2.8521**
		Test results ANOVA: F(df1 = 1, df2 = 127) = 0.987, p = 0.322366, n = 129	Test results ANOVA: F(df1 = 1, df2 = 127) = 0.010, p = 0.919835, n = 129	Test results ANOVA: F(df1 = 1, df2 = 127) = 0.921, p = 0.338956, n = 129	Test results ANOVA: F(df1 = 1, df2 = 127) = 0,006, p = 0.936589, n = 129

As is the case with gender differences, there were no statistical differences in the perception of the threat of illegal drugs between age groups.

Table 33: Exposure to illegal drugs by age

Illegal addictive substances		In the field of health	In the field of family life	In the social field	In the economic field
Age groups by life stages	Youth and young adults	32	32	32	32
		A: 3.1437	A: 2.6125	A: 2.8188	A: 3.8188
		CI: 2.678–3.610	CI: 2.235–2.990	CI: 2.292–3.346	CI: 3.275–4.363
		SD: 2.7203	SD: 1.8914	SD: 2.5910	SD: 2.5568
	Middle adulthood	82	82	82	82
		A: 3.7354	A: 3.3561	A: 3.5354	A: 3.7159
		CI: 3.270–4.201	CI: 2.979–3.733	CI: 3.008–4.063	CI: 3.172–4.260
		SD: 3.0715	SD: 3.0481	SD: 3.0822	SD: 3.0133
	Older adulthood	9	9	9	9
		A: 2.5111	A: 2.9667	A: 2.0111	A: 1.9556
		CI: 2.045–2.977	CI: 2.589–3.344	CI: 1.484–2.538	CI: 1.411–2.500
		SD: 1.7751	SD: 2.9971	SD: 0.9752	SD: 1.0584
	Old age	6	6	6	6
		A: 2.6500	A: 3.5667	A: 3.6667	A: 4.2500
		CI: 2.184–3.116	CI: 3.189–3.944	CI: 3.139–4.194	CI: 3.706–4.794
		SD: 2.2421	SD: 3.3933	SD: 3.3524	SD: 3.6021
	Total	**A: 3.4527**	**A: 3.1543**	**A: 3.2574**	**A: 3.6434**
		SD: 2.8850	**SD: 2.8048**	**SD: 2.8897**	**SD: 2.8521**
		Test results ANOVA: F(df1 = 3, df2 = 125) = 0.856, p = 0.465837, n = 129	Test results ANOVA: F(df1 = 3, df2 = 125) = 0.590, p = 0.622376, n = 129	Test results ANOVA: F(df1 = 3, df2 = 125) = 1.099, p = 0.352080, n = 129	Test results ANOVA: F(df1 = 3, df2 = 125) = 1,205, p = 0.310873, n = 129

The only statistically significant difference for illegal substance abuse was for economic education (p = 0.053782). People with primary education and students of apprenticeships feel most at risk.

Table 34: Exposure to illegal drugs by education

Illegal addictive substances		In the field of health	In the field of family life	In the social field	In the economic field
Highest education achieved (by progression)	Primary education or apprenticeship	3	3	3	3
		A: 5.8667	A: 5.7333	A: 4.3333	A: 6.1000
		CI: 5.486–6.248	CI: 5.187–6.279	CI: 3.982–4.684	CI: 5.373–6.827
		SD: 3.8889	SD: 3.7581	SD: 3.3710	SD: 4.1581
	High school students	13	13	13	13
		A: 3.7154	A: 2.5846	A: 3.4154	A: 3.6769
		CI: 3.334–4.096	CI: 2.039–3.131	CI: 3.064–3.766	CI: 2.950–4.404
		SD: 3.5487	SD: 1.6999	SD: 3.2212	SD: 2.3788
	Vocational training in the specialised field	20	20	20	20
		A: 3.5050	A: 3.7050	A: 3.7450	A: 4.9900
		CI: 3.124–3.886	CI: 3.159–4.251	CI: 3.394–4.096	CI: 4.263–5.717
		SD: 2.7186	SD: 2.9119	SD: 3.1854	SD: 3.4753
	Secondary education	42	42	42	42
		A: 3.4500	A: 3.5095	A: 3.3643	A: 3.7262
		CI: 3.069–3.831	CI: 2.963–4.056	CI: 3.013–3.715	CI: 2.999–4.454
		SD: 2.9598	SD: 3.2406	SD: 2.9873	SD: 2.9438
	Undergraduates	18	18	18	18
		A: 2.9056	A: 2.5944	A: 2.5056	A: 2.5222
		CI: 2.525–3.287	CI: 2.048–3.141	CI: 2.155–2.857	CI: 1.795–3.250
		SD: 2.5591	SD: 2.8507	SD: 2.8003	SD: 2.2034
	University education	33	33	33	33
		A: 3.4000	A: 2.6636	A: 3.0758	A: 3.0970
		CI: 3.019–3.781	CI: 2.118–3.210	CI: 2.725–3.427	CI: 2.370–3.824
		SD: 2.7903	SD: 2.2713	SD: 2.5578	SD: 2.3998
	Total	**A: 3.4527**	**A: 3.1543**	**A: 3.2574**	**A: 3.6434**
		SD: 2.8850	**SD: 2.8048**	**SD: 2.8897**	**SD: 2.8521**
		Test results ANOVA: F(df1 = 5, df2 = 123) = 0.565, p = 0.726751, n = 129	Test results ANOVA: F(df1 = 5, df2 = 123) = 1.262, p = 0.284807, n = 129	Test results ANOVA: F(df1 = 5, df2 = 123) = 0.476, p = 0.793472, n = 129	Test results ANOVA: F(df1 = 5, df2 = 123) = 2.247, p = 0.053782, n = 129

3.3.5 Summary results of threat measurements

The analysis of the different types of risk for substance abuse showed that the respondents perceived the risk most strongly in the health area and least strongly in the social area. In the health domain, respondents feel most at risk when abusing tobacco, nicotine and related products. The family life and social domains are the most at risk of all substance abusers when abusing alcohol. The economic threat is most pronounced for tobacco, nicotine and related products. In contrast, respondents who reported abusing drugs feel the least threatened in the area of health. In the family life domain, respondents who reported abusing drugs feel the least threatened, and in the social domain, respondents who reported abusing tobacco, nicotine and related products feel the least threatened. Respondents with drug abuse feel the least threatened in the economic area, but the economic area is also the area where these respondents as a group feel the most threatened of all four types of threat.

The single-factor analyses of addiction that have been addressed in previous chapters were further supplemented with a two-factor analysis, where we examined the interaction of the dimensions of threat (health, family, community, and economy) and the substance that causes the feeling of threat (alcohol, tobacco, drugs, and illegal drugs). The results of this analysis can be found in Table 35. The results clearly show that:

a) The different substances do not affect the feeling of threat in the same way (tobacco most, illegal drugs least).
b) The different dimensions of threat are perceived differently (most threat is perceived in the health domain, least in the social domain).
c) Feelings of threat are not only influenced separately by the type of substance and the dimensions of threat, but both interact and have a joint effect on the level of perceived threat.

Table 35: Substance abuse risk in relation to the dimensions of risk

	SS	Df	MS	F	p
Intercept	47 056.82	1	47 056.82	5 792.352	0.000000
Substance	357.45	3	119.15	14.666	0.000000
Dimension	658.50	3	219.50	27.019	0.000000
Substance *Dimension	1 079.78	9	119.98	14.768	0.000000

It can be assumed that numerous primary prevention programmes that emphasise health risks over other types of risks may have an impact on perceived risk. Indirectly, the effectiveness of these programmes can be confirmed. This can be seen most explicitly in the case of tobacco, nicotine and related product abuse, where public campaigns targeting the health risks of smoking are set up very well. Information on the health harms of smoking is thus reflected in the general awareness of our respondents as well. They consider smoking as an activity that is highly hazardous to health. In this respect, it should be highlighted that the respondents who reported the lowest sense of threat in the area of abusing legal addictive substances feel the lowest sense of threat in the social area. It is therefore evident that abusing these substances does not lead to social exclusion, but on the contrary is a generally accepted form of social inclusion.

4 Value contexts of substance abuse

Values, which are undoubtedly one of the key and defining characteristics of a person's personality, are defined as enduring internal prescriptive and normative beliefs about ways of acting or goal states of affairs. (Rokeach 1973) Their formation or transformation is a continuous and lifelong process, the work of (self-)education and rooted in the culture of a given society. (Inglehart 1977; 1997; 1990)

They are increasingly perceived and examined in the literature as motivational components that significantly influence goals and modes of action. It is evident that social deviance is associated with a shift in value preferences relative to the general population without a tendency toward delinquent behaviour. (Durkheim 2002; Weber and Kalberg 2011; Allport et al. 1960; Rokeach 1973; 1968; Schwartz and Bilsky 1987; 1990; Schwartz 2012) For example, according to Sak (2000), deviant youth are dominated by values such as possessions, salary, and social prestige, which are sources for gaining self-esteem and higher self-worth. Liberal values, i. e. freedom, entrepreneurship and democracy, are also at the forefront. Substance abuse is a category of behaviour for which an influence on value preferences can be assumed (Sak 2000).

In terms of the issue we are investigating, we consider one of the most appropriate definitions of values to be the one created in 1951 by the American cultural anthropologist Clyde Kluckhohn. He did not focus only on the psychological characterisation of values, which prevailed in later definitions, but understood the concept of

value in the broader context of culture, nature and man's place in them. In this sense, Kluckhohn understands value as
"A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action." (Kluckhohn 1951, p. 395).

Since a value is never a single value, and values in fact constitute a whole complex of beliefs, Kluckhohn also proposed a definition of value orientation that reflects precisely the structural character of the value complex:
"A value orientation may be defined as a generalized and organized conception, influencing behavior, of nature, of man's place in it, of man's relation to man, and of the desirable and nondesirable as they may relate to man-environment and interhuman relations" (Kluckhohn 1951, p. 411).

If values and value orientation as a whole represent, in a sense, a vector of desires toward which a person is moving, then substance abuse can be seen as a pathway to the fulfilment of these desires or even an attained goal. In both cases, the role of the addictive substance in relation to values can be seen in two ways:

a) as a substitute for a goal or a route to a goal – in this case, the addictive substance plays a substitution role and its use is an escape strategy when values are unable to be fulfilled by their actual content. In this case, the content supplied by the addictive substance is illusory.
b) as an end in itself, when the transformation of the person's values has already taken place and the addictive substance becomes a value in itself (or the desire for it and the conviction of its importance).

In the following chapter we will look in more detail not only at the context of value preferences for different types of abusers, but especially at the context of the perceived level of threat from a given

type of substance. We will analyse the relationships to each value in terms of the first of the two roles mentioned above. The reason for this is that in the second case, the relationship to the other values loses its relevance and clinical intervention is needed, which, among other things, works to change this deviant value orientation.

4.1 Exploration of values

Research on values and value preferences has a long tradition in this country and in the world (EVS 2021; ESS 2021; Inglehart 2021; Prudký 2009; Cakirpaloglu 2009; Pospíšilová 2010a; Šímová et al. 2010; Pospíšil and Prokešová 2010; Trochtová et al. 2021a). In operationalising the concept of value, we encounter a fundamental problem consisting in its ambiguity. It takes on a different meaning in ethics and social sciences (Rokeach 1968; Schwartz and Bilsky 1990), another in economics (Fishman et al. 2007), semiotics (Saussure 2002), law, mathematics, computer science or medicine. This inconsistency and plasticity of the concept poses a particular pitfall when trying to trace research that targets multidisciplinary issues. The difficulties caused by the vague and ambiguous conceptualisation of the term became particularly apparent when we tried to locate texts that reported on the context of drug and pharmaceutical withdrawal and value orientations. In this context, the concept of value seems to be traceable practically only in its medical meaning, i. e. as an effective level.

In the social sciences and humanities, Rudolf Hermann Lotze was the first ever to use the concept of value to denote preferences in human reasoning (Lotze 1857). Probably the most famous metaphysical concept of value was elaborated by Max Scheler (Scheler 1921). In his conception, values are expressions of informal pure sentience and, like other forms of pure insight, objective, unchanging, and the same for every person. Scheler distinguishes a total of four levels:

1. Values (and evaluations) of the senses according to pleasantness and unpleasantness.
2. Values (and evaluation) vital according to nobility (nobility) and vulgarity.
3. Values (and evaluations) spiritual (independent of corporeality), which can be divided according to type into:
   a) values (and evaluation) of the beautiful and the ugly – the basis of aesthetics;
   b) values (and evaluation) of the right (justified) – the basis of law;
   c) values (and evaluation) of the true and false – the basis of philosophy;
4. Values (and evaluation) in relation to the absolute according to holiness (sacredness) and unholiness (profaneness) – this evaluation is manifested by action in the form of a special kind of love that raises man to the sacred.

John Dewey also places value theory at the centre of his moral theory (Dewey 1939). His basic thesis is the openness of moral systems and their dependence on context. Moral action is thus always dependent on the situation in which the individual finds himself. In Dewey's conception, value is closely tied to the value judgments each person makes, which form the basis for their own value system. All value judgments must satisfy the condition of empirical verifiability. Value judgements are to be distinguished from evaluative judgements, just as evaluative judgements are to be distinguished from simple valuing. Value judgments alone are not sufficient for the values they produce to play a determining role in evaluating the world around us. To do this, it is necessary to define an end-state of value or end-in-view to which the evaluation would relate and which would play an adjudicating role. This assumes that the end-views exist before the evaluation itself. The evaluation

judgment is thus in a reciprocal relationship with the target view of value and its fulfilment.

Eduard Spranger (Spranger 1927) made an important contribution to value theory when he developed a typology of personalities (in the sense of ideal types) in terms of interests – that is, value preferences. He distinguished:

1. the theoretical person, for whom the highest value and interest is truth;
2. the economic man, for whom the highest value and interest is utility;
3. the aesthetic man, who is influenced by impressions and expressions and forms; thanks to these, his highest value and interest is harmony;
4. the social man, who above all professes love between people as the highest value;
5. the political man, who focuses his interests on the acquisition of power, which is his main value and goal;
6. the religious man, who subordinates his life and actions to the highest unity and views the world through the prism of the infinite.

Spranger's typology of values was gradually developed into one of the classic research instruments for value orientation (Allport et al. 1960) The idea of the test is based on a set of statements on which respondents are asked to take a position. The test is standardised on college students and allows respondents to be classified by type.

The author of probably one of the best-known concepts of values is Milton Rokeach. Based on his long-term research, he constructed an itinerary of twelve terminal and twelve instrumental values. Later, he expanded both of these groups with six more values (Rokeach 1973), and the result was a list of 18 goal values (comfortable and secure life, exciting life, sense of personal security, peace in the world, beauty and art, equality of opportunity, provid-

ing for and caring for family, freedom, happy life, inner harmony, mature love, welfare and security of the nation, life of pleasure, salvation, self-esteem, social recognition, friendship and wisdom) and 18 instrumental values (ambitious, open-minded, competent, cheerful, clean, courageous, forgiving/suffering, helping/helpful, honest, creative, independent, intellectual, rational, sensitive/loving, obedient, well-mannered, responsible and self-controlled). Due to the simplicity of application and the method of evaluation using simple correlations, Rokeach's concept is still in use.

Values as standards guide human behaviour in several ways. They lead to the formation of attitudes within social affairs and dispose the preference for political, ideological and religious systems. They are an important factor in the construction of self-presentation before others and help in judging the appropriateness of actions before others. Values are also key to comparing one's own morality and competence with that of others. They also enable one to present one's own beliefs to others and assist in rationally coping with personally and socially unacceptable feelings, attitudes, and actions (Rokeach 1968; 1973).

A different perspective is provided by Shalom H. Schwartz, who attempted to identify values that are shared by humanity across all cultures. His research instrument is now one of the most commonly used research methods in the area of values. Together with Wolfgang Bilsky (Schwartz and Bilsky 1987), he developed and empirically tested a scale of universal values and specified eight major motivational domains of values: enjoyment, security, achievement, self-orientation, self-control and conformity, prosociality, social power, and maturity. Schwartz subsequently elaborated on this concept and derived a scale of ten universal value types:

1. Power-oriented – social power, wealth, authority, public opinion – self-presentation, social recognition.
2. Success-oriented – ambition, influence, competence, success, intelligence, self-confidence.

3. Hedonistic/stimulating – pleasure, a life of joy, stimulating exciting life, diverse life, boldness.
4. Self-oriented – freedom, creativity, independence, choosing one's own goals, uniqueness, self-confidence.
5. Universalistic – equality, oneness with nature, wisdom, a world of beauty, social justice, openness, environmental protection, a world at peace.
6. Benevolent and kind – help, responsibility, forgiveness, tolerance, honesty, loyalty, mature love, true friendship.
7. Conforming – obedience, self-control, manners, respect for parents and elders.
8. Traditionalist – respect for tradition, piety, acceptance of place in life, humility, gentleness.
9. Security-oriented – national security (welfare of the nation), returning favours, providing for family, sense of material security, social order, health, decency and fairness.

The person under study is assigned to a value type based on the most significant preferences for these 56 values. The preferences are measured on a scale from -1 (completely insignificant value) to 7 (key value).

4.1.1 Methodology for measuring values

In the research, the results of which are presented in this book, values were measured in a direct, preference-scaled manner. Three kinds of methodological objections can be raised to this method of measurement, all of which are relevant and may to some extent reduce the validity of any measurement of values.

The first objection is based on the difference between the respondent's actual preference value and the measured preference, which is more likely to be influenced by the respondent's self-projection. Against this objection, it should be noted that in the case

of value preferences, it is arguable whether it is more important for the overall value orientation to recognise those values that the respondent perceives as important but cannot adequately fulfil in their life (hence the substitution of value fulfilment with abusive values) or actually lived values that directly influence behaviour. The authors of this book are convinced that there is always some blending of both kinds of values desired and respected in wishes and those actually professed. Both kinds influence and regulate human action and serve at least for moral correction.

The second objection is that measurement is influenced by concrete self-projection and, as a result, value preferences are lowered or, on the contrary, raised according to presumed social expectations due to external social pressure. This objection can be argued against quantitatively, namely that in the case of measuring overall value preferences in a society, it is not the specific measured level of preference that is crucial, but the overall vector of the direction of the value and the ratio of its preferences to those of other values or in particular groups of respondents divided according to sociodemographic or other factor(s).

A third legitimate objection is the relational nature of some values. A classic example might be the value of forgiveness, which might be perceived by some groups of respondents toward themselves (forgiveness is important because it is important that I be forgiven) and by other groups away from themselves (forgiveness is important because it is important that I be able to give forgiveness). The objection here is the inequality or imbalance between the two directions. Against this objection it can be argued that both directions (toward and away from self) can make equally great moral and psychological demands. Just as it can be difficult for someone to forgive another, it can also be difficult to accept forgiveness and learn to live with forgiveness. Forgiving oneself can present the same degree of difficulty (Enright 1994). This ambivalence can apply to virtually any value (loving and being loved, receiving and

giving, having friends and being a friend, etc.). Moreover, it is always influenced by the action of idealised value content that comes from religious, philosophical or worldview beliefs or from social expectations.

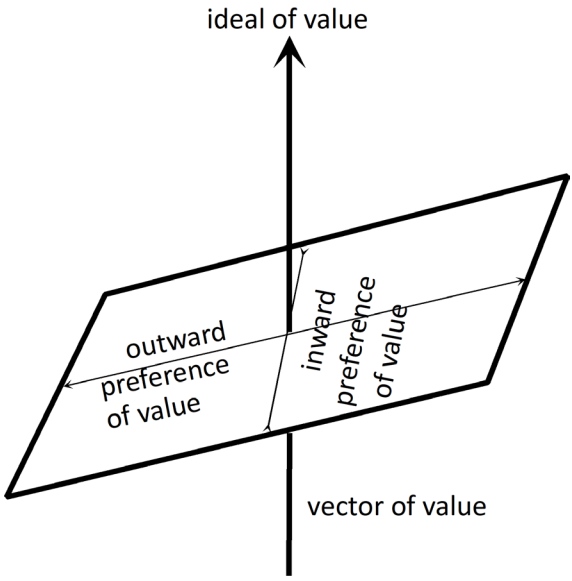


Figure 8: Ambivalence of value content

The measurement of variables containing value preferences was conducted consistently across values on continuous scales. All of these scales were constructed so that they could be analysed separately in relation to underlying sociodemographic factors or other factor variables. The scales are designed as continuous internally restricted scales from 1 to 10. One meant "this value / trait does not concern me and is foreign to me" and ten meant "this value / trait is very important to me and I fully identify with it". Technically, the measurement was made on a continuous scale with a sensitivity

set at 0.1 degree / one step to achieve the effect of continuity while maintaining the respondent's freedom to express their attitude[6].

An important issue in designing the research was the choice of values whose preferences were measured. In constructing the questionnaire, we relied on the Rokeach scales (Rokeach 1973), which we supplemented with selected values from the Schwartz itinerary (Schwartz and Bilsky 1987; Schwartz 1992; Schwartz and Bilsky 1990). The reason for choosing Rokeach's itineraries was primarily due to its division into terminal and instrumental values, with target values describing desired states and instrumental values describing modes of action and competencies. Rokeach further subdivides goal values into intrapersonal and prosocial values, and instrumental values into moral and competence values (Rokeach 1973). The classification of values into these subcategories was not completed by Rokeach himself, and the division was made by our research team when analysing the value measures. The application of the division has been used previously in other publications (Pospisil et al. 2022). We list the values measured in tables (Table 36 and Table 37). The system of dividing values into goal and instrumental is followed in the text for analyses, where merging the two

[6] The following measurement instructions were attached to the scale:
Please indicate your attitude towards each value or characteristic by marking its position on the line. A comma at the point you consider to be your position between complete rejection of the value/trait and complete agreement with it is sufficient. Feel free to choose even a low preference if it is true. No one will judge what you prefer. The point here is to answer truthfully what your true beliefs are regarding what is important to you.
Please indicate your position on this kind of threat by marking a comma on the line. Try to answer truthfully to yourself what your real belief is, how strongly you feel about this threat. On the left there is a low or no threat, on the right a very high threat.

This is how you indicate a value / characteristic that has no meaning to you, is unfamiliar to you.

Indicate the value/characteristic that is very important to you, which you fully identify with.

Indicate the value/characteristic which is of medium importance to you.

Indicate the value/characteristic which is important to you.

types of values for graphic representation would be vague for the reader due to their frequency.

Naturally, the ability to understand the meaning of a given concept is not axiomatic and depends on multiple variables – be it the age, education or cultural context of the respondent. For this reason, the interpretation of the data is approached with all due respect to this fact and possible interpretative frameworks of the concept are taken into account.

Table 36: Terminal values

TERMINAL values	
INTRAPERSONAL	**PROSOCIAL**
A comfortable life	Economic prosperity
Exciting active life	Equal opportunity of all
Happiness	Family security
Inner harmony	Freedom
Pleasure	Mature love
Salvation	National security
Self-respect, self-esteem	Social recognition
Wisdom	True friendship
Acceptance	World of beauty
Health	Respect for parents and the elderly

Table 37: Instrumental values – characteristics

INSTRUMENTAL values (charactestics)	
MORAL	**COMPETENCY**
Broad, open minded	Capable, competent
Clean	Ambitious
Forgiving	Assertive
Helpful	Courageous
Polite	Imaginative
Empathic	Independent
Responsible	Intellectual
Loving	Cooperative
Obedient	Self-controlled
Faithful	Authoritative, socially powered

From a formal point of view, the measurement of values was enclosed in two questions whereby the terminology of instrumental vs. terminal values was not maintained for respondents, but we use the term "values" for terminal values and the term "properties" for instrumental values:

a) What is your attitude towards the values listed below?
b) Indicate how important the characteristic is to you,

with each value included in these questions as specific sub-questions.

One-way ANOVA (Sheskin 2011) was used in the statistical analysis of the dependence of the values on the occurrence of abusive behaviour, with dependencies at the level of $p \leq 0.05$ considered statistically significant. Pearson's correlation coefficient was used in the analysis of the dependencies between the dimensions of threat and value preferences (Sheskin 2011). To determine statistical significance, Pearson's coefficient was transformed to a t-value and the dependency was tested at the $p \leq 0.05$ level (Sheskin 2011).

In the analysis of the relationship between substance abuse and value preferences, significant differences in value preferences for the group reporting substance abuse versus the control group of the non-abusing population were compared and graphed. In the case of the threat analysis, only the abusive group continued to be analysed and within this group the relationships between the stated type of substance abuse and the value orientations of the substance users were examined. For this analysis, only those value orientations that showed statistical significance at the $p \leq 0.05$ level were plotted.

4.1.2 The problem of validity and reliability in measuring value preferences

Ensuring the reliability and validity of the measurement of the values encounters several problems in practice, which were taken into account in the construction of the questionnaire.

The problem of validity lies mainly in the respondent's ability to understand the meaning of the concept. In measurement, it turns out that the ability to understand the meaning of a concept is not axiomatic and depends on several variables – be it the age, education or cultural context of the respondent. As an illustration, we would like to mention the value of eternal life. In our 2010 measurement of values in the context of research on the relationship between values and leisure (Pospíšil and Prokešová 2010; Šímová et al. 2010), contrary to all expectations, a high average score was measured for the value of eternal life in the population of adolescents or post-pubescents (age 11–16). The result was all the more surprising, as the preference for this value declined sharply in the following age group and then gradually increased with increasing age to a peak in the senior generation. A gradual increase in preference for this value would be consistent with the theoretical assumption. Therefore, the discrepancy between the theoretical expectation and the measured value was analysed and it was found that the value of eternal life for this age group correlated very strongly with the values of pleasure type and a life full of joy or an exciting life. In contrast, for the other age groups, correlations were found to other values, such as caring for loved ones or inner harmony, which are values for which this correlation is to be expected. The reason for this variation was the apparent misunderstanding of the concept of eternal life by a generation of adolescents who had not acquired or could not acquire a Christian cultural context during their lives and had not developed the content of this concept at all. Therefore, they substituted for it a relationship to a secure, prosperous, joy-filled

life. Therefore, when ensuring the validity of value preferences, it is always necessary to explain the meaning of the concept and check for understanding when measuring, as the same problem may occur with other values. In the area of values, this understanding is the key to determining their correct preference. Linked to the definition of values is the broader issue of understanding generalities as such. This question has been the subject of philosophical inquiry since the beginning of philosophy and is related to the problem of the relationship between individuality and generality.

The problem of the meaning and significance of concepts that we encounter here has been an important issue in analytic philosophy and logic for more than a century (Frege 1892), and L. Wittgenstein's claim that the limits of our language are the limits of our world is determinative here (Wittgenstein 2017, 6.124).

In terms of reliability, we encounter minor difficulties in measuring the values. The slope of values and value orientations is relatively stable, but over the long term, shifts in appreciation and overall value orientation do occur (Rokeach 1973). As Sak points out in his publication (Sak and Sakova 2004), modification of the value system occurs when social conditions change significantly, and the stability of different values varies in such cases. Since changes in value orientations are a long-term matter, it is verified that although individual measurements may vary within percentage points, the slope of each value has the same vector when measured repeatedly. Cherished and rejected values are such strong beliefs of the respondent that even if they carelessly fill in the continuous scales in the questionnaire, it is against their convictions to label a value they cherish as unimportant to them and vice versa.

It should be noted that a limitation in measuring values and value orientations specifically for the issue of substance abuse is that we did not, and in terms of the set research design could not, measure at this stage the effect of the level of use on value orientations. We are therefore unable to distinguish between respondents

who have an addictive substance as a substitute for a goal or a route to a goal, where the addictive substance still fulfils a substitution role, and a situation where the addictive substance becomes a value in itself (or a craving for it and a belief in its importance). We expect that the value orientations of these two groups of substance users will differ. A detailed analysis thus becomes the subject of further investigation.

4.2 Value consequences of substance abuse

For the analysis of the value consequences of substance abuse, respondents who reported using substances to an increased extent (frequently or to a greater extent) were selected from the sample. In terms of espoused values, family safety and health appear to be consistently the highest values for these users, with the strongest preference for these values among smokers. Conversely, the lowest value is eternal life/salvation.

Summary results for the comparison of value preferences are presented in the following two tables.

Table 38: Substance users' preferences for terminal values

Value	Alcohol (n=233)	Smoking (n=701)	Medicines (n=83)	Drugs (n=97)
Comfortable life	6.384549	6.366619	6.242169	6.901031
Exciting active life	6.341631	6.347504	5.560241	7.790722
Happiness	7.693133	7.992725	7.598795	8.160825
Inner harmony	7.108155	7.666619	7.112048	7.694845
Pleasure	7.727897	8.139800	7.489157	8.389691
Salvation	3.93133	4.014693	4.562651	4.196907
Self-respect, self-esteem	7.348498	7.670185	7.355422	7.726804
Wisdom	7.615451	7.873466	7.578313	8.159794
Acceptance	6.6897	6.907561	6.287952	6.140206
Health	8.729614	9.129672	8.808434	8.683505
Economic prosperity	7.685837	7.955920	7.856627	7.541237
Equal opportunity of all	6.38412	6.828531	6.748193	7.340206
Family security	9.004721	9.290585	8.920482	8.940206
Freedom	8.627897	8.672753	7.965060	9.223711
Mature love	7.624034	8.059201	7.789157	7.974227
National security	7.557082	7.579886	7.012048	6.727835
Social recognition	6.274249	6.339372	5.995181	6.380412
True friendship	8.511159	8.713837	8.304819	8.676289
World of beauty	6.93176	7.302710	7.633735	7.210309
Respect for parents and the elderly	8.240343	8.655777	8.650602	7.991753

In terms of trait preference, the most valued traits are helping/helpful, empathetic/understanding, responsible/conscientious, kind/loving, and independent/dependent, and these values are also most important to smokers. The least valued characteristic is having power/influence.

Table 39: Preferences for instrumental values (characteristics) of substance users

Characteristics	Alcohol	Smoking	Medicines	Drugs
Broad, open minded	7.209442	7.769472	7.268675	7.935052
Clean	6.863519	7.528816	7.524096	7.008247
Forgiving	6.746781	7.165906	6.784337	6.663918
Helpful	7.608155	8.166049	8.095181	7.626804
Polite	7.235622	7.570613	7.537349	7.142268
Empathic	7.393991	8.008417	7.637349	7.934021
Responsible	7.584549	8.157347	7.822892	7.517526
Loving	7.454936	8.149073	7.773494	7.885567
Obedient	5.642918	5.887589	5.673494	5.538144
Faithful	5.972103	6.198431	6.172289	5.959794
Capable, competent	7.473391	7.661626	7.127711	7.735052
Ambitious	6.241202	6.699715	6.392771	7.037113
Assertive	6.345494	6.834522	6.491566	7.394845
Courageous	6.613305	7.003424	5.909639	7.464948
Imaginative	6.199142	6.611270	6.238554	7.159794
Independent	7.522747	7.853923	7.443373	7.651546
Intellectual	6.81073	7.129672	6.946988	7.508247
Cooperative	7.140343	7.564622	7.345783	7.263918
Self-controlled	6.627039	6.926391	6.336145	6.672165
Authoritative, socially powered	4.796996	4.881598	5.026506	4.895876

In the following text, we will focus in more detail on the different types of abuses and the value preferences of their users. For the purposes of this analysis, respondents who reported having experience of the abuse are compared with those respondents who reported that the problem does not affect them personally and never affected them in the past.

4.3 Value consequences of alcohol abuse

As early as 1979, Gorsuch and Arno showed that values that support group interests are negatively related to problematic alcohol consumption and occasional drinking, whereas tolerance of deviance is positively related to positive attitudes toward drinking (Gorsuch and Arno 1979). In a review study, Rudnev and Vauclair (Rudnev and Vauclair 2018) show that the values of openness to change (hedonism, stimulation, and to some extent self-direction) are positively related to alcohol consumption and the values of protection (safety, conformity, and tradition), conformity, and tradition are negatively related. The inclination towards hedonism is also confirmed by other studies (Dollinger and Kobayashi 2003).

In his study, Mayto documents that the more adolescents use alcohol, the more they emphasise self-centred or person-oriented terminal values, and at the same time the more they emphasise self-actualizing or competence instrumental values. (Mayto 1989) The reason, according to Ostafin, is obvious. Drinking alcohol is generally associated with pleasure-seeking and access-seeking motives, but is incompatible with values emphasising self-control, as well as with the tendency to avoid and prevent harm (Ostafin et al. 2003). Students who consume more alcohol attach more importance to interpersonal values and less importance to intrinsic and extrinsic values, and are also more susceptible to interpersonal affect. Students who drink less attach greater importance to social identity than do students who abstain from alcohol (Kropp et al. 2004).

In the studied population, a statistically significant difference was identified between alcohol abusers and non-abusers on a total of fourteen characteristics. All of these preferences are assessed below for respondents with alcohol withdrawal. The trait with the lowest mean score was obedient/committed. The trait clean (in the moral sense) then achieved the greatest difference in trait preference.

There were no statistically significant differences in attitudes towards the traits able/competent (p=0.948885), creative/imaginative (p=0.334662), independent/autonomous (p=0.627934), educated/intellectual (p=0.263660), and having social power/influential/authoritative (p=0.979786).

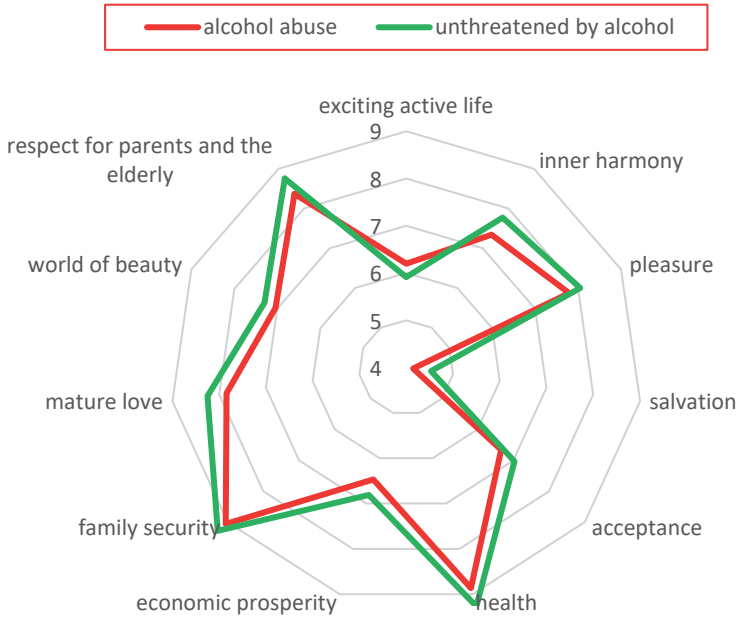


Figure 9: Preference for instrumental values (traits) in alcohol abstinence

Respondents with abuse assigned different weights to eleven values, with the greatest difference in preferences noted for the value of internal harmony. The value of active exciting life / fun is the only value that abusers have higher in their hierarchy than the non-abusive population. Alcohol consumption is also associated at the level of value preferences with the desire for fun and excitement; in contrast, it is negatively associated with responsible and conforming behaviour.

There was no statistically significant difference between the populations for value preferences in the values of comfortable life (p = 0.072667), happiness (p = 0.710132), self-esteem (p = 0.060626), wisdom (p = 0.388813), economic security (p = 0.086626), freedom (p = 0.669152), national security (p = 0.127231), social recognition (p = 0.118574), friendship (p = 0.302213).

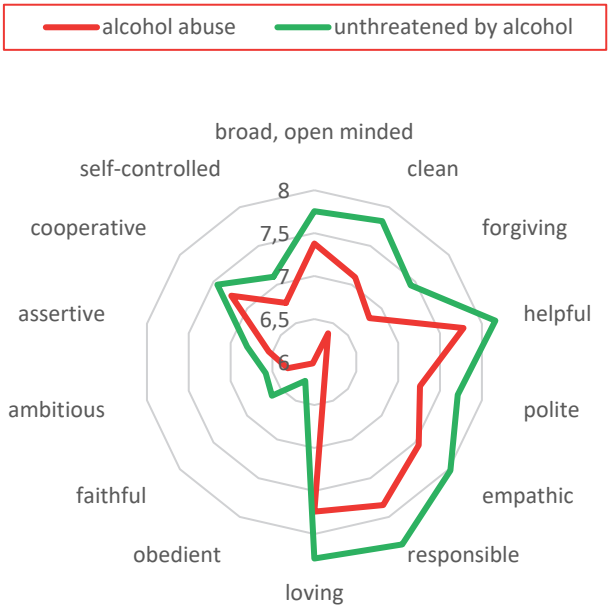
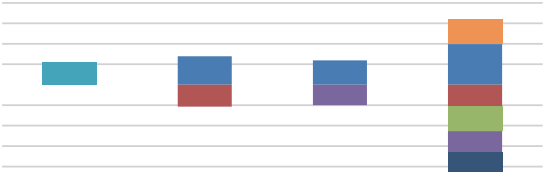


Figure 10: Preference values for alcohol abstinence

The relationship between feeling threatened by alcohol abuse and preferences for traits and values is evident in the following graph (Figure 11). Three values and traits are positively associated with feeling threatened in at least one of the domains: comfortable living, kind/loving, and purposeful/ambitious. In contrast, a negative relationship exists between feeling threatened and self-esteem,

clean (in the moral sense), responsible/conscientious, creative/creative.



	health	family	community	economy
imaginative				-0,097377198
ambitious				0,119201364
loving	0,109986173			
responsible			-0,09993298	-0,104383442
clean				-0,121946416
self-respect, self-esteem		-0,107243818		-0,104962693
a comfortable life		0,138927025	0,119109727	0,198479404

Figure 11: Perceived threat of alcohol and users' terminal value preferences

4.4 Value consequences of the use of tobacco, nicotine and related products

Compared to non-smokers, smokers attribute significantly higher preferences to the values of freedom, independence and negative self-definition towards obedience (Kristiansen 1985). Smokers care more about being "flexible" or "unrestricted". The value of being "broad-based" is then inversely proportional to general health behaviour and direct risk. In this context, there is an interesting finding that adolescents who value health and academics are less likely to abstain from cigarettes and alcohol, but conversely, those who place a higher value on the value of friendship are significantly more likely to abstain (Nieh et al. 2018). Values of hedonic satis-

faction are more likely to be associated with favourable attitudes toward smoking, whereas values of idealism are associated with unfavourable attitudes toward smoking (Chang 2005). In contrast to these hedonic values, smokers are less likely to attach importance to values of security, esteem, and a sense of belonging compared to non-smokers, as suggested by Kropp's findings (Kropp et al. 1999).

Comparing value preferences as a function of the level of abstinence, we conclude that the priority given to the terminal values of health, family security, a comfortable life, a world at peace, a sense of achievement, an exciting life, mature love, pleasure, social recognition, national security, and salvation is statistically significantly different for experimenters, daily tobacco users, and non-users. Experimenters place significantly higher importance on terminal values of health and a world at peace compared to daily users. Daily users place significantly higher importance on the values of feeling fulfilled, mature love, and salvation than do experimenters with tobacco. Non-tobacco users place significantly higher value on family security, a world at peace, a sense of fulfilment, and salvation compared to experimental users. In contrast, abstainers emphasise values such as health, family security, a world at peace, salvation, and national security more than reported by daily users (Mayto and Nagel 1990).

In our research, statistically significant differences in trait preferences between smoker and non-smoker populations were observed in only six cases. The independent / self-reliant trait was the only trait rated higher by smokers than by the non-smoking population. The largest difference in preferences was measured for the trait believing/trusting. The value submissive / dependent has the lowest preference among smokers.

Differences in preferences for the traits open/helpful/willing/understanding a different point of view ($p = 0.859968$), helping/helpful ($p = 0.404282$), tactful/polite ($p = 0.093001$), empathetic/understanding ($p = 0.597425$), responsible/conscientious ($p = 0.194628$),

kind/loving (p = 0.654566), capable/competent (p = 0.667259), goal-oriented/ambitious (p = 0, 770364), assertive/able to assert his/her opinion without infringing on the rights of others (p = 0.744650), courageous/brave (p = 0.766732), educated/intellectual (p = 0.354728), cooperative (p = 0.354728), disciplined/self-controlled (p = 0.082034), having social power, influential/authoritative (p = 0.613698) were not identified as statistically significant.

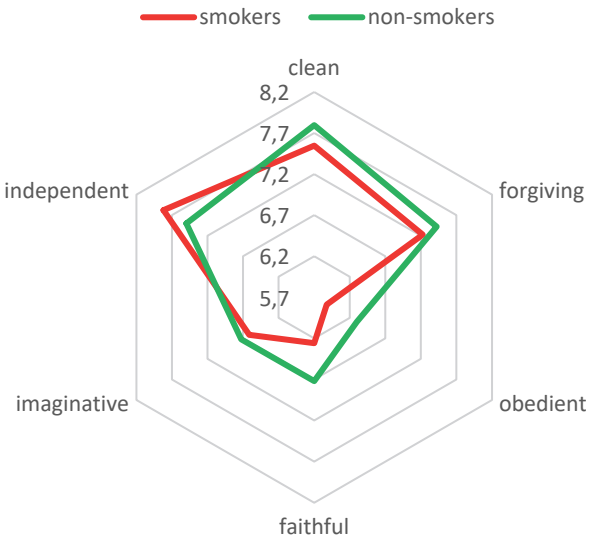
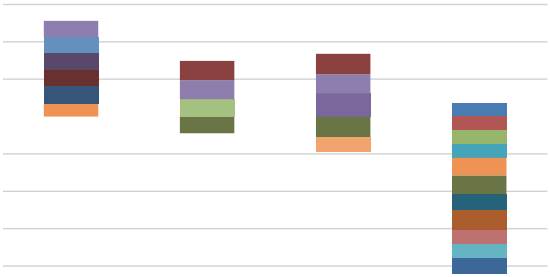


Figure 12: Preference for instrumental values (characteristics) when abusing tobacco, nicotine and related products

Also, for value preferences, the population of smokers and non-smokers differed on only six items. Smokers, compared to non-smokers, place more emphasis on the values of an active and exciting life, fun, happiness, family safety, freedom, and friendship. The only value that smokers rank lower than non-smokers is the value of eternal life (life after death), salvation.

There are no statistically significant differences in the population in attitudes toward the values of comfortable life (p = 0.074447), inner harmony (p = 0.910049), pleasure, joy (p = 0.297279), self-esteem (p = 0.484496), wisdom (p = 0.340197), acceptance by others, sense of belonging (p = 0.083271), health (p = 0, 913425), economic security (p = 0.328009), equal opportunity, social equality (p = 0.762227), mature love (p = 0.515430), national security (p = 0.768367), social acceptance (p = 0.839801), beauty in nature or art (p = 0.472088), respect for parents and elders (p = 0.177131).

Figure 13: Target preferences for abstinence from tobacco, nicotine and related products



	health	family	community	economy
authoritative, socially powered		0,103252438	0,108740412	
intelektual				-0,082972862
independent			-0,079562079	
imaginative				-0,071498421
faithful	0,086893253	0,101906837	0,10271372	
obedient		0,092436038		
polite				-0,075677339
helpful	0,083952012			
broad, open minded				-0,108620401
world of beauty				-0,083320882
mature love	0,091565099			
freedom		-0,089723124	-0,109924559	-0,100882127
family security	0,085832975			
economic prosperity	0,092193804			
wisdom	0,071243965			-0,094889306
self-respect, self-esteem				-0,072162433
salvation			0,123935328	
pleasure				-0,075959735
inner harmony				-0,07304185
a comfortable life				0,073797637

Figure 14: Perceived risk and value preferences of tobacco, nicotine and related products users

The perception of threat from tobacco, nicotine and related products is associated with a greater number of values and characteristics than is the case for alcohol. Most associations can be identified for economic threat, but where perceived threat is positively associated only with the value of a comfortable life. In contrast, for perceived threat in the health domain, there is a positive relationship for

six value orientations: wisdom, economic security, family security, mature love, helping/helping, and believing/trusting. Believing/trusting is also positively associated with family and social threat. The value of having social power is also positively associated with these two areas.

4.5 Value consequences of the abuse of medicines and medicinal products

Theoretically, grasping the value orientations of respondents who abuse medicines and pharmaceuticals was probably the most difficult task for us. Despite extensive searches involving the entire research team, we were unable to find any literature reporting on the value attitudes of this category of respondents. Part of the problem lies in the terminology used, whereby by the term drug the researchers may mean both medicines and medicinal products, i. e. legal substances as well as illegal drugs. According to studies focusing on the value preferences of patients with mental illness, a group of respondents where drug abuse occurs, there is a preference for values such as power, achievement and tradition/conformity, and conversely a lower preference for hedonism among these people (Arens et al. 2022; Sortheix and Schwartz 2017; Hanel et al. 2018; Maercker et al. 2015; Jarden 2010). We therefore tested the assumption of a preference for these values.

As was the case for alcohol, this group of respondents has no preference for the trait higher than the non-abstinent population. The largest difference in mean scores was measured for the value courageous/brave.

There were no statistically significant differences in the population's attitudes toward the traits clean ($p = 0.330497$), helping/helpful ($p = 0.912038$), tactful/polite ($p = 0.564444$), empathetic/understanding ($p = 0.097020$), believing/trusting ($p = 0.138177$), and

goal-oriented/ambitious (p = 0.523819), assertive/able to assert their opinion without infringing on the rights of others (p = 0.240256), creative/imaginative (p = 0.134762), independent/self-reliant (p = 0.462292), educated/intellectual (p = 0.385684), cooperative (p = 0.698377), socially powerful/influential, authoritative (p = 0.155377).

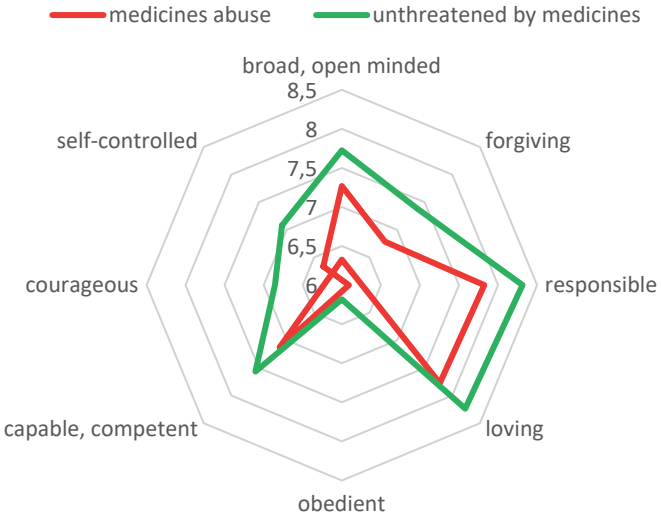


Figure 15: Preference for instrumental values (properties) for abused drugs and medicines

As with traits, the abusive population has no preference for values higher than the general population. The most significant difference in the groups studied is in the value of acceptance by others/feeling of belonging. This value is the value least preferred by respondents with abuse.

Differences in preferences for the values comfortable life (p = 0.435641), active exciting life, fun (p = 0.167440), happiness (p = 0.383430), eternal life (life after death), salvation (p = 0.821414), self-esteem (p = 0.138716), wisdom (p = 0.081392), economic security

(p = 0.879502), equal opportunities, social equality (p = 0.924632), mature love (p = 0.072895), social acceptance (p = 0.197167), camaraderie, friendship (p = 0.237983), beauty in nature or art (p = 0.156242), respect for parents and elderly (p = 0.734600) are not statistically significant in the studied populations.

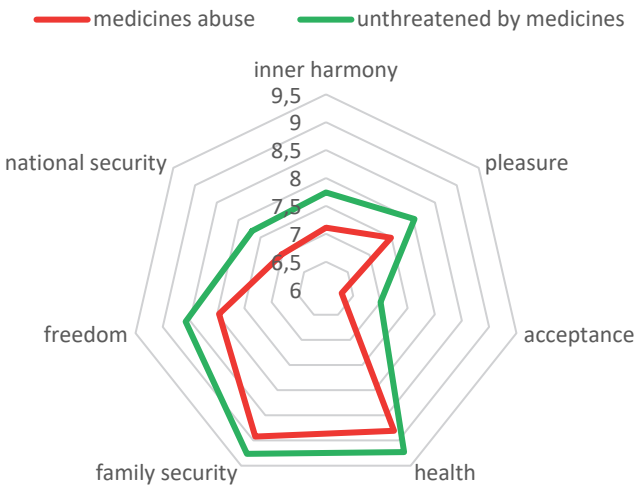


Figure 16: Target preferences for abstinence from drugs and medicines

The only positive relationship identified was between the value of empathetic/understanding and feeling threatened by abusive medication in the health domain. Conversely, a negative relationship is defined between feeling threatened in the area of family and family relationships and a preference for the values of active exciting life and fun, pleasure, joy and respect for parents and elderly people. In the social domain, there is a negative relationship between the degree of this threat and the value of active exciting life and fun. The value of family security is negatively related to feelings of threat in the economic domain.

	health	family	community	economy
empathic)	0,230570935			
respect for parents and the elderly		-0,224016579		
family security				-0,230364774
pleasure)		-0,248658816		
exciting active life		-0,232232555	-0,24379969	

Figure 17: Perceived threat from medicines and medicinal products and the preferences of its users' values

4.6 Value consequences of illegal substance abuse

Kurtines (Kurtines and Gewirtz 1991) notes in his book that the attention of researchers in the area of the values-substance abuse nexus has focused primarily on the adolescent target group. He notes, however, that although numerous studies have documented the existence of differences in value attitudes between illegal drug users and the general population, it is not clear whether there is a direct relationship between value orientations and the tendency to use illegal drugs, an area in which he sees a major knowledge gap.

According to Beech (Beech and Katz 1980), the value systems held by illegal drug users, which they perceive as antithetical to society's values, consist of three themes: peace, aesthetics and humanism. Although this group of illegal drug users is often perceived

by society as deviant, they appear to adhere to the literal meaning of these cultural ideals. Sak's (Sak 2000) research highlights the changing values of addicts, where the initial state is the same for addicts and the general population, but changes over time. Analysing the values of "interesting work", "friendship" and "education", the author concludes that the development over time is similar for all three values. While for non-addicted youths it remains virtually the same over time, for addicts all three values decline in their preferences. In a study concentrating on the values associated with marijuana use among college students, it was found that heavy marijuana users valued broadmindedness and imaginativeness more and docility less than non-users and light users. Non-users rated family safety higher than light and heavy users, and heavy users considered freedom more important than non-users (Mercer and Kohn 1977).

The qualities of being clean (in the moral sense), forgiving, tactful/courteous, responsible/conscientious, and obedient/devoted were valued less by the population with illegal drug abuse than by the population without such abuse. Conversely, people with illegal drug use place a high value on the qualities of being open/accommodating/willing to understand a different point of view, goal-oriented/ambitious, assertive/able to assert their opinion without infringing on the rights of others, courageous/brave, creative/imaginative and independent/self-reliant.

There were no statistically significant differences in the population in attitudes towards the traits helping/helpful ($p = 0.098264$), empathetic/understanding ($p = 0.573155$), kind/loving ($p = 0.274570$), believing/trusting ($p = 0$, 105994), capable/competent ($p = 0.522608$), educated/intellectual ($p = 0.507352$), cooperative ($p = 0.859489$), disciplined/self-controlled ($p = 0.062712$), socially powerful/influential/authoritative ($p = 0.215106$).

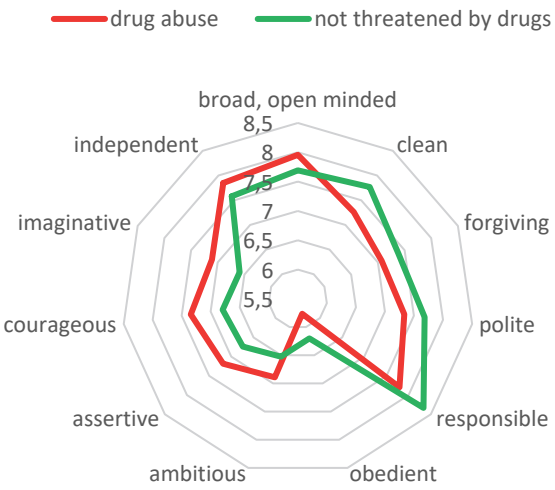


Figure 18: Preference for instrumental values (characteristics) for illegal substance use

Illegal drug abuse is associated with a higher preference for the values of a comfortable life, an active and exciting life, happiness, pleasure/joy, equal opportunity/social equality, and freedom. Conversely, this population has lower preferences for the values of acceptance by others/sense of belonging, health, national security, and respect for parents and the elderly.

The values of inner harmony ($p = 0.153558$), eternal life (life after death), salvation ($p = 0.177463$), self-esteem ($p = 0.079979$), wisdom ($p = 0.290540$), economic security ($p = 0.151418$), and family security ($p = 0.158572$), mature love ($p = 0.773391$), social acceptance ($p = 0.493578$), companionship, friendship ($p = 0.198789$), and beauty in nature or art ($p = 0.165491$) showed no statistical differences in the compared populations.

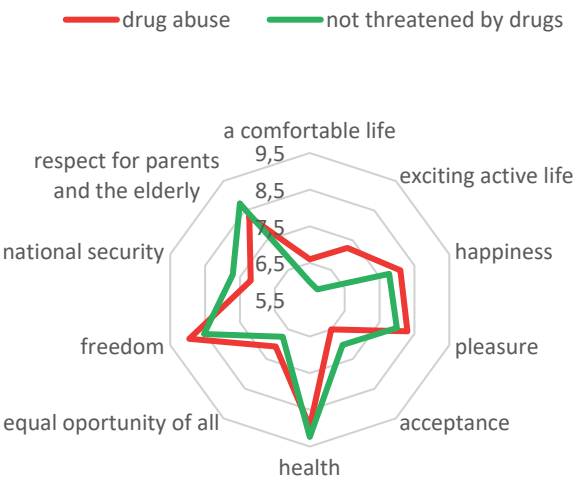
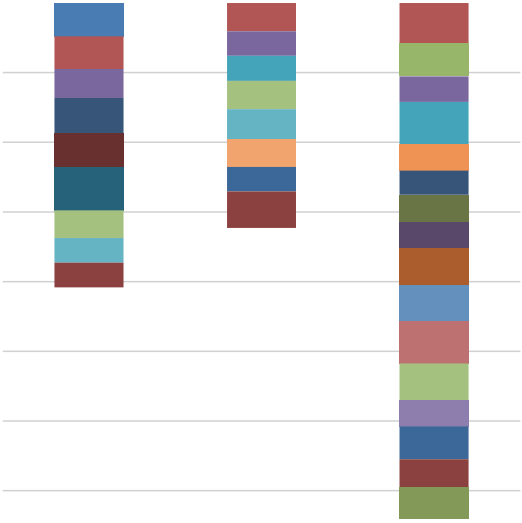


Figure 19: Target preferences for illegal substance use

No associations were found for illegal drug abuse between feeling threatened in health and value preferences. All value preferences that were found to be associated showed a negative relationship.

In terms of correlations between perceived threat from a given addictive substance and specific value orientations, it appears that values that refer to a desire for adventure, varied experiences and escape from becoming norms tend to be negatively related. That is, the more the respondent feels threatened along a given dimension, the less emphasis they place on that value. Values such as active and exciting life, courageous/brave, open/accepting, creative/creative, open/accepting and freedom take a back seat when the respondent feels threatened in a given dimension. In contrast, values symbolising an undisturbed life of abundance, such as the values of a comfortable life, eternal life, and economic security, tend to be positively related to perceived threat. The more a respondent desires these values, the more threatened they feel along the dimensions.



	health	family	community
intelektual			-0,223464737
imaginative	-0,176769694	-0,261672044	-0,199987504
assertive		-0,175958749	-0,234753927
ambitious		-0,199095361	
capable, competent	-0,176804498	-0,215426787	
polite			-0,187720333
helpful	-0,198663983	-0,202784203	-0,264532147
forgiving			-0,30374213
clean			-0,253123938
broad, open minded			-0,270237993
true friendship	-0,311018298		
mature love			-0,183660215
freedom			-0,199661436
family security	-0,238504119		
health	-0,256643728		-0,173244347
acceptance			-0,186499714
wisdom		-0,180332249	-0,30681279
pleasure	-0,208334531	-0,175442728	-0,183386888
inner harmony			-0,235098916
happiness	-0,234469357	-0,204082634	-0,291738297
exciting active life	-0,239580779		

Figure 20: Exposure to illegal drugs and user value preferences

5 Social prevention of substance abuse

Social prevention in the field of substance use is part of the policy on addictive behaviour, which is defined as a comprehensive and coordinated set of prevention, education, treatment, social, regulatory, control and other measures, including law enforcement measures, implemented at international, national, regional and local levels. The main conceptual document in the application of measures to prevent and reduce harm resulting from substance use, pathological gambling and the overuse of modern technologies in Czech society is the National Strategy for the Prevention and Reduction of Harm Associated with Addictive Behaviour 2019–2027 (Leštinová 2019). At the same time, social prevention in the field of substance use is part of the Health 2020 (MoH 2014) and Health 2030 (MoH 2019) strategies.

The current National Strategy document (Leštinová 2019) builds on the previous strategy from 2010–2018, whose strategic objectives were:

- to reduce the rate of experimental and casual substance use, especially by young people, and to reduce the rate of gambling among children and youth;
- to reduce the rates of problem and heavy substance use and problem gambling in the population;
- reduce the risks associated with substance use and problem gambling for individuals and society;
- reduce the availability of addictive substances, especially for young people, strengthen the legal regulation of gambling.

In terms of substance abuse, the new period paper notes with regret that rates of substance use in the adult population are not falling and are at a relatively high level. While the rate of legal substance use by children and young people is declining, it remains at a relatively high level compared to other European countries. The availability of alcohol and tobacco is still very high and has not changed much, even for minors. The availability of controlled illegal drugs remains unchanged.

Compared to the original strategy, the new document focuses on other topics besides alcohol, tobacco, illegal drugs and gambling that have not yet been addressed in a coordinated way, in particular the abuse of psychoactive drugs and the abuse of modern technologies. In doing so, it respects that addictive behaviour is not a matter of strong or weak will, which can be influenced only by the individual's decision or only by proper education and prevention, and thus it takes a comprehensive and interdisciplinary view of addictive behaviour as a problem based on the bio-psycho-socio-spiritual model of addiction.

Although the quality and availability of primary risk behaviour prevention programmes in schools is increasing, their quality and scope are highly uneven across regions. In addition, prevention programmes in local communities towards parents and the civil society are virtually non-existent, and thus low health and legal literacy of the population in the field of substance use persists (e. g. persistent myths about the health benefits of alcohol, misinformation about impunity for possession of small amounts of drugs, the health consequences of the use of illegal substances, etc.) (Leštinová 2019).

The aim of the new strategy is therefore:
"Preventing and reducing in particular the health, social, economic and intangible harms resulting from substance use, gambling and other addictive behaviours, and the existence of legal and illegal markets for addictive substances, gambling and other products with

addictive potential through a sustainable set of modern, effective, mutually coordinated and evidence-based educational, preventive, therapeutic, social, legislative, economic, punitive and other measures" (Leštinová 2019).

This is what the strategy, which will now also address the issue of medicines containing psychoactive substances, abuse of the internet and new technologies, and the issue of cannabis and cannabinoids, aims to achieve by:

- strengthening prevention and raising awareness;
- ensuring a quality and accessible network of addiction services;
- effective regulation of markets for addictive substances and addictive products;
- strengthening the management, coordination and effective financing of drug policy.

Health 2020 has included substance abuse prevention under priority area 4, which aims to contribute to the creation of conditions for the development of resilient social groups, i. e. communities living in an environment that is favourable to their health. The subsequent Health 2030 document, in its objective 1.2, places particular emphasis on increasing health literacy in this area, stressing the need for early diagnosis and brief intervention in the area of addictive behaviour.

Universal prevention programmes target the general population rather than selected risk groups or individuals, with one of the main target groups for universal prevention being the school population. According to the Addictions Synthesis Report, there is a long-term shortage of selective and indicated prevention programmes (selective prevention covers 6% of schools and indicated prevention 2% of schools). Certified indicated prevention programmes are missing entirely in the Central Bohemia, Karlovy Vary, Hradec Kralove and Vysočina regions (Chomynová 2022).

The main strategic documents for prevention in the Ministry of Education are the National Strategy for Primary Prevention of Risky Behaviour in Children and Youth for the period 2019–2027 and its Action Plan.

This strategy (MoEYS 2019) distinguishes between specific and non-specific prevention as follows:

- Specific primary prevention of risk behaviour – activities and programmes that are specifically aimed at preventing and reducing the occurrence of particular forms of risk behaviour in pupils.
- Non-specific primary prevention of risk behaviour – all activities that are not directly related to a specific type of risk behaviour, but help to reduce risks by promoting healthy lifestyles and the acquisition of positive social behaviour through the meaningful use and organisation of leisure time, such as leisure, sport and leisure activities and other programmes that lead to the observance of certain social rules, healthy personal development, and responsibility for oneself and one's actions.

Within the framework of social prevention, there is a significant lack of the use of social educators (Potmešilová 2013; Sobková et al. 2015; Šándorová and Faltová 2015) or social workers (Matulayová and Matulayová 2006) who could work in schools or in cooperation with schools. These social environment professionals understand the mechanisms of the influence of the social environment on individuals, know the dynamics of social groups, and have knowledge of the aetiology of risks to children and youth. Their priority is to create a healthy social system in the school and thus contribute to the creation of optimal conditions for the healthy development of pupils and students. Their work therefore principally involves, among other things, the primary prevention of socially pathological phenomena, including toxic addiction and related delinquent behaviour.

A number of media campaigns take place each year, including events on the occasion of World No Tobacco Day, the Dry February campaign aimed at preventing alcohol use in the adult population, the Alcohol Under Control media campaign, the Alcohol Responsibly campaign, the I Drive, I Drink Non-Alcoholic Beer campaign, the Let's Have Fun About Alcohol.cz project, and the Stay in Control campaign on illegal drugs, alcohol and computer games. The National Monitoring Centre operates websites for the public that address the issue of addiction, such as the:

- National Smoking Cessation Support Site (koureni-zabiji.cz);
- National Site for the Promotion of Alcohol Reduction (alkohol-skodi.cz).

The National Health Information Portal, which includes a section on Addictions and Addictive Substances, has just been launched by the Institute of Health Information.

At the same time, there is an extensive network of addiction services covering the whole spectrum of problems related to substance use and other addictive behaviours, consisting of facilities and programmes of different types of services (health, social, educational and pedagogical).

5.1 The problem of social prevention in terms of the different dimensions of threat

The health risk of substance abuse is strongly felt in the case of abusing all three types of legal highs. It is evident that media campaigns and established prevention programmes have been very successful in this respect. Specifically, the most sophisticated and intensive campaigns in this area are those for the prevention of the abuse of tobacco, nicotine and related products. The health risks are communicated to the population in a very graphic and intensive

way on every pack of cigarettes purchased. In the health dimension, therefore, respondents logically feel most at risk from smoking. However, it is alarming that they do not feel a similar level of threat when abusing illegal drugs, where respondents feel the least threatened of all the dimensions examined. Threat in the economic domain is felt most strongly for tobacco abuse. Respondents with drug abuse perceive the least degree of threat in this domain. The area of family life is perceived as threatening especially for alcohol abuse. The explanation seems logical. Alcohol becomes a health risk only gradually over a period of prolonged excessive consumption. But before it destroys the body, it destroys the personality (which, presumably, many of the respondents see – they know of families that have broken up because of alcohol). Tobacco, although it is also a legal addictive substance and its social tolerance is high, affects a person precisely in the area of physical health, but has little effect on mental health. Thus, tobacco does not pose a direct threat to the family; it does not destroy the family relationally. The other drugs have a clearly negative connotation (with perhaps the minor exception of marijuana) and their role in devastating health and the family is well known – both as a consequence and as a cause[7].

From a social work and social education perspective, the most significant area of threat is the social area. Reflection on threat in this area, which encompasses both community and work relation-

[7] On the other hand, in his synthesis of data from dozens of studies on the relationship between family structure and juvenile delinquent behaviour, Mucchielli (2001) points out that the only strong association has been found between family breakdown and drug use, and light drugs in particular for boys (less so for girls). Moreover, this association is shown to be limited for certain ages: boys from broken or separated families consume light drugs more than those from complete families only in the 14–17 year old group (no difference for 18–21 year olds). This means that these children start their consumption earlier. According to the interpretation put forward by the author, in most incomplete families the father is absent, and the adolescent boy is thus placed in a "male" position in the family. Drug abuse then functions in some environments (not necessarily within the family, abuse occurs within peer groups) as a rite of passage into the more adult phase of life. As part of the research, the authors tested whether parental supervision plays a role. However, no significant difference was found between children from complete and incomplete families.

ships, suggests that it is severely underestimated by respondents. Relatively low average values of the threat of substance abuse in the area of social relationships present a challenge for the helping professions (Vágnerová 2014), where the relatively high tolerance of substance use in society is counterproductive to social substance abuse prevention programmes. A summary can be found in the summary chart of perceptions of threat in each dimension (Figure 21).

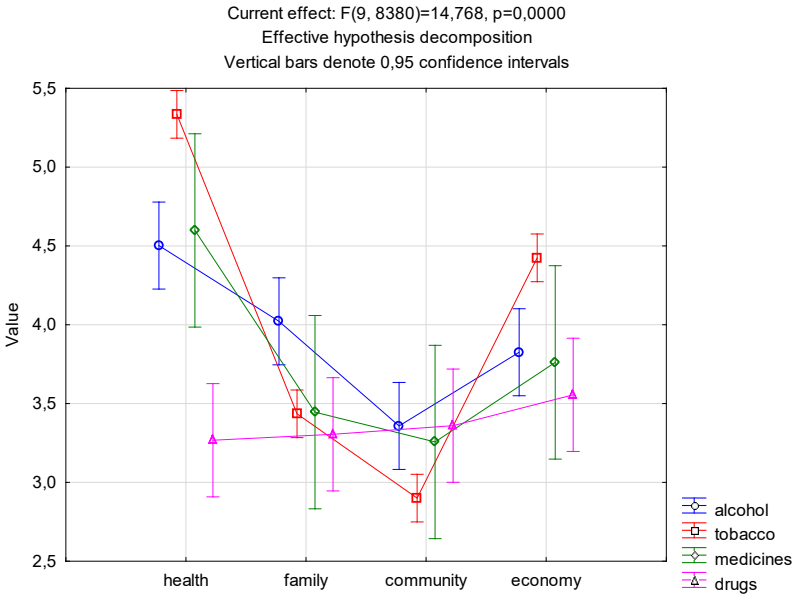


Figure 21: Level of perceived threat to addictive substances

Changing the social climate in relation to addictive substances, especially alcohol and drugs, is clearly a long-term task and will require intensive social, educational, medical and media support[8].

8 In the contemporary society of late modernity, the media function as key actors involved in the creation of social reality, while at the same time fulfilling the function of generalized second agents in the process of socialization. The dominant contents disseminated by the mainstream media are essential not only for the formation of

In the case of alcohol in particular, our society faces high tolerance, even downplaying, and a strong underestimation of the existing risks. Alcohol consumption and smoking are part of many social rituals, including, to name but a few, toasting on special and festive occasions, "going for one", socialising by asking for a "light", taking a smoking break as an opportunity to escape from work duties during working hours, etc. Unfortunately, all of these social and cultural rituals reinforce the role of alcohol and tobacco in society and thus undermine the action of prevention programmes, which are in a kind of crisis and their effectiveness is relatively low:

1. The low number of selectively targeted prevention programmes (Chomynová 2022).
2. The relatively low didactic level of the courses offered, where methods are often chosen that are not suitable for the target group.
3. The wrong direct focus of the programmes on the specific issue of addiction and abuse.

The third of these causes appears to be a key problem for the effectiveness of prevention programmes. This is because prevention programmes seek primarily to directly inform at-risk individuals and groups about the nature of the risk and its health, social and economic consequences, and less so on the much more challenging issue of behaviour change. All the information that prevention programmes provide is certainly useful and is a *sine qua non* for the success of any prevention. On the other hand, the design of the

value attitudes and the internalization of social norms, but also for the perception of deviations from them (Sedláková 2021). Through the images presented, the media become carriers of symbolic exclusion that participate in defining the socially acceptable and becoming unacceptable, the normal and the pathological, our and the different/other. Thus, the media function not only as a means of labelling and exclusion, but also as significant disseminators of these exclusions. (Sedláková 2007) As Sedláková (Sedláková 2022) shows with representative data for the Czech population, the importance of content spread and consumed through social networks has been increasing in recent years.

programmes is based on the belief that good education in a particular area will in itself lead to changes in behaviour and attitudes. This assumption, although already advocated by J. A. Komenský (Komenský 1992), is largely unfounded. Behaviour is influenced not only by knowledge but also by values, habits and customs, traditions and other aspects related to culture and socialisation. Of these factors, values can be considered the most important, acting as motivational factors par excellence (Kluckhohn 1951; Parsons 1991). Values can act as a mediator between a specific threat and behavioural change in the case of prevention programmes.

5.2 Use of the value context of abuse and threat in the development of social prevention programmes

Changing value preferences and, consequently, changing value orientation is not a short-term task, primarily because of the relatively high stability of value beliefs (Rokeach 1973). Nevertheless, as Sak shows in his research (Sak and Saková 2004), this change is possible, although it requires either a relatively long and systematic action or a radical transformation of society. In most cases, it may not even be so much a matter of changing values and their priorities, but rather of infusing these values with adequate content and avoiding the substitution of false content, which are often just addictive substances, for real content, goals, and the paths leading to them. In contrast to current prevention education programmes, which in most cases act only on the cognitive component, values-based prevention programmes can influence the attitudes and consequently the behaviour of those for whom they are intended. It is clear that prevention programmes for different target groups (children, adolescents, young adults, middle-aged and older adults and the elderly) must be designed differently, taking into account their needs and objectives.

Values and value orientations, as a reflection of a given culture, are at the core of the socialisation and enculturation process that determines and directs the behaviour of the individual. According to Parsons' theory (Parsons 1991), values are a direct prerequisite for social action. At the same time, Dorothy points out that it is important that the value orientation is not only intellectually based, but that it is also fixed emotionally (Dorotíková 1998). According to Juříček, "the value ranking can be intervened in through the process of 'apperception' (intervention through oppositional redefinition of meaning, affirmation of an alternative value, threatening of an alternative value) and 'valorisation' (devaluation, otherwise discarding, inhibitory hyper-valorisation, and intentional or spontaneous restructuring of value related to the experience and development of the individual)" (Juříček 2012). The change of values (replacement of one value ranking by another, as a result of a purposeful intervention of the individual in the established value system, e. g. through upbringing, change of social status, etc.) then affects the overall change of personality.

Working with values is therefore a great opportunity for social pedagogy and social work.[9] Here, the great potential of all types of school and social service institutions to work with values in different target groups becomes apparent. Particular opportunities for working with values are presented by non-formal education (Pospíšilová 2010b), which we consider more suitable than formal education in terms of formation. It should be noted that in many cases it is not necessary to change the value ranking as such, but only to show a non-deviant way of fulfilling value orientations.

[9] Although we agree with P. Sak (Sak and Saková 2004) that it is difficult to impose values on people through social engineering or lectures, values education and the emphasis on values in the pedagogical process is possible. If values were only the centre of gravity of socialisation and the synthesis of the social field, then the same would be true for all other personal and behavioural characteristics, which of course can be modified by education or self-education. We thus view the positive influence of nurture and self-education with sober optimism.

Thus, the aforementioned crisis of prevention programmes may be related to the absence of work with value orientations. Current primary prevention programmes are implicitly based on the belief that the value of health is first or very high in the hierarchy of values and that the fulfilment of this value will always be prioritised. Health in this context is seen very broadly in line with the 1984 World Health Organization (WHO) definition of health as complete bio-, psycho-, socio- and spiritual well-being, not just the absence of disease. This assumption leads primary prevention programmes to focus mainly on communicating information about the health risks that lead to a decline in this well-being. However, this notion hides a potential pitfall. In fact, addictive substances almost never cause immediate or short-term detectable harm on any of the above dimensions of health. They even seem to have the opposite effect – their use induces well-being in the short term. The consequences that inevitably follow are so distant in time that they appear nebulous, often insignificant and easily influenced or corrected. Another risk factor is a strong belief in medical progress that makes the long-term consequences of actions appear quite negligible and easily resolved in the future. For this reason, the health and social consequences are not reflected as a current threat and the benefits of substance use come to the fore. All these factors cause changes in the prioritisation of values, including the value of health, within the personal value scale (Schwartz 2007, pp. 170–171). This opens the way to substance use as a substitution pathway to meet goals that are set by other values, e. g. freedom, independence, an exciting life, etc.

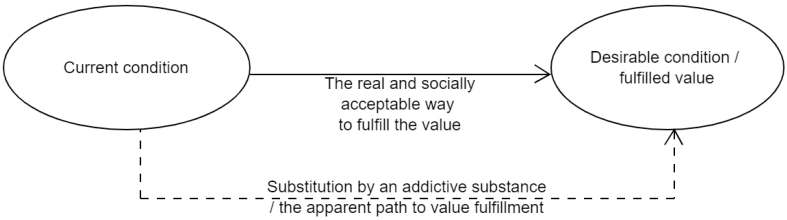


Figure 22: Real and apparent path to value fulfilment

We believe that the change that needs to be achieved through prevention programmes lies in the transformation of two components of the relationship between substance abuse and values:

1. In the clarification of the content of individual values and the relation of this content to its apparent fulfilment through the use of an addictive substance; we believe that if the content of values (e. g. freedom, exciting life, courage, creativity, etc.) is properly understood, accepted and internalised, the idea of their fulfilment through an addictive substance becomes unrealistic. Thus, addictive substances cease to substitute for realistic pathways to the fulfilment of these values.
2. In challenging the attainability of the goal/value fulfilment by replacing the addictive substance or other generally unacceptable means with a realistic and socially acceptable pathway.

In addition to the two components above, it should be added that the prevention programme cannot be understood as primarily educational or socialisation. As stated above, it would be naive to believe that by explaining all the concepts to the clients of the programmes and by having them understand the content of these concepts, behavioural change will occur. This causal link is neither self-evident nor common. Prevention programmes, as we understand them, must be designed as primarily educational, with the aim of shaping the client's personality. While education

necessarily includes an educational component, it also goes well beyond it. Moreover, prevention programmes cannot be thought of as merely applying the norms of society to an individual who is at risk of deviant behaviour, either actual or potential. Society itself is neither a bearer of values nor a bearer of goodness. The process of socialisation can achieve, at most, the identification of the individual with the values and norms of society, but not transcend them. In contrast, the process of education is directly linked to the self-transcendence (transcendence) of the person towards goals that often can neither be inferred nor fully justified by the needs and demands of society. Prevention programmes must therefore be educational and not merely educational or socialising. Education here goes well beyond both. In the case of attitudes towards substance abuse, socialisation alone cannot be relied upon. The goals set to reduce susceptibility to deviant behaviour can only be derived from goals that often go beyond the current state of society. While the normative requirements resulting from these goals are subject to social debate, they often have to be set beyond the current social consensus. Their justification and prescriptive nature are often difficult to defend in a democratic society.

The above points can serve as a general starting point in the design of value-based prevention programmes, which should maintain the following content structure and balance:

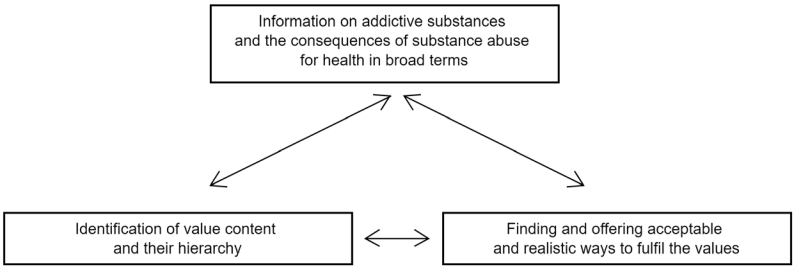


Figure 23: Proposed structure of the prevention programme

Values positively associated with substance abuse, especially illegal drug and alcohol abuse, refer to a desire for adventure and varied experiences (active and exciting life, adventurous/brave, open/welcoming, creative/creative). This connection is in line with all assumptions about the value orientations of people with drug abuse, where the drug symbolises a new journey, an uncharted adventure, fulfilling the need to break away from stereotypes, a rebellion against stereotypes and the dull greyness of everyday life. Logically, in line with these values that saturate the experience of adventure and discovering the new, the previously unknown, the group of respondents with an abusive use of illegal drugs and tobacco, nicotine and related products also attach importance to the values that lead to an escape from norms (freedom, equality). A correlation can also be traced in the desire for pleasure, joy and happiness. The positive effects of drugs, as they are generally described and understood, directly promise the fulfilment of these values. A specific category is the value of a comfortable life, which is highly valued by people abusing illegal substances. Illegal drugs are a way to escape from responsibilities, they are a symbol of carelessness. All of these values are highly preferred by abusers and, conversely, lowly rated by people who have had problems with the substance in the past but are currently abstinent. Thus, value preferences are dominated by a preference for other values. We see a major challenge for social pedagogy interventions in the positive correlation of the value of friendship/camaraderie with abusive use of tobacco, nicotine and related products. It is again confirmed that the problem of Czech society is not only the high tolerance to abusive use, but that abusive use is a social norm. The quest for social bonding leads to this abusive behaviour. Abuse of legal substances is a social issue, a way of making contacts, a way for people to get closer to each other.

A parallel can be drawn with the research of Sak (Sak 2000), which demonstrates the absence of life goals and plans. Compared to the "normal population, this absence is up to three times more

prevalent in addicts. Sak therefore suggests that the absence of intentionality facilitates the onset of drug careers and conversely these careers destroy human intentionality. Deviant youth live in a smaller space-time environment than normal youth, and their embeddedness in higher social units is objectively and subjectively lower. The inclination to crave values that fulfil immediate needs that do not require long-term planning or high goals is therefore logical. The higher preference for friendships also illustrates this narrowing of space-time. On the other hand, many addictive substances do not merely promise an escape from obligations, but instead promise higher work or life performance. Therefore, it is logical that illegal substance abuse is also related to performance values such as assertiveness and goal-orientation, or independence/autonomy.

At first glance, the most striking correlation is between the value of family security and the abuse of tobacco, nicotine and related products. Looking at the data in more detail, we find that this inclination applies to two age groups. The first such group is those aged 50–54 (z(L): 2.32*). An interpretation is offered that this group of respondents is from a generation for whom cigarette smoking symbolises a path to stress reduction. At the same time, this is a group targeted by disinformation campaigns aimed at creating fear and anxiety. The correlation is therefore logical. The second group of respondents for whom tobacco abuse is strongly associated with the value of family security is people in the 20–24 age group (z(L): 3.43***). This association is considerably more difficult to explain. It can be assumed that there is a purely coincidental association between the two needs of people in the mentioned age group. The first of these needs is integration into a young adult group, with smoking serving as an inappropriate tool for social integration. This is an age group whose use of tobacco products is limited only by moral and health and economic constraints. The second need is the security of one's own, usually oriented family

(Woszidlo 2016) or the awareness of the risks associated with the security of a planned family procreative (Gerhardt 2016).

Values that are intensely reinforced in former substance users and conversely weakened in current users are: eternal life (life after death), salvation, kind, loving, beauty in nature or art, believing, trusting, responsible, conscientious, forgiving, mature love (not just falling in love), national security, wisdom, cooperative, clean (in a moral sense), helping, helpful, assertive, able to get one's point across without infringing on the rights of others, helpful, helpful, open-minded, accommodating, willing to understand a different point of view, acceptance by others, sense of belonging, educated, intellectual, tactful, polite, and inner harmony.

From a prevention perspective, it is very inspiring to focus on the differences in value preferences between people with current abstinence, those without abstinence and those who have shown signs of abstinence in the past but are currently abstinent. We have these data for alcohol, tobacco and illegal drug users. Only values that are statistically significant at the 0.05 significance level were compared.

Summarising these results, we conclude that there are values that are intensely reinforced in respondents who have managed to quit their problematic substance use and are abstinent. They cherish these values even more than people who avoid these substances for life. On the other hand, there are also values that former substance users significantly less prefer compared to current users and the general population. Thus, it would seem that reinforcing these value preferences in secondary prevention is an appropriate way to bring about lasting behavioural and attitudinal change. How and to what extent to reinforce these values in primary prevention should be a major issue for discussion. It is true that numerous studies have shown a convergence of value preferences among different population groups. For example, the congruence between the value

orientation of juvenile offenders (then in prison) and entrepreneurs is shown in Sak's research (Sak and Sakova 2004).

The design of specific prevention programs and their future implementation will require a deeper analysis of each value in the context of the social functioning of the at-risk groups. This analysis, its implications and, above all, on its basis, the design of prevention programmes that are dedicated to the effective reinforcement of values that influence attitudes towards substance abuse will be one of the key tasks of social work and social pedagogy.

In the case of the analysis of the value preferences of alcohol users, the research sample comprised a total of 3,040 respondents belonging to the category of abstainers or moderate consumers, 166 respondents who had a problem with alcohol in the past but are currently abstinent, and 233 respondents who drink alcohol frequently and to a higher degree.

The most significant difference between respondents in the abstainers or moderate consumers category and those who drink alcohol frequently and to a higher degree is the difference in preferences for the values clean (in the moral sense), kind/loving, responsible/conscientious, forgiving, and believing/trusting. These values are also the ones in whose preferences former consumers differ most from current ones. The values of being wise, educated/intellectual and assertive/able to assert one's opinion without infringing on the rights of others are then even more strongly preferred by ex-consumers than by people who fall into the categories of abstainers or moderate consumers.

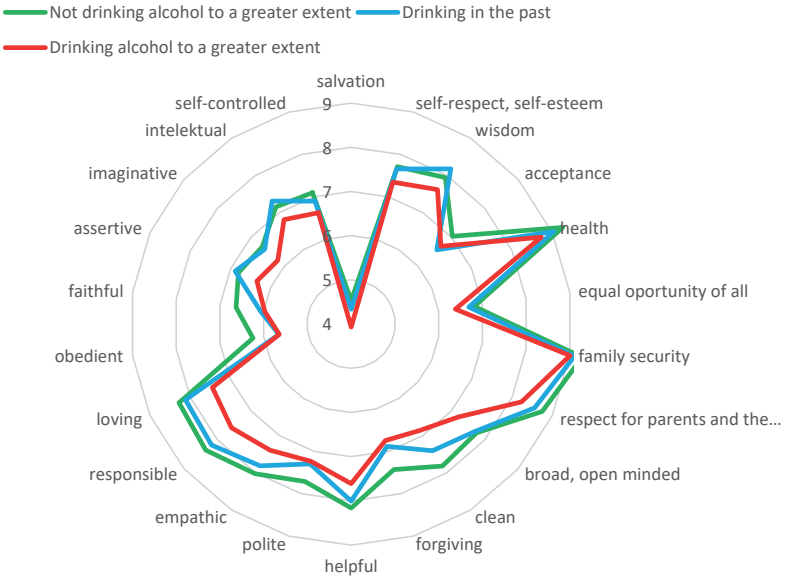


Figure 24: Value preferences by level of alcohol use

The value preferences of smokers were analysed in a research cohort comprising a total of 2,086 non-smokers, 605 ex-smokers and 701 regular smokers.

The most pronounced differences in value preferences between non-smokers and regular smokers are measured in the values of eternal life (life after death), salvation, believing/trusting, obedient/submissive. Non-smokers place much more importance on these values than regular smokers. Comparing the preferences of ex-smokers and regular smokers, we then see the greatest differences in the values of an active exciting life, fun comfortable life, and having social power, influential/authoritative. These values are highly valued by smokers. Compared to non-smokers, these values are even less important to ex-smokers. On the other hand, the values of respect for parents and elders and responsible/conscientious

are values preferred by ex-smokers more than both smokers and non-smokers.

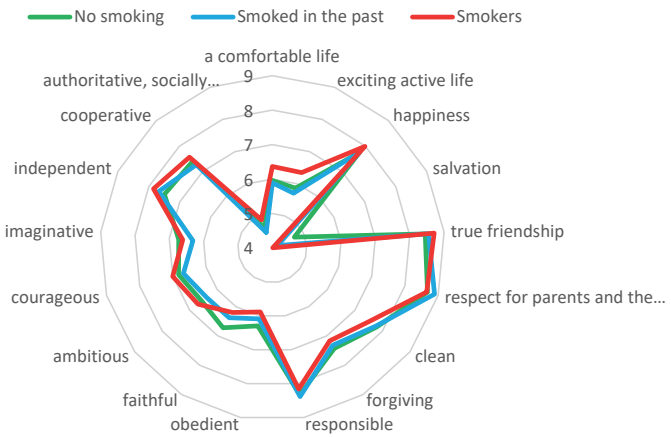


Figure 25: Value preferences by level of abstinence from tobacco, nicotine and related products

The population for the analysis of the value preferences of drug users in this case consisted of a total of 3,208 respondents who neither use nor have ever experimented with drugs, 32 respondents who have used illegal drugs regularly in the past but are currently abstinent, and 97 respondents who are regular users of illegal drugs.

Respondents who currently use illegal drugs differ most in positive value preferences from those who do not use drugs and have never experimented with them in the values of active exciting life, fun, comfortable life, freedom. Conversely, they have significantly lower preferences for the values of national security, acceptance by others/feeling of belonging, responsible/conscientious, clean (in the moral sense), respect for parents and the elderly, and forgiving.

Compared to current illegal drug users, ex-users prefer the values of beauty in nature or art, forgiving, national security, and

helping/helpful, and conversely undervalue active exciting life, fun, comfortable life, equal opportunity, social equality, and freedom. The values of beauty in nature or art, forgiving and helping/helpful are not only preferred more strongly by ex-users than by current users, but even more so than by people who do not use or have never experimented with drugs. In contrast, the values of a comfortable life and equal opportunities/social equality are rated lower by ex-users compared to these two groups of respondents.

If one method of prevention is to offer ways and show ways to fulfil risk value orientations through activities not related to substance use, then another way may be to consistently reinforce and promote values that are negatively related to substance use. These are values such as health (not only as a declared value, but actually perceived value), acceptance by others, responsible, obedient. In the logic of the definition of prevention according to the Ministry of Education (MoEYS 2019), efforts to reinforce values that correlate negatively with substance abuse are non-specific primary prevention. Pointing out ways to fulfil the needs of one's value orientations that correlate positively with substance abuse rather than by satisfying cravings through an addictive substance could then be both specific and non-specific prevention, depending on the concept.

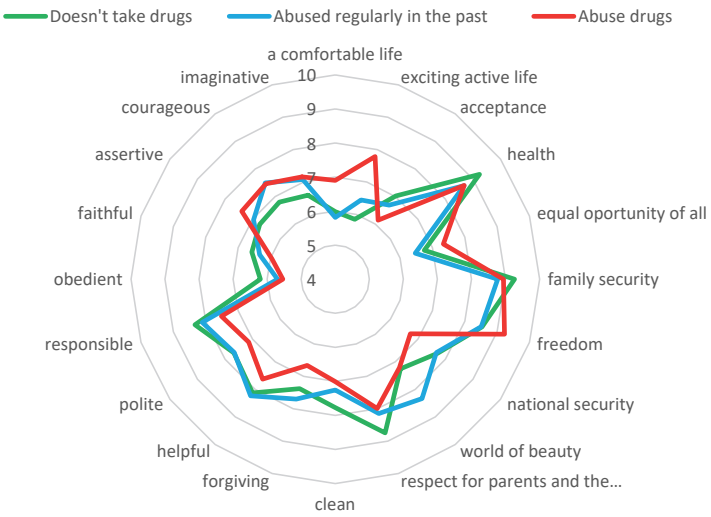


Figure 26: Value preferences by level of illegal drug use

In place of the conclusion…

Substance abuse poses a challenge to any society, not only in terms of the consequences it has for the health and social integrity of individuals, but above with respect to the values a society shares and the culture it lives.

The research presented in this book provides many answers, those that are specific, relating to particular groups or describing the type of abuse chosen and reflecting on the perceived risk of danger it causes. In the area of exploring values in relation to abusive behaviour and perceived threat, this book even makes a significant new contribution to the debate. At the same time, however, it must be acknowledged that it poses at least as many new questions as the book answers. Thus, it brings new challenges and ideas for research on the relationship between abusive and socially pathological phenomena in general. All of these challenges and suggestions undoubtedly require further research and more detailed analysis. In this sense, this book fulfils the role of a kind of introduction to the issues. If further research is forthcoming, and especially if the value context of abusive behaviour and reflection on threat become topics of longer-term investigation, then this book has fulfilled one of its main objectives. It was not, however, the only aim.

Among the results presented in this book, there are several alarming findings that have natural and logical explanations, but which nonetheless constitute significant obstacles to successful abusive prevention. In conclusion, let us mention two that arguably have the greatest impact on the success of prevention. The first of

these is the low perceived threat of substance abuse in the social sphere – i. e. among people in one's own community, society, among people at work, and between people in collectives during leisure activities. While in the area of family relationships, for example, alcohol abuse is perceived by respondents as a strong risk (probably because they have experienced that for a number of families from nearer or further afield, an alcoholic in the family has been a pathway to the breakdown of marriage and other family relationships), this threat is not perceived in the social context. It does not cause social exclusion to such an extent, nor does it very often lead to a loss of social status. In fact, drinking alcohol and smoking in particular appear to be socially acceptable and part of normal social integration. Related to this is the second finding we recall here, namely the high preference for the value of friendship in relation to the use of tobacco and tobacco products. In fact, this is the most significant example of a value-abuse relationship where the value of health is overlooked and the health consequences are deliberately suppressed or downplayed, all in favour of successful social integration.

These two examples show that primary prevention, as currently conceived, is unlikely to be sufficiently effective. It can only be made more effective by integrating a values-based context into prevention programmes and by ensuring that prevention not only seeks to prevent abuse but also has an educational effect.

Summary

The book presents the results of part of a broadly defined international Czech-Slovak interdisciplinary cross-sectional survey conducted before the Covid-19 pandemic (collection 2018–2019) and during the pandemic (collection 2020–2021).

The first chapter introduces the reader to the broad context of substance use risks. Following this theoretical anchoring of the issues under study, the reader is presented in subsequent chapters with the results of a sociodemographic analysis of attitudes towards substance abuse, the results of an analysis of original measures of reflection on the risk of substance abuse in four domains that are key to the social functioning of each substance user: 1. Health and possible health risks associated with substance abuse. 2. Economic risks associated with substance abuse. 3. Social relationships, status, and ties in the local community and society. 4. The perceived threat along these four dimensions is analysed concerning the value preferences of respondents.

The threat of addictive substances is strongly perceived, especially in the area of health, and media campaigns and established prevention programmes have been very successful in this respect. We are led to this interpretation by the fact that respondents feel most threatened by smoking in the health dimension but do not feel a similar threat when abusing illicit drugs. Threats in the economic dimension are similar to those in the health dimension and are felt most strongly for tobacco abuse. Again, respondents with drug abuse perceive the lowest degree of threat in this domain. The

area of family life is perceived as threatening, especially for alcohol abuse. The explanation seems logical. Alcohol becomes a health risk only gradually with prolonged excessive consumption. However, before it destroys the body, it destroys the personality (many respondents see/know of families that have broken up because of alcohol). Tobacco, although it is also a legal addictive substance and its social tolerance is high, affects a person precisely in the area of physical health but has little effect on mental health. Thus, tobacco does not pose a direct threat to the family, i. e. it does not destroy the family relationally. The other drugs have a negative connotation (with perhaps the minor exception of marijuana), and their role in devastating health and the family is well known, both as a consequence and as a cause. While respondents recognise a substantial risk in the area of family relationships, this threat is not seen in the social context. It does not cause social exclusion as strongly, nor does it very often lead to a loss of social status. Drinking alcohol and smoking, in particular, appears to be socially acceptable and part of standard social integration.

The results show that values that refer to a desire for adventure and varied experiences (active and exciting life, courageous/brave, open/receptive, creative) are positively associated with substance abuse. This connection is in line with all assumptions about the value orientations of people with drug abuse, where the drug symbolises a new journey, an uncharted adventure, fulfilling the need to break away from stereotypes, a rebellion against stereotypes, and the dull greyness of everyday life. Logically, in line with values that saturate the experience of adventure and discovering the new, the unknown, the group of respondents with the abuse of illegal drugs and tobacco, nicotine, and related products also cherishes the values that lead to an escape from norms (freedom, equality). A correlation can also be traced to the desire for pleasure, joy, and happiness. The positive effects of drugs, as they are generally described and understood, directly promise the fulfilment of these

values. A specific category is the value of a comfortable life, which is highly valued by people abusing illicit substances. Illicit drugs are a way to escape from responsibilities; they symbolise carelessness. All of these values are highly preferred by abusers and, conversely, rated low by people who have had problems with the substance in the past but are currently abstinent. Thus, value preferences are dominated by a preference for other values. A significant challenge for interventions in the field of social pedagogy is the positive correlation of the value of friendship/friendship with abstinence from tobacco, nicotine, and related products. It is again confirmed that the problem in Czech society is not only a high tolerance for abusive behaviour but that abusive behaviour is a social norm. The quest for social bonding leads to this abusive behaviour. The analysis of value preferences thus again confirms the initial assumption that abusing legal substances is a social issue, a way of making contacts, and a way for people to get closer to each other.

Primary prevention, as currently conceived, does not seem to be sufficiently compelling. The authors of the book take the view that its effectiveness can only be increased by integrating a values-based context into prevention programmes and ensuring that prevention does not only aim to prevent abuse but also has an educational effect. Indeed, as the research presented here shows, some values are intensely reinforced in respondents who have managed to stop their problematic substance use and are abstinent. They cherish these values even more than people who avoid these substances for life. On the other hand, there are also values that former substance users significantly less prefer compared to current users and the general population. Thus, reinforcing these value preferences as part of secondary prevention is an appropriate way to bring about lasting behavioural and attitudinal change.

The design of specific prevention programmes and their future implementation will require a more in-depth analysis of each value in the context of the social functioning of at-risk groups. This

analysis, its implications, and, above all, the design of prevention programmes dedicated to the effective reinforcement of values that influence attitudes towards substance abuse will be one of the critical tasks of social work and social pedagogy.

Souhrn

Monografie prezentuje výsledky parciální části široce pojatého mezinárodního česko-slovenského mezioborového plošného výzkumného šetření, realizovaného v období před pandemií Covid-19 (sběr 2018–2019) a v období pandemie (sběr 2020–2021).

První kapitola čtenáře seznamuje s širokým kontextem rizik užívání návykových látek. Po tomto teoretickém ukotvení studované problematiky jsou čtenáři v následných kapitolách prezentovány výsledky sociodemografické analýzy postojů k abúzu návykových látek, výsledky analýzy originálních měření reflexe ohrožení těmito látkami ve čtyřech oblastech, jež jsou klíčové pro sociální fungování každého jejich uživatele: 1. zdraví a případná zdravotní rizika spojená s abúzem návykových látek, 2. ekonomická rizika spojená s abúzem návykových látek, 3. rovina sociálních vztahů, postavení a vazeb v místní komunitě a společnosti a 4. ohrožení abúzem návykových látek v oblasti rodiny a rodinných vztahů. Vnímané ohrožení v těchto čtyřech dimenzích je analyzováno v souvislosti s hodnotovými preferencemi respondentů.

Ohrožení návykovými látkami je silně pociťováno zejména v oblasti zdraví. Je evidentní, že v tomto ohledu jsou velmi úspěšné mediální kampaně i zavedené preventivní programy. K této interpretaci nás vede fakt, že v dimenzi zdraví se respondenti cítí nejvíce ohroženi kouřením, podobnou míru ohrožení ale při abúzu drog nelegálních nepociťují. Ohrožení v oblasti ekonomické je podobně jako v dimenzi zdraví nejvíce pociťována u abúzu tabáku. Nejmenší míru ohrožení v této oblasti pociťují opět respondenti s abúzem

drog. Oblast rodinného života je vnímaná jako ohrožující zejména u abúzu alkoholu. Vysvětlení se zdá logické. Alkohol se rizikem pro zdraví stává postupně až v období dlouhotrvající nadměrné konzumace. Dříve však, než zničí tělo, destruuje osobnost (což – pravděpodobně – mnozí z respondentů vidí – vědí o rodinách, které se kvůli alkoholu rozpadly). Tabák, ačkoliv je to taktéž legální návyková látka a jeho společenská tolerance je vysoká, ovlivňuje člověka právě v oblasti fyzického zdraví, na zdraví duševní má vliv nepatrný. Tabák tak nepředstavuje přímé ohrožení pro rodinu, neničí rodinu po vztahové stránce. Ostatní drogy mají jednoznačně negativní konotaci (snad s drobnou výjimkou marihuany) a jejich role při devastaci zdraví i rodiny je všeobecně známá – a to ať už jako následek, nebo příčina. Zatím co v oblasti rodinných vztahů je respondenty rozeznáno silné riziko, v sociálním kontextu toto ohrožení spatřováno není. Nezpůsobuje totiž tak silně sociální vyloučení ani velmi často nevede ke ztrátě společenského postavení. Dokonce se zejména popíjení alkoholu a kouření jeví jako společensky přijatelné a je součástí běžné sociální integrace.

Výsledky ukazují, že s abúzem návykových látek jsou pozitivně spjaty hodnoty, které odkazují na touhu po dobrodružství, a pestrých zážitcích (aktivní a vzrušující život, odvážný/statečný, otevřený/vstřícný, kreativní/tvořivý). Toto spojení je v souladu se všemi předpoklady o hodnotových orientacích lidí s abúzem drog, kdy droga symbolizuje novou cestu, nepoznané dobrodružství, naplňuje potřebu odpoutání se od zažitých stereotypů, je projevem rebelie vůči zažitým stereotypům a nudné šedi každodennosti. Logicky v souladu s těmito hodnotami saturujícími zážitek dobrodružství a poznávání nového, dosud nepoznaného si skupina respondentů s abúzem nelegálních drog a tabákových, nikotinových a souvisejících výrobků cení i hodnot, jejichž naplňováním dochází k úniku od norem (svoboda, rovnost). Souvislost pak lze vysledovat i v bažení po potěšení, radosti a štěstí. Pozitivní účinky drog tak, jak jsou obecně popisovány a chápány naplnění těchto hodnot přímo

slibují. Specifickou kategorii tvoří hodnota pohodlný život, která je vysoce hodnocena lidmi s abúzem nelegálních návykových látek. Nelegální drogy jsou cestou, jak uniknout z povinností, jsou symbolem bezstarostnosti. Všechny tyto hodnoty jsou vysoce preferovány u osob s abúzem a naopak nízko hodnoceny u osob, které s danou látkou měli problémy v minulosti, ale v současné době abstinují. V preferencích hodnot tak u těchto osob převažuje příklon k jiným hodnotám. Zásadní výzvu pro intervence v oblasti sociální pedagogiky spatřujeme v pozitivní korelaci hodnoty kamarádství/přátelství s abúzem tabákových, nikotinových a souvisejících výrobků. Znovu se potvrzuje, že problémem české společnosti není jen samotná vysoká tolerance k abúzu, ale že abúzus je sociální normou. Bažení po společenské vazbě k tomuto abúzu vede. Analýza hodnotových preferencí tak opět potvrzuje výchozí předpoklad, že abúzus legálních návykových látek je společenskou záležitostí, způsobem navazování kontaktů, způsobem, jak se lidé navzájem sbližují.

Primární prevence, tak, jak je v současné době koncipována, zdá se, není dostatečně účinná. Autoři monografie zastávají stanovisko, že její účinnost lze zvýšit pouze integrací hodnotového kontextu do preventivních programů a dosáhnout toho, že prevence nebude usilovat pouze o zabránění abúzu, ale bude rovněž působit výchovně. Prokazatelně totiž, jak ukazují výsledky zde prezentovaného výzkumu, existují hodnoty, které jsou intenzivně posíleny u respondentů, kteří dokázali své problematické užívání návykové látky ukončit a abstinují. Těchto hodnot si cení dokonce více než lidé, kteří se těmto látkám vyhýbají celoživotně. Naopak existují i hodnoty, které abstinující bývalí uživatelé oproti aktuálním uživatelům, ale i oproti běžné populaci, výrazně upozaďují. Zdá se tedy, že posilování právě těchto hodnotových preferencí v rámci sekundární prevence je vhodnou cestou k trvalé změně chování a postojů.

Návrhy konkrétních programů prevence a jejich budoucí realizace bude vyžadovat hlubší analýzu každé jednotlivé hodnoty v kontextu sociálního fungování rizikových skupin. Tato analýza,

její dopady a na jejím základě především vytvoření takových programů prevence, které by byly věnovány účinnému posilování hodnot ovlivňujících postoje k abúzu návykových látek, bude jedním z klíčových úkolů sociální práce a sociální pedagogiky.

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The book maps the reflection of social and health threats of substance abuse in the population of the Czech Republic. The dependence of the perception of substance abuse on age, gender, and education is analyzed. The book also offers an analysis of the relationship of these threats to the value preferences of substance users, including the use of this value context in prevention and intervention in social work and social pedagogy. Attention is given to four key groups of addictive substances: alcohol, tobacco and tobacco products, drugs and medicines, and illicit drugs.