

PREVALENCE OF PSYCHOACTIVE SUBSTANCE USE IN GENERAL EDUCATION SCHOOLS

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Abstract. The prevalence of psychoactive substance use in mainstream schools is a significant public health and social problem that raises serious concerns about pupils' health, academic performance and future prospects. In Lithuania, as in many other countries, research is being carried out to determine the extent of psychoactive substance use among schoolchildren. Therefore, the aim of this study is to investigate the prevalence of psychoactive substance use among pupils of general education schools in Panevėžys. The method of the study is a questionnaire survey. The research instrument is a questionnaire developed by the authors of the study. Participants of the study - pupils of 5th, 7th, 9th and 11th grades of general education schools in Panevėžys. Sample size - 1030 respondents. The results of the survey showed that there is a problem of psychoactive substance use among pupils in grades 5, 7, 9 and 11. More than half of the respondents indicated that their school has students who use drugs. The age of those who have tried psychoactive substances ranges from 9 to 18 years, while the average age of adolescents who have tried smoking for the first time is only 13 years. The main places where students get intoxicated were found to be near or at school, on the street and in other public places.

Keywords: pupils, electronic cigarettes, drugs, alcohol

INTRODUCTION

Psychoactive substances are substances that affect a person's psyche and cause health and behavioural problems. Their use is particularly dangerous at a young age, as they can disrupt a young person's development and adversely affect their psychological, social and physical well-being (Youth and Psychoactive Substances, 2022). The use of psychoactive substances leads to psychological and physical dependence, and the tendency to become intoxicated often starts in adolescence. As children spend most of their time at school at this age, the challenge for educators is to recognise and appropriately manage the risks associated with psychoactive substance use (Psychoactive substances and school: guidelines for prevention and intervention, 2023).

It is important to note that the use of psychoactive substances at a young age is not only a problem in our country. According to Moor, Winter, Rathmann, Ravens-Sieberer & Richter (2020), it is particularly problematic when the tendency is very early or too intense. According to the researchers, it often leads to violence and other unwanted behaviours and addictive diseases, and increases the risk of suicide, suggesting that psychoactive substance use is a major risk factor for morbidity and premature mortality around the world (Moor, Winter & others, 2020).

One of the main causes of health disorders and deaths in Europe's young people is the use of drugs. According to Norkienė, Jurgaitienė and Lazarevičiūtė (2018), this disease has no territorial, national, regional boundaries, and it does not depend on the person's age, gender, education level, or social status. Studies have shown that adolescents who try drugs have already been involved in the use of other psychoactive substances. Their path to drug use starts with the first cigarette smoked and the first taste of alcohol (Psychoactive Substance Use Prevention Programme for Parents of Pupils: methodological guidelines for managers of care institutions, schools, teachers, professionals, 2018).

In order to reduce the increased use of psychoactive substances by young people in our society, it is necessary to consistently develop children's resilience to this negative social phenomenon from a very early age. Motivating young people to stop using psychoactive substances before addiction develops is essential. One of the tools to help young people aged 14-21 who are experimenting with or irregularly using alcohol and/or drugs is the Early Intervention Programme. According to a study carried out in Lithuania in 2021, 75-76% of participants were positively affected by this programme (Report on the implementation of the Early Intervention Programme 2021, 2021). The task of educators is to find and record the first cases of adolescent psychoactive substance use. Unfortunately, in our country, according to Norkienė, Jurgaitienė and Lazarevičiūtė (2018), "there is a missing link" for early identification of users of psychoactive substances, especially drugs, and for providing them with timely help. More frequent and in-depth sociological research and opinion polls are likely to help address this problem.

Hypothesis - Psychoactive substances start to be used in adolescence and are easily accessible to students.

The aim of the study was to investigate the prevalence of psychoactive substance use among pupils of general education schools in Panevėžys.

Objectives:

1. To determine the age of the students who are using and the psychoactive substances they are using.
2. Identify the places where pupils get intoxicated and the availability of psychoactive substances.

RESEARCH METHODS AND ORGANISATION

The research method is a questionnaire survey (quantitative research method). The main research instrument is a questionnaire developed by the authors. The questionnaire was designed in such a way that the questions would be equally clear to both 12 and 18-year-olds. The questionnaire consists of closed or semi-closed questions (the answer 'other' is offered, with the possibility of expressing an opinion or providing a clarification), and most of the questions are alternative.

Participants in the study. The participants of the study were students of general education schools of Panevėžys city, grades 5, 7, 9 and 11. The sample was drawn by cluster sampling, the sampling unit (cluster) was the classroom. The aim was to ensure that the sample was representative of students in educational institutions in terms of gender, age and place of residence. The representative sample was based on the number of pupils enrolled in grades 5, 7, 9 and 11 in the city's general education schools. The Paniotto formula was used to calculate the sample: $n = 1 / (\Delta^2 + 1/N)$, where n is the sample size; Δ is the margin of error; N is the size of the general population. The total number of pupils in the general population is 3600. In order to be representative and reliable with a margin of error of 5%, the survey was planned to interview 348 pupils ($n = 1 / (0.0025 + 1/3600)$). Given the relevance of the topic of the survey, there was strong support from school leaders and 1041 pupils completed the questionnaires. 1030 questionnaires were found to be duly completed. The sample size in this case was 1030, thus reducing the margin of error to 2.63% ($n = 1 / (0.00069 + 1/3600)$).

Research ethics. Letters inviting participants to take part in the study were sent to the heads of 16 general education schools in the city. Consents were obtained from all schools invited to participate in the study. The schools, in turn, took parental permission to interview their children.

In November 2023, the address to the online survey on www.manoapklausa.lt was forwarded to the general education schools in Panevėžys that agreed to participate in the study. The preamble of the questionnaire states the purpose of the survey and emphasises that only the researchers will see the answers. In order to ensure full anonymity and confidentiality of the participants, the questionnaire did not ask them to indicate their school and the data is not comparable in any respect.

The survey data was analysed using descriptive statistics, calculating the arithmetic mean and percentage of respondents' opinions. The study allows for a margin of error of no more than 5% for statistical decisions. The data is illustrated by tables and graphs and presented in absolute numbers and percentages. Respondents' verbal comments in response to 'other' or open-ended questions shall be quoted in the text, grouped together and presented in tables. It is important to note that in the analysis, respondents' answers are quoted verbatim, in the form in which they were given in the questionnaire, i.e. neither grammatical nor punctuation errors have been corrected in order to preserve the authenticity of the students' speech.

RESULTS OF THE STUDY

The study involved 1041 students from 16 general education schools in Panevėžys: 6 gymnasiums and 10 pro-gymnasiums. The gender distribution of respondents was as follows: 56% of women, 43% of men, 1% did not specify their gender. 11 questionnaires submitted on www.manoapklausa.lt were rejected as incorrect or incomplete, so the data from 1030 questionnaires ($n = 1030$) was analysed further.

The aim was to have similar proportions of the sample in grades 5, 7, 9 and 11, as the total number of pupils in the city's public schools in all these grades is fairly evenly distributed. An examination of the distribution of respondents by grade reveals that one third of the respondents were students in grade 9, while the number of older students (grades 9 and 11) who participated is 55%. This distribution of respondents by grade can be justified by the fact that the issue is more relevant to students in the gymnasium (grades 9 and 11) (Figure 1).

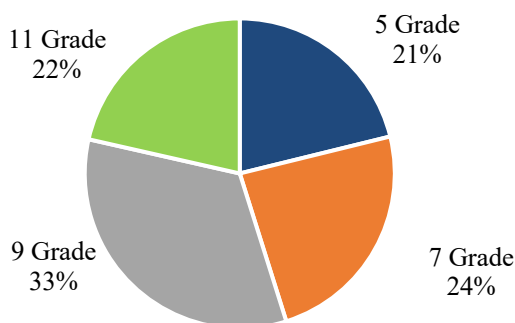


Figure 1. **Distribution of respondents by grades**

The use of psychoactive substances in Europe now covers a wider range of substances than before. Psychoactive substances are those whose biological structure or action is altered by use and absorption. In adolescence,

particular attention should be paid to those psychoactive substances that alter the functioning of the central nervous system and affect an adolescent's feelings, perception, thinking, behaviour (European Prevention Curriculum, 2019).

Participants were given a list of psychoactive substances and asked to indicate which ones they were aware of and whether they were aware of their harms. It showed that almost all students (95%) were aware of cigarettes, including e-cigarettes (91%), and weak and strong alcoholic beverages (86%-89%), but that one in ten had not heard of the harm caused by weak alcoholic beverages. The lowest proportion of students (40%) were aware of psychotropic substances such as impregnated leaflets, stamps, gum, etc., while 48% had heard of inhalants (glue, acetone, etc.). Just over half of the adolescents surveyed (55%) are familiar with chewing tobacco or snuff, while 57% are familiar with non-medically prescribed sedatives. Meanwhile, drugs are familiar to the majority of students (75%), although 15% said they had not heard of their harms.

More than half of the respondents answered positively to the question of whether there are students in the school who intoxicate themselves by smoking, vaping, using alcohol or drugs, while a third denied it, a few said they didn't know, and a small number of respondents chose the answer "other" in order to record their comments (Figure 2).

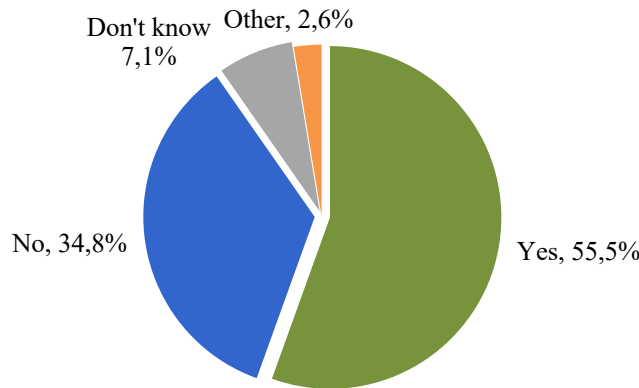


Figure 2. Respondents' answers whether there are students who are intoxicating themselves

Although the comments of the respondents who chose the answer "other" can be relatively divided into 3 groups, the majority of the respondents agree by mentioning the specific names of the students and the teachers in general: (Yes they are vaping a lot; Teachers; Yeah, I know who; Yeah, there are definitely but he's not from our grade; From 8c; <...> in the boys' toilets at the long break; name given).

Therefore, it can be said that the use of psychoactive substances does occur in schools, and more than half of the students are aware of it, and can even point to specific individuals, including, unfortunately, teachers. This negative example does not really contribute to the prevention of psychoactive substances in schools because, as we know, education can only have an impact when students see a teacher as a role model.

Respondents were asked to identify places where they knew students were intoxicating, given the known prevalence of psychoactive substance use. In this case, the questionnaire allowed for multiple choice answers. The most frequent use of psychoactive substances by students was found to be near the school, on the street, at school, at friends' houses or at home (Figure 3).

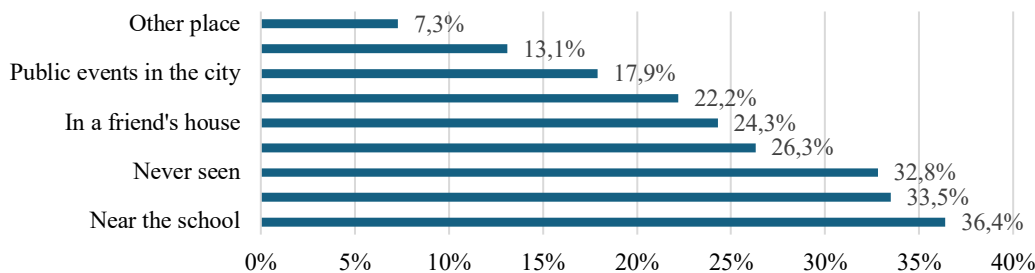


Figure 3. Places where intoxication is most common

Respondents who chose "Other places" only confirmed that the most frequent places where they get intoxicated are at school, and named specific places: toilets, the school basement, cloakrooms, behind the gym, in the corridors during lessons, in the back of the classrooms. It seems that school managers and professionals should pay more attention to the places named by students.

When asked whether they themselves had received offers to try psychoactive substances such as tobacco products, alcohol, drugs, sedatives, etc., a significant proportion of students (42%) found that such offers were not new, although more than half answered in the negative. In addition, psychoactive substances were found to be offered to students in the street, at a party with friends, near school, at school, at a public event in the city. Other places identified

by students were: in the street, at friends' houses, in the park, at school (classroom, club, toilet), on playgrounds and basketball courts, in the garage, in the car, in Freedom Square, on a trip, in another city, in a hotel (Figure 4).

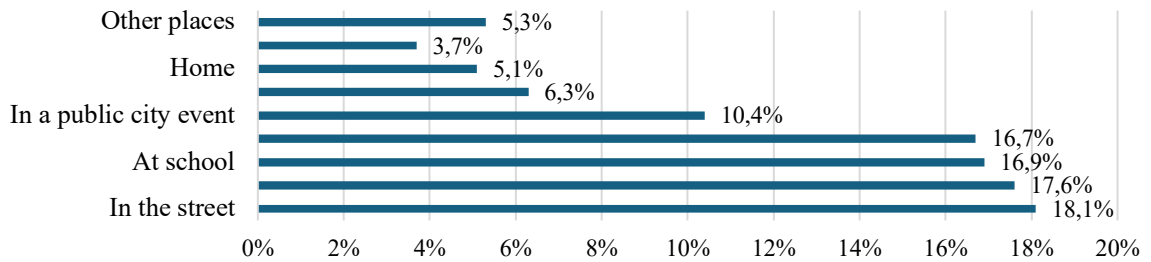


Figure 4. Places where students are offered to get intoxicated (n=923)

A higher proportion of participants (37.3%) would tell their parents if they received such an offer, but almost a third (30.8%) are likely to keep quiet about the offer to intoxicate themselves, and one in seven (14.4%) do not know who to reach out to. Among school staff, students trust their class teacher the most (5.8%).

In the next section of the survey, students were presented with a table listing various psychoactive substances and asked to indicate which ones they had tried. The results showed that light alcoholic beverages (such as beer, cider, alcoholic cocktails, etc.) were the most popular, with over 40% of respondents having tried them. One-third of the students reported trying e-cigarettes filled with nicotine liquid capsules. Additionally, 23.3% of participants admitted to using strong alcoholic beverages (such as vodka, brandy, whiskey, etc.), and 19.7% of teenagers had smoked cigarettes or tobacco. This was followed by heated tobacco devices, tried by 13% of respondents, and e-devices filled with cannabis products, tried by 10%.

The study revealed that a few students have experimented with various narcotic substances: 8.5% of respondents admitted to trying cannabinoid drugs (such as hashish, kif, and marijuana); 3% reported trying hallucinogenic drugs (like LSD, ecstasy, and hallucinogenic mushrooms); 2.5% had used stimulants; and 2.3% of teenagers acknowledged having tried cocaine and opioid drugs such as heroin, morphine, or dorsomorphin multiple times.

To refine the data collected, respondents were asked control questions: whether they had tried smoking or vaping, tasted alcoholic beverages, experimented with psychotropic substances (such as pills, inhalants, paper impregnated with psychoactive substances, etc.), or used narcotics. The summarized responses to all these questions are presented in a table. Participants who answered "yes" were asked to indicate the age at which they first tried these substances (illustrated in Figures 5, 6, 7, and 8).

The number of students who have experimented with psychoactive substances

Psychoactive substances / Respondents	Cigarettes	Alcoholic drinks	Psychoactive substances (such as pills, inhalants, and others)	Narcotics
Number	327	348	79	34
Percent	31,7%	33,8%	7,7%	3,3%

As seen in the table, nearly one-third of the surveyed students have tried smoking. The survey revealed that most initial smoking attempts occur between the ages of 12 and 14. However, 7.3% tried smoking as early as 9–10 years old, and about one in ten respondents said they couldn't remember when they first tried, which could also indicate an early experience (see Figure 5).

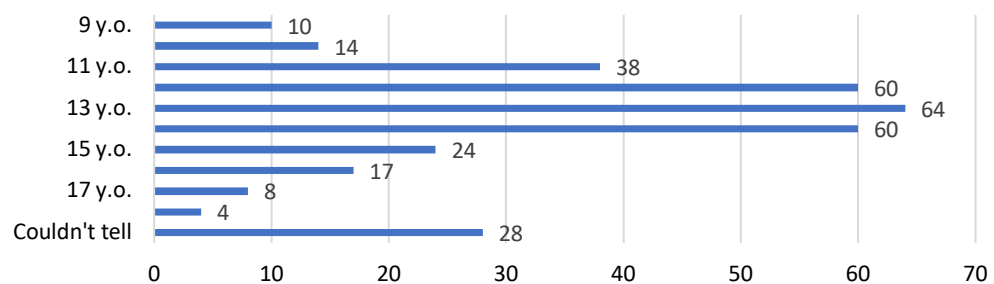


Figure 5. The age of respondents when they tried smoking for the first time (n =327)

When a similar question about alcoholic beverages was asked, it was found that 33.8% of respondents had tried them. However, in response to the earlier question about psychoactive substances, over 40% of respondents indicated they had tried light alcoholic drinks. This suggests that some students may not consider beer or cider to be alcoholic beverages. During adolescence—a period often referred to as a time of experimentation, experiences, and discoveries—

alcohol consumption sometimes becomes a common behaviour among young people (Šmigelskas, Lukoševičiūtė ir kt., 2019). According to survey data, the age at which teenagers first try alcohol ranges from 9 to 18 years, with the first attempts to consume alcohol most often occurring at the age of 14, as indicated by 17 percent of survey respondents. Approximately one in five students could not recall when they first tried it (see Figure 6).

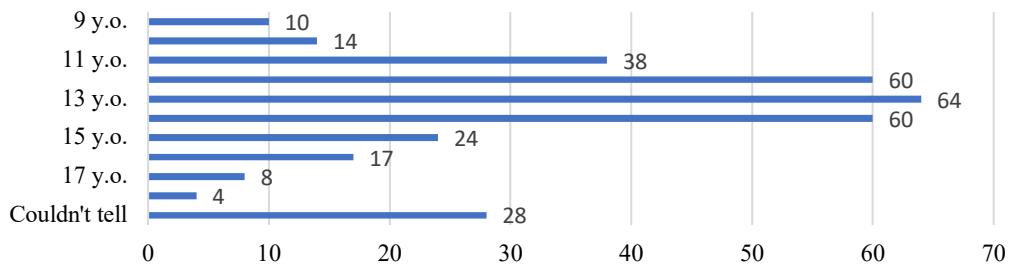


Figure 6. The age of respondents when they first tried alcohol (n = 348)

New and diverse types of psychotropic substances continue to emerge on the market today, including tablets, inhalants, and sheets impregnated with psychoactive substances. Teenagers inclined to experiment often struggle to resist the temptation to try something novel, unfamiliar, or prohibited. According to survey data, attempts with psychotropic substances are considerably less common compared to cigarettes and alcohol (7.7 percent of respondents reported having tried them) and tend to occur later, typically between the ages of 16 and 18, as indicated by more than half of the students who had experimented with these substances. Fourteen percent first tried these substances at the age of 14-15, and a third could not recall when they first did so (see Figure 7).

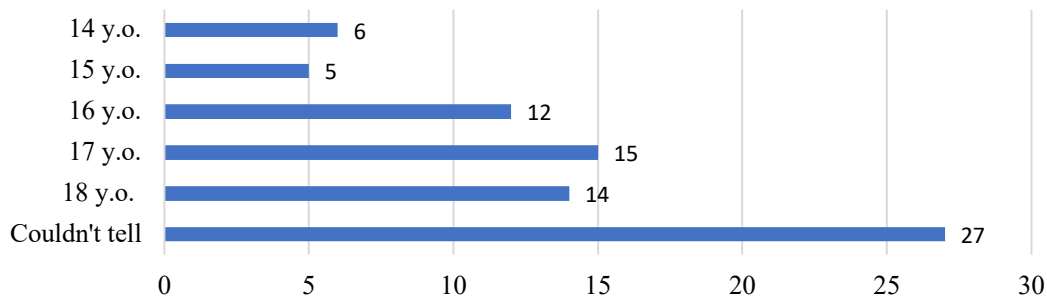


Figure 7. The age of respondents when they first experimented with psychotropic substances (n = 79)

A control question about drug use revealed an even lower number of respondents who admitted to having tried drugs, with only 3.3 percent of survey participants acknowledging this. It is likely that students do not consider smoking "weed" or marijuana as drug use. Most commonly, substances are used in groups as a way to show off to peers. The highest numbers of first-time users are recorded at ages 15, 16, and 18, with isolated cases starting at ages 12-13. One in five or six respondents who admitted to trying drugs said they could not remember their first experience (see Figure 8).

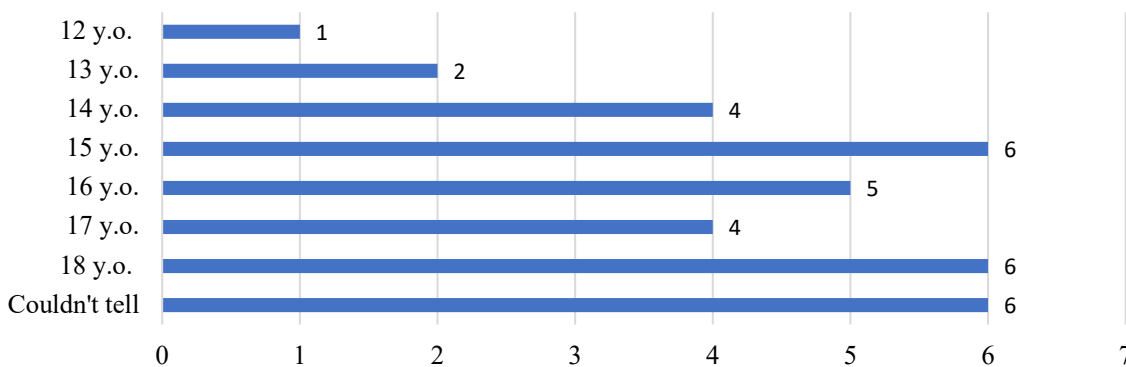


Figure 8. The age of respondents when they first experimented with drugs (n = 34)

In summary, the age of study participants who have tried psychoactive substances ranges from 9 to 18 years. Students tend to try tobacco products (cigarettes, electronic cigarettes, etc.) relatively early, with an average starting age of 13.0 years. Initial alcohol tasting occurs slightly later, with an average age of 13.7 years. The average age for those who have experimented with drugs is 15.3 years, while for psychotropic substances (such as pills, inhalants, etc.), it is 16.5 years. This suggests that first encounters and experimentation with psychoactive substances generally occur during adolescence. During this challenging period, teenagers seek their identity and place in society. Parents are no longer as close, and friends and the social environment become key influences in trying psychoactive substances.

To determine the frequency of psychoactive substance use, respondents were asked which substances they had used and how often in the past 30 days. According to the study, 15 percent of participating students reported smoking cigarettes (tobacco), with 4.1 percent having smoked once or twice. A similar proportion (3.9 percent) indicated smoking up to 10 times, while the remaining 7 percent smoked even more frequently. Vaping electronic cigarettes is more popular than smoking tobacco among students. Twenty-one percent of students reported owning and using vaping devices filled with liquids or capsules. Of these, 3.2 percent vaped between 3 and 10 times, 4 percent more than 10 times, 4.9 percent vaped daily, and 6.1 percent several times a day.

Light alcoholic beverages (beer, cider, alcoholic cocktails, etc.) are also popular among students. In the survey, 16.7 percent of participants admitted to using these drinks, with 10.1 percent stating that they had done so at least 1-2 times. Additionally, 9.8 percent of respondents admitted to drinking strong alcoholic beverages (vodka, whiskey, brandy, etc.) in the past 30 days; of these, nearly 2 percent drank strong alcohol between 3 and 10 times, and a similar proportion consumed it more than 10 times. There were no respondents who reported daily use of strong alcoholic beverages.

The situation is quite different when assessing the frequency of drug use: 32 students in the study (3.1 percent) reported using various types of drugs in the past 30 days. A concerning fact is that nearly 2 percent of respondents admitted to using drugs daily or multiple times per day, which constitutes intensive problematic use that leads to addiction. If these admissions are sincere, it can be assumed that this group of students is in a high-risk zone or is already addicted to intoxicating substances.

The least interest among students is shown in inhalants or combinations of several psychotropic substances, with about 2-2.5 percent of participants in the study admitting to using them. Additionally, 3.4 percent of survey participants reported having used non-prescribed sedatives or sleeping pills, and among them, some use them regularly. The reasons why some students have used non-prescribed medications can only be speculated – they may be experiencing stress, anxiety, or insomnia, or the drugs may be easily accessible at home, leading to the temptation to try them.

In summary, it can be stated that some participants in the study use various psychoactive substances. Students who smoke or misuse alcoholic beverages gradually shift from recreational use with friends to individual, situational use, and for one in ten students, the use of electronic cigarettes has already become problematic. A particularly concerning issue is drugs, as they significantly alter the user's thinking, sensations, and behaviour. Their impact on physical and mental health is difficult to predict, and after a few innocent attempts, drug use can lead to addiction. The worrying fact is that there are individual students already involved in intensive drug use.

After examining the frequency of psychoactive substance use among students, questions arise regarding where minors obtain these substances, in which places they are accessible to students, and what can be done to reduce their availability. Therefore, survey participants were asked where students can purchase psychoactive substances. Nearly one-fifth of the students in the study reported that they could buy cigarettes (tobacco), electronic cigarettes (liquids or capsules), as well as both weak and strong alcoholic beverages at stores, even though selling these products to minors is prohibited. Just over ten percent indicated that all types of cigarettes can be obtained on the street, in known "spots," or at school. The most common places for the distribution of drugs or combinations of several psychoactive substances are on the street and at "spots," and sometimes even within schools. The results suggest that distributors may gain access to school grounds and offer drugs to students. Another assumption is that students themselves may share psychoactive substances with peers in remote areas of the school, where they can use them without being caught (see Figures 3 and 4). Survey participants also reported that alcoholic beverages are available at youth gathering places, such as clubs, cafes, and public city events. According to the study, weak and strong alcoholic drinks, cigarettes (tobacco), and even non-prescribed psychoactive medications are easily accessible in students' homes.

CONCLUSIONS

It has been established that the main locations where students engage in substance use are near or within schools, on the streets, and in other public places such as bus stations, large shopping centres, parks, etc. In these places, as well as at friends' houses during parties, students are often offered the opportunity to try psychoactive substances. The research results revealed that teenagers have fairly broad access to psychoactive substances. They can purchase cigarettes (tobacco), electronic vaping devices (liquids or capsules), and both weak and strong alcoholic beverages at stores. Teenagers can also obtain all types of psychoactive substances on the street, at known "spots", near school grounds, and in youth gathering places. The primary location for drug acquisition is these "spots". Weak and strong alcoholic beverages, cigarettes, as well as non-prescribed sedative medications, are easily accessible to some students in their own homes.

The research results show that the issue of psychoactive substance use exists among 5th, 7th, 9th, and 11th grade students. Most respondents stated that they are aware of psychoactive substances and their harmful effects, and more than half of the participants reported that there are students in their school who engage in substance use. The age of students who have tried psychoactive substances ranges from 9 to 18 years, with the average age for first-time smokers being just 13 years old. Among students, weak alcoholic beverages, electronic cigarettes, and tobacco cigarettes are particularly popular. It is worth noting that some students have also experimented with hallucinogenic drugs, stimulants, cocaine, and opioid drugs. One in ten participants shows signs of intensive problematic use of electronic cigarettes. According to the survey data, there are individual students in schools who are involved in intensive drug use, leading to addiction.

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