

PREVENTION OF ALCOHOL AND DRUG CONSUMPTION IN ADOLESCENTS

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Abstract

The article is devoted to exploring: social features and gender characteristics of adolescents registered with a neurologist, their opinion about the detection methods; risk factors for alcohol and drug consumption. The study is based on a sociological survey of adolescents under 18, under the neurologist's supervision. Risk groups were identified, improvement recommendations about prevention and detection methods were given.

Key words: adolescence, alcohol, drug consumption.

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Introduction

The problem of drug and alcohol addiction in adolescence is common worldwide. The Republic of Belarus also faces this problem [1]. Nowadays, the amount of alcohol and drug consumption among adolescents has increased; the legal drinking age has become lower and drug consumption has reduced; the number of alcohol and drug consumption with harmful consequences among teens is increasing [2, 3]. There are many risk factors which push adolescents to start using alcohol or drugs [4]. The most significant are the social environment and educational level of the adolescent. Research done by Dr. Falk W. Lohoff's shows that as the level of education becomes higher, the risk of alcoholism becomes lower [5]. I. Hoh points out (2014) that: "a teenager with reduced intellectual development, once in an unfavourable social environment, or in an environment of drug-addicted adolescents, can succumb to the beliefs of his peers" [6].

The family is the basic level of the foundation of the social environment for a teenager. In cultures all over the world, including the traditional Belarusian culture, raising children according to gender stereotypes is typical. All stereotypes are based on a certain traditional prejudice of what characteristics are typical for a particular gender group. "Gender stereotypes are preconceived social and cultural patterns or ideas whereby women and men are assigned characteristics and roles determined and limited by their sex." [7]. It has been proven that girls "grow up" earlier than boys [9]. Traditionally, it was believed that men were more inclined to use alcohol at a harmful level, but 20 years

ago, the ratio of female alcoholism to male alcoholism was 1:12, ten years later it was 1: 7, and now it is approaching to 1: 4.

Proof. The existing methods of detection do not include all adolescents who are addicted or in the phase of becoming addicted. As S. Lebedev points out: "According to some authors, the real number of alcoholics among the population is about 5 times higher than the number of patients registered in drug treatment clinics" [7]. Discovering teens in need of special treatment provides them with the necessary treatment in the early stages of becoming addicted. This fact can reduce the possibility of addiction, shorten time of medical treatment and prevent severe long-term consequences of drug and alcohol addiction in the future.

Despite the commonality of the topic, the existing ways of alcohol and drugs consumption preventing among teens (such as – periodic visits to psychiatrist–neurologist [8]; an initial individual rehabilitation program [9]; special police department for children's visits and others) are not effective enough. More over, all these measures exclude a teenager's gender [8].

Aim of the research is to develop enhanced recommendations for the prevention of alcohol and drug addiction in adolescence under 18.

Furthermore, the aim is to identify the social features of adolescents registered with a neurologist; to establish risk factors for the primary use of alcohol and drugs; to analyse the opinion of adolescents about the detection methods effectiveness and their attitudes to various preventive measures taken by the government; as well as to describe gender

characteristics of adolescents in connection with the alcohol and drugs use.

Research material and methods of study

The study is based on a sociological survey. Participation in the survey was voluntary. Adolescents under 18, under the supervision of a psychiatrist–neurologist were interviewed. A poll was taken during a doctor’s visit in Grodno Regional Clinical Center ”Psychiatry–Necrology”, dispensary psycho–neurological department (for children).

The questions in the poll were created by the authors and included the following thematic parts. The social part includes gender, age, and some characteristics of the family (including families at risk); the part dedicated to behaviour includes reasons for drug and alcohol consumption, the attitude of the teenager’s family to drug and alcohol consumption, the perception associated with the use of alcohol or psychoactive substances; the third part includes teenagers’ opinions about the effectiveness of the prevention methods and the identifying addiction measures provided by the government, as well as the opinions of adolescents about the reasons for their registration with a neurologist. The poll was carried out from 01.03.2020 to 01.07.2020. The method was made up of continuous sampling. The sample includes 100 respondents. The method of systematization and generalization of the data was used. Statistica 10.0 and Microsoft Excel 13.0 programs were used for statistical data processing.

Results and discussion

The sample is represented by adolescents of both sexes: boys (74%) and girls (26%). For comparison the state’s sex ratio of adolescents is 1 to 1. So, there is an obvious gender imbalance, where boys prevail.

It should be noted that children and adolescents under the age of 18 can be under a neurologist’s medical supervision. The age of the interviewed adolescents under psychiatrist–neurologist’s supervision ranged from 12 to 17 years, $M_o = 16$ (42%). At the same time, the group of 12–13-year-olds was represented by only girls (every fourth teenage girl was registered). The average age ($M \pm m$, years) of the male respondents is higher: 16.15 ± 0.135 years, while the average age of the female respondents is 15.15 ± 0.093 ($t = 2$, $p = 0.05$).

Table 1: Distribution of respondents by age.

Age	All respondents, persons / %	Male, persons / %	Female, persons / %
12	4/4%	0/0%	4/15%
13	2/2%	0/0%	2/8%
14	3/3%	1/1%	2/8%
15	16/16%	10/14%	6/23%
16	42/42%	40/54%	2/8%
17	33/33%	23/31%	10/38%
Results	100/100%	74/100%	26/100%

While the nationwide data shows that ”the part of children with chronic diseases and morphological and functional abnormalities is 13.5%” [7], according to the adolescents’ self-esteem, boys have a higher percent of chronic somatic diseases: 12% of boys and 4% of girls answered that they have chronic diseases (table 2).

Table 2: Adolescents’ self-esteem of chronic diseases.

Answer	All respondents, persons / %	Male, persons / %	Female, persons / %
No	96/96%	71/88%	23/96%
Yes/ your answer	4/4%	3/12%	3/4%
Results	100/100%	74/100%	26/100%

This information shows us more about the objective adolescent health status, than about the boys’ low awareness of it. Due to the small size of the group of girls (less than 30 people), the data of statistical analysis cannot confirm the statistical significance of gender differences, at the same time, an larger amount of male respondents will obviously lead to confirmation of this trend.

The sample was represented by students: schoolchildren 44%, college students 54%, university students – 2%. Comparing the two sexes, we have found out that the girls number prevails among schoolchildren: 62% of girls and 38% of boys; among college students (59% and 3%) and universities (38% and 0%), boys predominate. ”Working” and ”not working nor studying” were not registered at all among the included in the research adolescents groups (table 3).

Table 3: Distribution of respondents by professional status and education.

Professional status and education	All respondents, persons / %	Male, persons / %	Female, persons / %
schoolchildren	44/44%	28/38%	16/62%
university students	2/2%	2/3%	0/0%
college students	54/54%	44/59%	10/38%
working	0/0%	0/0%	0/0%
not working nor studying	0/0%	0/0%	0/0%
Results	100/100%	74/100%	26/100%

The percentage of adolescents, who have only one parent, in the sample (22%) is higher than average in the Republic (4.2%) and does not depend on sex [4]. Approximately equal proportions of boys (22%) and girls (23%) are raised by only one parent. Registered boys are more often brought up in two-parent families: 75% of boys and 54% of girls. Girls are more often under the care of close relatives (15%) and social services (8%), while boys are brought up by their closest relatives (3%), and none are brought up by social services.

According to the test results, every 1 of 10 interviewed adolescent is in a group of social risk [10]. There are no obvious differences between families at social risk group and normal families depending on the sex of the adolescent. The percentage of boys whose families are at social risk group was 11%, and girls - 7%. The differences between male and

Table 4: Teenager’s family (who takes care of the interviewed respondents).

Who takes care of the interviewed respondents	All respondents, persons / %	Male, persons / %	Female, persons / %
two-parent family	44/44%	28/38%	16/62%
one parent	2/2%	2/3%	0/0%
close relatives	54/54%	44/59%	10/38%
social services	0/0%	0/0%	0/0%
Results	100/100%	74/100%	26/100%

female groups were not confirmed by statistics because of the small size of the tested group. However, this indicator is higher in the group of tested teenagers compared to the nationwide (4.2%) [4] in boys and girls.

Analysing the awareness of guardians about alcohol or drug consumption by adolescents before they have been registered with neurologist, we have found out that more often (in 84% of cases) guardians did not know about cases of the alcohol use by adolescents. The poll shows that 82% (66 people) of boys’ guardians did not know about the cases of alcohol or drug use before the adolescent was registered as addicted, 18% (8 people) of the guardians knew about the cases of consumption. Among girls, 88% (23 people) of guardians were not aware of the alcohol and drug consumption, 12% (3 people) were aware of this fact.

The age of teenagers’ first alcohol or drugs use varies from 12 to 17 years (Figure 1).

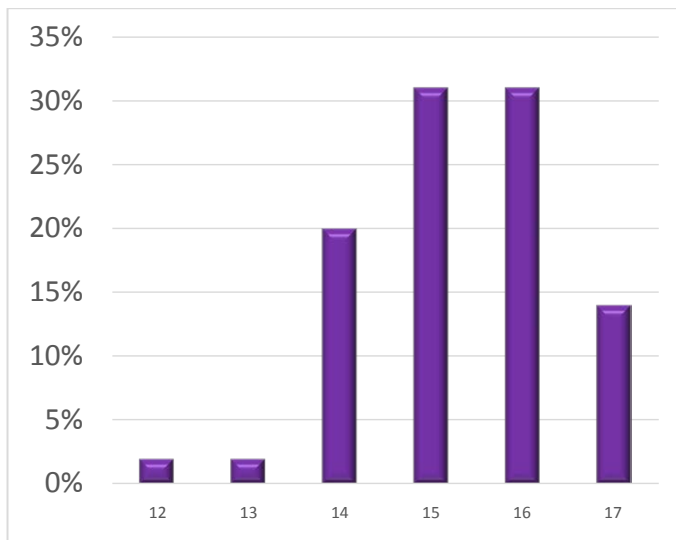


Fig. 1: The age of first alcohol or drugs use

However, 12 years was the age of the onset of alcohol or drugs use indicated only among girls: 2 girls (8%) of 26. The group of boys minimum age of first use is 13 years old: 2 boys (3%) of 74 (Table 5).

There were different reasons for first use of alcohol or drugs in the poll. According to boys’ and girls’ answers, the main reason for the first alcohol or drugs use is ”curiosity to try something new”: 45% of boys and 50% of girls. The

Table 5: Teenager’s distribution by age of first alcohol or drugs use depending on sex.

Age	All respondents, persons / %	Male, persons / %	Female, persons / %
12	2/2%	0/0%	2/8%
13	2/2%	2/3%	0/0%
14	20/20%	12/16%	8/31%
15	31/31%	29/39%	2/8%
16	31/31%	25/34%	6/22%
17	14/14%	6/8%	8/31%
Results	100/100%	74/100%	26/100%

second reason is ”under the influence of friends”: 43% of boys and 27% of girls. Among girls 12% single out ”difficult life situations (death of relatives, quarrels with family and loved ones, etc.)” as one of the most important reasons for the first alcohol or drugs use, and none of teenagers noted this reason in the group of boys. 7% of boys and 4% of girls have chosen the reason based on ”in connection with emotional distress”. ”Following the example of my family” was not chosen by either of the respondents of both sexes. ”Other reasons” were noted by 4 boys (5%) and 2 girls (7%).

One possible risk factor for the continuing use of alcohol or drugs after their first exposure can be expected by teenager sensations. However, of the adolescents registered with neurologists, 30% of boys and 38% of girls answered that they did not experience anything when using various substances. Mood improvement was chosen by 22% of boys and 7% of girls. The main sensation in the group of boys is relaxation: it was noted by 34% of boys, while in group of girls it was not significant in the structure of responses (23% of girls). In the group of girls, the main sensation experienced is anxiety: 32%, in boys, this answer is found in 14% of the respondents. Options ”hallucinations” and ”your option” were not selected at all (Table 6).

Table 6: Feelings of adolescents when using alcohol or drugs depending on sex.

Feelings of adolescents	All respondents, persons / %	Male, persons / %	Female, persons / %
mood improvement	18/18%	16/22%	2/7%
relaxation	32/32%	26/34%	6/23%
hallucinations	0/0%	0/0%	0/0%
anxiety	18/18%	10/14%	8/32%
experience nothing	32/32%	22/30%	10/38%
”your option”	0/0%	0/0%	0/0%
Results	100/100%	74/100%	26/100%

At the time of the poll, over the last month or more, 56% of the respondents did not drink alcohol, 42% of the respondents used alcohol or drugs once after registration with neurologist (Table 7).

The answer to the question ”What authorities have revealed the fact of alcohol or drugs intake” was ”the police” chosen by 72% boys. ”Educational establishment” or ”an employer or medical personnel” were chosen by 14% male respondents. Most of girls (86%) answered that the fact of their alcohol or drug consumption was revealed by

Table 7: Drinking alcohol in the thirty days preceding the poll, according to sex.

Frequency of alcohol and drugs use	All respondents, persons / %	Male, persons / %	Female, persons / %
did not consume alcohol or drugs	56/56%	40/54%	16/62%
1 time	42/42%	32/43%	10/38%
More than 1 time	2/2%	2/3%	0/0%
Results	100/100%	74/100%	26/100%

the police, the such variants as "educational institution" or "employer or medical personnel" were chosen by 7% female respondents. None of the respondents of either sex were registered after relatives request or self-request.

Regarding circumstances under which the fact of alcohol consumption was revealed, the variant "during police officers patrolling" was chosen by 70% of boys. The second most common answer is "during hospital examination" (22%). About 5% answered "at school or at work", 3% – "other". The option "when patrolling by police officers" is in the first place among girls (68%), "during examination in a hospital" is in the second (16%). Other reasons were mentioned by 16% of girls. For both boys and girls, among the options suggested by the respondents, answers "in a hostel" and "at home" are the most common (Table 8).

Table 8: Under which the fact of alcohol consumption was revealed.

Circumstances	All respondents, persons / %	Male, persons / %	Female, persons / %
during examination in a hospital	20/20%	16/22%	4/16%
during police officers patrolling	70/70%	52/70%	18/68%
at school or at work	4/4%	4/5%	0/0%
other	6/6%	2/3%	4/16%
Results	100/100%	74/100%	26/100%

According to the respondents' opinions, the most effective prevention measures in the third stage are visits to a neurologist (74%) and a psychologist or psychotherapist (12%), and the least common answers are the work of a special police officer for those underage (this option was chosen by only 4% of adolescents) and the organization of activities by the educational institution (4%). According to the girls' answers, the most effective preventive measures are visits to a neurologist (69% of girls) and a psychologist or psychotherapist (31%), and the least common response is also the work of a special police officer for those underage (0%). Male respondents choose visits to a neurologist (89%) as the most effective prevention method, but less often boys choose "visiting a psychologist or psychotherapist" and "individual work carried out by an educational institution" (8% each) (Table 9).

Among girls registered with a neurologist, according to the survey, a rehabilitation program is being carried out in 31% of female respondents. Among boys this criterion is higher (44%). Rehabilitation measures for prevention of alco-

Table 9: Effective prevention measures on adolescents' opinion.

Prevention measures	All respondents, persons / %	Male, persons / %	Female, persons / %
visit to a neurologist	84/73.6%	66/89%	18/69%
visit of a special police officer for underage	4/3.5%	4/5%	0/0%
visit to psychologist or psychotherapist	14/12.3%	6/8%	8/31%
individual work carried out by an educational institution	8/7%	6/8%	2/7%
obligatory attendance of circles and sections	4/3.5%	2/3%	2/7%

holism and drugs use are regulated by the state anti-alcohol policy in Belarus and are carried out for all adolescents who are under dispensary neurologist's supervision [8]. At the same time, such a small amount of adolescents with whom the rehabilitation program was carried out shows us the insufficiency of "doctor-patient" communication and the low level of adolescents' awareness and their personal involvement in rehabilitation programs.

I. Konorazov in his research states that: "The majority (more than 80%) of young people who have ever consumed alcohol have consumed alcohol during the last 12 months, it means that mostly alcohol consumption is not limited to its first drink, and continues in the future" [2]. In our study, only 44% of the respondents indicated that they used alcohol again. The differences between Konorazov's and our research can be explained by the fact that some of the adolescents in our poll were registered with a neurologist for a shorter time; moreover, there are no respondents over 18.

Also I. Konorazov points out: "Boys and girls drink alcohol equally" [2], but our study shows a clear predominance of boys (74%) among adolescents who are registered with a neurologist. This confirms the traditional opinion that men are more prone to drinking too much alcohol than women [5].

Our research shows that girls start to consume alcohol or drugs earlier than boys. This may be due to the fact that girls are more likely to mention the reason "difficult life situations", although the reasons that prompted adolescents to alcohol or drug consumption are mostly similar. The most widespread sensation from drinking alcohol for boys is relaxation, while for girls it is anxiety. In the I. Konorazov's study, it is indicated that stress and negative psychological status can become factors stimulating the use of alcohol or drug consumption. Among girls such conditions are more widespread than among boys.

According to the study of V. Muzhichenko, the age of first alcohol consumption in adolescents is 13.61 ± 0.19 years [1]. Our data shows that the average age of male respondents is 16.15 ± 0.135 years, female respondents is 15.15 ± 0.093 years. Adolescents in our study indicated the age of first alcohol or drug consumption is 2.54 years higher for boys, and 1.54 for girls in comparison with the data of V. Muzhichenko's study.

Daniel B. Rosoff in his study states: "Additional education reduced significantly the risk of alcohol dependence" [3]. The respondents with higher education in our study make up the smallest part (2%); college and school students is 98%.

Conclusion

It was revealed that the percentage of teenagers, including the sample and who are brought up by only one parent, was higher than nationwide. The percentage of children living in a registered with social services family is higher than elsewhere in the country, regardless of the sex of a teenager, based on the account of the psychiatrist. This fact does not depend on the gender of the adolescent registered with a neurologist.

At the same time, information about the teenagers' self-assessment of chronic diseases presence, revealed that girls are generally more aware of their health status than boys.

According to the male and female respondents, the police most often have revealed the facts of primary alcohol or drug consumption by minors. The percentage of girls identified by the police is higher than the percentage of boys. According to both boys and girls, patrolling is the most effective way to reveal alcohol or drug consumption. In general, the percentage of the other circumstances using alcohol and psychoactive substances in which adolescents of both genders were identified are almost identical and are not related to gender.

At the same time, it was found that among guardians raising boys, the proportion of people, who knew about the child's alcohol or psychoactive substances use and did not say anything about it, is higher than among guardians of girls. Although none of the guardians, both among boys and girls, have not consider it necessary to inform the need for drug treatment of their wards. Teenagers both sexes by themselves do not have the need of drug treatment.

The most popular prevention method for both boys and girls is visiting a neurologist. Visiting a psychologist and psychotherapist is much more often chosen by female respondents. The visit of the police inspector, as an effective method of prevention, was chosen only by boys. Other prevention methods are equally effective among male and female respondents.

The existing programs for the prevention of alcohol and drug consumption among adolescents can be supplemented with new algorithms that take into account gender differences in the reasons that push adolescents to the first use of alcohol or drugs. It is necessary to take into account the beginning of preventive work with girls from an earlier age (no later than 12 years), more actively carry out awareness-raising work with the guardians of boys, and also include girls who have undergone difficult life situations in

the risk group for alcoholism and psychoactive substances with stricter supervision.

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