

RESEARCH OF CONSUMPTION OF LOW-ALCOHOL BEVERAGES BY CHILDREN AND ADOLESCENTS IN UKRAINE

Lutsenko Alexander,

Candidate of Medical Sciences, Senior Researcher of the “Institute of Pediatrics, Obstetrics and Gynecology named after Academician O.M. Lukyanova National Academy of Medical Sciences of Ukraine”, Kyiv, Ukraine

Zinovieva Maryna,

Candidate of Biological Sciences, Senior Researcher SE “L.I. Medved’s Research Center of Preventive Toxicology, Food and Chemical Safety, Ministry of Health, Ukraine”, Kyiv, Ukraine

Kurdil Natalia,

Candidate of Medical Sciences, Deputy Director of the SE “L.I. Medved’s Research Center of Preventive Toxicology, Food and Chemical Safety, Ministry of Health, Ukraine”, Kyiv, Ukraine

Sheiman Boris,

Doctor of Medical Sciences, Leading Researcher of the SE “L.I. Medved’s Research Center of Preventive Toxicology, Food and Chemical Safety, Ministry of Health, Ukraine”, Kyiv, Ukraine

Safir Tatiana,

Master's degree in psychology, PJSC University "Interregional Academy of Personnel Management", Educational and Scientific Institute of International Relations and Social Sciences, Kyiv, Ukraine

Introduction. Since the early 1990s, the problem of alcohol consumption (hereinafter - AC) among adolescents and young people has become relevant, which was confirmed by the results of studies conducted by WHO in different countries (in a cohort aged 15 and older) and data obtained during the ESPAD project "European School Survey Projection Alcohol and Other Drugs" [1-3].

For many years, the ESPAD program has been researching low-alcohol beverages, or “alcopops”, whose consumption is progressively increasing among young students.

Aim. To study the age and gender characteristics of adolescents' consumption of low-alcohol beverages, identify health risks associated with LAB and identify ways to minimize their negative impact on the health of particularly vulnerable groups.

Materials and methods. The data of the WHO and the ESPAD project, separate national researches on alcohol use by teenagers were studied; the results of the long-term epidemiological study "Family and Children of Ukraine" were analysed, which is a part of the WHO long-term European long-term study program on parenting and

childhood "ELSPAC" (European Longitudinal Study of Parenthood and Childhood). The data of the questionnaire were analyzed: 1075 "Questionnaires of the mother of a teenager aged 15-18"; 989 "Questionnaire for a teenager aged 15-18" (the sample consisted of 499 boys and 490 girls). The study was carried out at the Institute of Pediatrics, Obstetrics and Gynecology named after Academician O.M. Lukyanova National Academy of Medical Sciences of Ukraine" in 2019-2020.

Sociological and statistical research methods were used (database formation - SPSS system; statistical processing - Microsoft Office 2003, 2010," IBM SPSS Statistica 20.0").

Results. The results of the survey show that among the surveyed adolescents, 67.4% (725) of people consumed alcohol at least once in their lives, and there were more girls (69.5% - 370 people) than boys (65.4% - 355 people). The youngest age when the LAB was first consumed among adolescent boys, is the age group of 9 years and younger (Fig. 1).

The first consumption of beer and LAB among adolescent boys took place mainly at the age of 14-15 years: at the age of 14, 19.0% of boys consumed beer for the first time, alcoholic cocktail - 9.4%; at the age of 15, beer was consumed for the first time in 16.0%, alcoholic cocktail - 8.8%. Among adolescent girls, beer and LAB were consumed for the first time, mostly at the age of 14-15, but girls were given priority to LAB, but not beer (Fig. 2).

Thus, at the age of 14, 14.5% of girls tried beer for the first time, 13.3% - alcoholic cocktail; at the age of 15, 16.9% tried beer for the first time, 16.9% - alcoholic cocktail (Fig. 2).

Thus, the respondents most often tasted beer for the first time at the age of 14-15: at the age of 14 - 19.0% (103) boys and 14.5% (77) girls; at the age of 15 - 16.0% (87) boys and 16.9% (90) girls.

Analysis of the age of adolescents when wine and strong AB were consumed for the first time showed that among adolescent boys consumption of wine and strong AB happened the age of 14-15 (14.5 - 15.3%, respectively); among girls it's also at the age of 14-15, however, the indicators in this age group for girls were significantly higher than for boys (16.4 - 22.4%), respectively (Fig. 2).

Thus, in the age groups from 9 to 14 years, beer and LAB are the most consumed beverages, and from the age of 15 adolescents begin to consume more and stronger alcoholic beverages.

MEDICAL SCIENCES

MODERN TRENDS OF SCIENTIFIC DEVELOPMENT

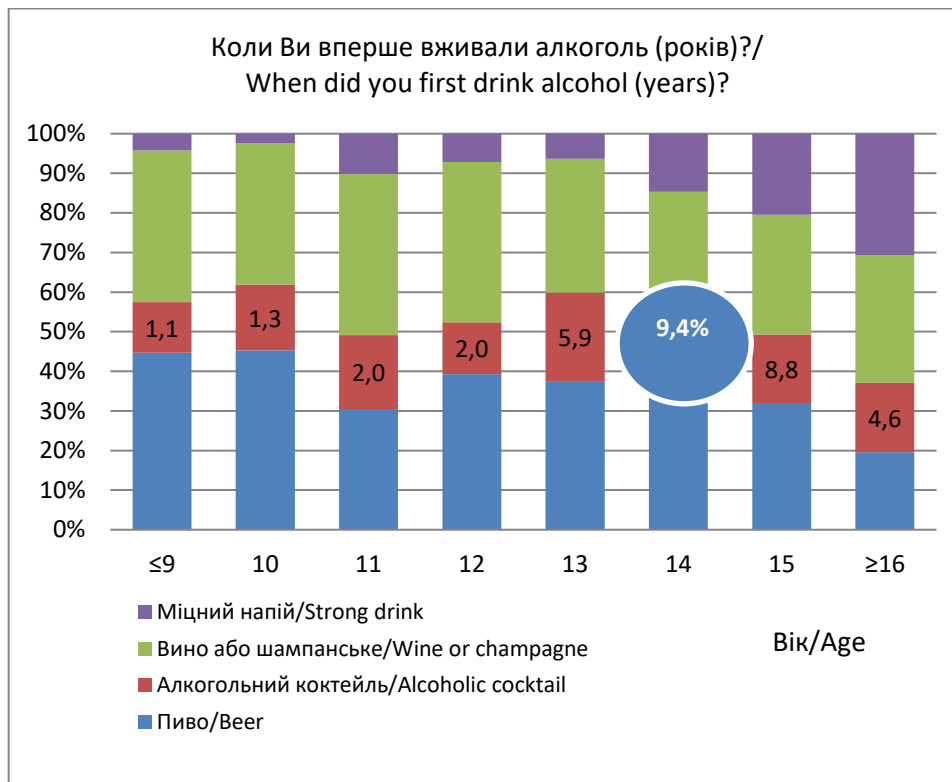


Fig. 1. Distribution of adolescent boys by age (%) in which alcohol consumption first occurred (data from the Family and Children of Ukraine study, N = 499).

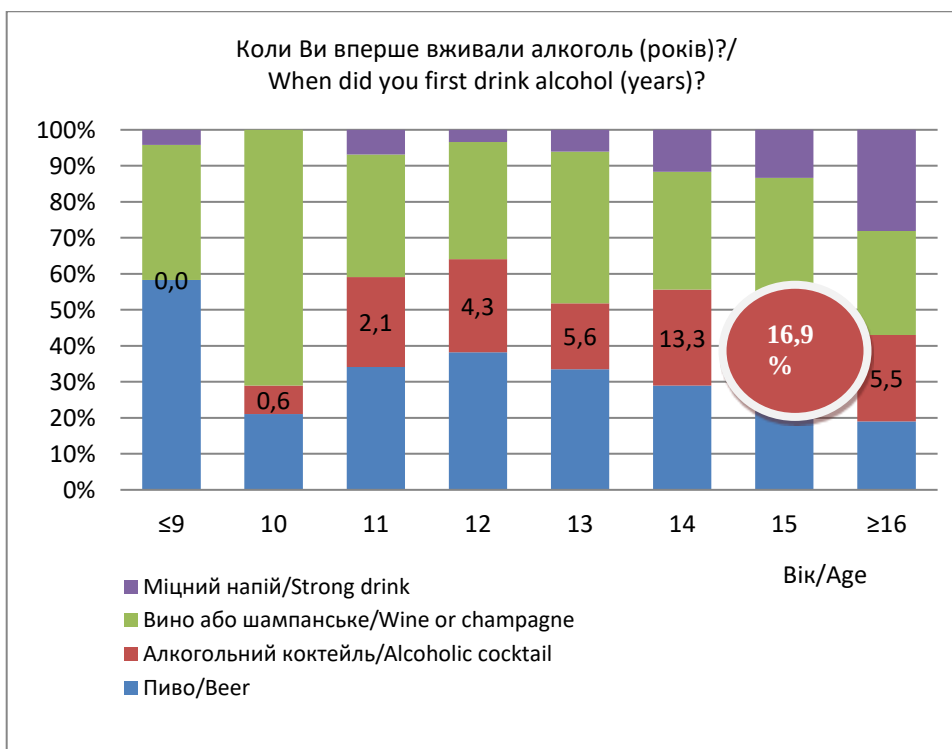


Fig. 2. Distribution of adolescent girls by age (%) in which alcohol consumption first occurred (data from the Family and Children of Ukraine study, N = 490).

The assessment of the biomedical risks associated with the use of LABs is based on the assessment of the toxic effects of ethyl alcohol.

The health risks from the consumption of LAB are due to the action of ethyl alcohol, which combines the properties of a chemical and a food product:

- LAB is a multicomponent mixture of substances that increases the risk of increasing their toxic effects on human health;
- LABs are used in effective doses (cause intoxication);
- due to the attractive taste, consumers often experience alcohol poisoning due to the consumption of large amounts of LAB;
- intake of LAB significantly depends on the nature of nutrition (consumption has pronounced individual characteristics in terms of dose and regimen);
- the metabolism of LAB (as a multicomponent substance) is special, and metabolic changes of homeostasis under their influence are complex and difficult to trace;
- LAB is characterized by a high degree of dose-effect dependence.

The problem of alcohol consumption is especially acute among young people and adolescents. Studies show that the development of alcohol dependence is largely determined by the age at which alcohol consumption begins. Thus, alcohol consumption under the age of 15 leads to the development of addiction in almost 40% of cases, and with increasing age to 21, this figure decreases by 4 times. It is the impacts on the psycho-emotional state and low risk perception that make LAB popular in emotionally vulnerable age groups.

Important medical and biological consequences of LAB consumption in adolescence are:

- 1) faster addiction to alcohol due to physiological and anatomical immaturity of the body in adolescence, a stable craving for alcohol is formed eight times faster than in adults leading to severe behavioral disorders; indicator of one of the initial stages of alcoholism, hangover syndrome, is formed in adolescents after 1-3 years of regular drinking;
- 2) malignant course of alcoholic disease due to the destructive effects of alcohol on the yet not fully developed body;
- 3) consumption of large doses of alcohol by adolescents as a reaction of the opposition (violation of the ban for this age group), emancipation, self-affirmation;
- 4) the rapid development of binge drinking with regular consumption of alcoholic beverages in quantities that lead to severe intoxication, which gives adolescents a sense of confidence.

According to national research conducted over the past 10 years, it was found that the volume of LAB consumption by adolescents ranges from one bottle (0.5 liters) purchased for themselves, to 7-8 cans (0.33 liters each) when consumed in a company that is from 25 g to 160 g of ethyl alcohol, which is approximately 10-60 times higher than the allowable daily dose set for humans. Also, studies show that 2/3 of adolescents in Ukraine drink LAB, which indicates the low effectiveness of the established measures of prohibitive nature and socially malignant effectiveness of pricing and marketing policies of producers [4-6].

Conclusions. Alcohol consumption among children and adolescents in Ukraine remains a social problem. Ways to improve the situation can be a systematic promotion

of sobriety among young people, as well as marketing tools focused on the consumption of soft drinks.

Key words: low alcohol drinks, adolescents, food safety.

References:

1. WHO. Global Status Report on Alcohol and Health 2018. Geneva: Switzerland World Health Organization; 2018. URL: <https://www.who.int/publications/i/item/9789241565639>.
2. WHO. Health evidence network synthesis report 68. What is the current alcohol labeling practice in the WHO European Region and what are barriers and facilitators to the development and implementation of alcohol labeling policy? World Health Organization; 2020. URL: <https://apps.who.int/iris/handle/10665/332129>.
3. ESPAD. Report 2019. Results from the European School Survey Project on Alcohol and Other Drugs. Electronic source. URL: https://www.emcdda.europa.eu/system/files/publications/13398/2020.3878_EN_04.pdf.
4. Smoking, alcohol and drug use among adolescents studying: prevalence and trends in Ukraine: according to the results of a study in 2019 in the international project "European survey of students on alcohol and other drugs - ESPAD" / O.M. Balakireva (supervising author), D.M. Pavlova, N-MK Nguyen, O.G. Levtsun, N.P. Pyvovarova, O.T. Sakovich; O.V. Flyarkovskaya. - Kyiv: Obnova Kompani LLC, 2019. - 214 p.
5. Chyshko K.O. State policy in the field of reducing the consumption of alcoholic beverages and their harmful effects on public health: problems of legal regulation and ways to solve them. Administrative law and process. 2/2020. Pp. 242 - 247. DOI: <https://doi.org/10.32849/2663-5313/2020.2.42>.
6. Balakireva O.M., Bondar T.V., Priymak Yu.Yu., Pavlova D.M., Vasilenko O.V., Sakovich O.T., Salnikov S.Z., Sidiyak S.V., Yudin Yu.B., Nakhabych N.S. Smoking, alcohol and drug use among adolescents studying: prevalence and trends in Ukraine: according to the results of a 2015 study within the international project "European survey of students on alcohol and other drug use - ESPAD". Kyiv: Foliant Printing Center, 2015. 200 p.