

An abstract painting of a face, focusing on a large, stylized eye. The eye has a blue iris and is framed by thick black lines. The surrounding areas are filled with vibrant, irregular shapes of yellow, green, red, and blue. The overall style is reminiscent of mid-20th-century abstract art.

UNDERAGE **DRINKING**

A REPORT ON DRINKING IN THE
SECOND DECADE OF LIFE IN
EUROPE AND NORTH AMERICA



Edited by Philippe De Witte
and Mack C. Mitchell Jr.



INTRODUCTION

The complexity and importance of underage drinking prompted ERAB and ABMRF to initiate a state of the art review. It explores the extent of underage drinking across Europe and North America, as well as our current understanding of factors that increase the risk of this behaviour and potentially effective evidence-based approaches to prevent underage drinking. Unfortunately, the problem is complex and a single solution or policy to prevent underage drinking does not exist. Nevertheless, a number of strategies are effective in some circumstances and warrant further study in different populations. Preventing risky drinking requires understanding of the important influence of family and peers. It is also important to recognize that some genetic traits like impulsivity, anxiety, sensation seeking and emotional dysregulation can also influence harmful drinking. These aspects (family and peers and genetic influence) are affected by cultural and environmental influences which, in turn, can influence each other.

The overall goal of this project was to develop a set of recommendations that could be used by public health departments and key stakeholders in the individual countries that make up Europe and the United States and Canada. It is clear that a single solution to this problem cannot be identified, given the different cultural backgrounds. In addition to providing a menu of effective strategies, recommendations on the best method for applying them in different cultural settings are included.

Complete e-book is available at
www.erab.org
and www.abmrf.org

AUTHORS AND EDITORS*

Franca Beccaria,
Mack C. Mitchell Jr. (Ed),
Sherry H. Stewart,
Philippe De Witte (Ed),
Reinout W. Wiers,
Helene R. White,
Antti Latvala,
Kim Fromme
and Patricia J. Conrod.



* From left to right in the photograph.

REPORT LAUNCH

The Report was launched on 27th November 2012 in the European Parliament in Brussels, Belgium. Dr Michael Hübel from the European Commission department for Health and Consumer Affairs joined several of the report authors to introduce the review findings and the report recommendations. The audience included Members of the European Parliament and other Commission departments.

KEY FINDINGS INCLUDED

UNDERAGE DRINKING IN EUROPE AND NORTH AMERICA

- Although rates of underage drinking have decreased in Europe recently and in the United States for more than a decade, underage drinking is still quite prevalent in Europe and North America. Prevalence rates are generally higher in Europe than in Canada and even more so than in the United States.
- Average rates for Europe mask large differences across individual countries in terms of frequency, quantity, and intoxication, with countries showing varied patterns of consumption.
- For the most part, the prevalence of drinking is relatively similar for adolescent boys and girls in both Europe and North America, even if significant differences still remain in many countries in the extent of frequent and heavy drinking.
- Patterns of drinking of youth across European countries are relatively consistent with the patterns of adult drinking within the same country, although for some countries they match better than for others.

RISK AND PROTECTIVE FACTORS FOR UNDERAGE DRINKING

- Risk and protective factors can be described at many different levels. It is important to distinguish risk and protective factors with respect to their causal status and with respect to their malleability.
- Peers and parents are important factors across cultures in influencing underage drinking and related problems, with many indirect pathways.
- Personality is an important risk-factor, with different facets of personality influencing risk for underage drinking and related problems in different ways.

- Alcohol-related cognitive processes are important predictors of alcohol use and problems, with some operating more on explicit reasoning processes (e.g., motives to drink) and others operating more automatically (e.g., attention captured by alcohol-related stimuli).
- Some risk factors (parenting, personality, cognitive processes) can be targeted in interventions.

PREVENTION OF ALCOHOL USE AND MISUSE IN YOUTH

- The goals of alcohol prevention programmes often vary according to cultural context. While most U.S.-based programmes have abstinence as their primary goal, most European programmes include reductions in alcohol use as a viable outcome.
- Delivering alcohol prevention in the school context captures a larger percentage of youth and yields the most consistent effects, relative to programme delivery within the community or family context. The most effective universal school-based programmes are comprehensive, concurrently addressing normative attitudes about drinking, and teaching generic and alcohol refusal skills.
- The most effective family-based programmes for preventing or reducing alcohol use in young people emphasise active parental involvement and work to develop parenting skills to enhance competence and self-regulation in children. Family-based programmes have small effects, but their effects are generally consistent and lasting.
- Selective interventions targeted towards at-risk groups (e.g., high personality risk for alcohol use disorders) have been shown to be effective in reducing alcohol use in young people. Such programmes can also delay drinking onset if introduced in early adolescence prior to the onset of alcohol use.
- Personalized feedback interventions are designed to correct misperceptions about drinking norms in college and high school students. Such programmes are indicated as a strategy for reducing drinking in those whom have already started drinking, especially those who drink more heavily.

RECOMMENDATIONS

The book attempts to draw recommendations based on evidence presented in Chapters 1 - 3 on *underage* drinking in European countries, the U.S., and Canada. As stated throughout the book, *underage* drinking means different things in different cultures so this review has focused on research covering the second decade of life, which includes mostly studies on adolescent drinking, especially middle and high school students, as well as some relevant studies on college student drinking. The literature review has led us to provide a number of recommendations aimed at: 1) delaying the age of onset of drinking and 2) preventing heavy episodic (i.e., binge) drinking (usually defined as 4 or more drinks per occasion for females and 5 or more for males) and intoxication among youthful drinkers. By achieving these goals, many of the short-term and long-term problems associated with drinking by youth will be reduced.

We would like to work towards a situation where all young people can have access to effective prevention programmes with good fidelity. Considering the harms associated with early onset use, all policies, whether they target demand for, or supply of alcohol to young people, should be aimed at delaying the onset of regular or heavy drinking. However, only evidence-based policies should be promoted and this report provides policy-makers with a review of the evidence-base for interventions aimed at reducing demand on the part of young people. A similar review of the interventions aimed at reducing supply/availability of alcohol to young people in Europe and North America should be made available to policy makers to further protect young people from alcohol-related harm.

The current prevalence and patterns of *underage* drinking are set out in Chapter 1. This chapter concludes that drinking is a normative behaviour among adolescents in both the European and North American contexts. Lifetime and annual prevalence rates are on average much higher in Europe than in the U.S. and Canada yet prevalence rates for drunkenness do not differ that greatly across the two continents. However, this conclusion masks some differences across individual countries in terms of frequency, quantity, and intoxication levels. Some countries, mostly in the north of Europe, and to some extent Canada, show a drinking culture with less frequent drinking but a tendency to drink to intoxication. In the south of Europe, the drinking culture is characterized by drinking more moderately and more frequently, while in the U.S. the drinking culture is generally moderate compared to most of the other countries examined in Chapter 1. However, the traditional classification of countries into “dry” and “wet” drinking cultures does not fit well for classifying the drinking of contemporary young people. This is due to many factors, one of them being the converging alcohol consumption levels in countries across Europe with per-capita consumption among the general population falling in southern and rising in northern Europe. Although, the most recent data show a decline in adolescent drinking in the U.S. and Europe (trend data are not available for Canada as a whole), the fact that last year 39% of European 15- or 16-year-olds consumed five or more drinks at least once in the last month and 15% of U.S. 10th graders consumed that amount in the last two weeks indicates that there is still a serious problem around *underage* drinking.

RECOMMENDATIONS FOR PREVENTION

Chapters 2 and 3 clearly indicate that there are some risk factors which cannot easily be modified, such as genetics (although the expression of genetic risk may be moderated) and socioeconomic status, which may be addressed by public policy or environmental interventions, such as efforts to reduce child poverty. Fortunately, there are also many other risk factors which do respond to effective interventions and which inform the recommendations made below. In addition, there are a variety of actions which can effectively reduce drinking in young people and prevent associated harms. The evidence base for all the recommendations set out below appears in the previous chapters. The recommendations are grouped by subject. It should be highlighted that we recommend that all interventions should adhere to evidence-based treatment protocols and be delivered by trained personnel. Furthermore, we note that there is a need for more research to evaluate evidence-based programmes, especially outside of the U.S. In addition, we need to determine whether those interventions which are effective in one country

are transferrable to another country and what types of changes need to be made to an intervention in order to make it culturally appropriate for delivery in another country. Finally, we recommend that all interventions should be implemented with careful evaluation of behavioural outcomes.

RECOMMENDATIONS REGARDING THE ROLE OF PARENTS AND FAMILIES

- Parents should provide effective parental monitoring, consistent rule setting, and clear communication about alcohol.
- Parents should consistently disapprove of binge/heavy drinking.
- In most instances, except perhaps family or religious gatherings, parents should avoid providing alcohol to adolescents.
- Parents should maintain an active involvement with the activities of their children, including helping direct their selection of a peer group.
- Parents should be encouraged to monitor their children's social media sites, especially for their alcohol content.
- Parents should avoid modelling heavy drinking or intoxication.
- In selecting alcohol prevention programmes, it should be kept in mind that parent-based programmes can be effective in preventing or reducing alcohol use in young people and that the most effective parent-based programmes emphasise active parental involvement as well as development of competence, self-regulation, and parenting skills.
- In selecting an alcohol prevention programme, family-based prevention programmes should be considered. Although their effects are small, their effects are generally consistent and persisting, and even small effects can be important from a public health perspective.
- In countries with more liberal alcohol policies and lower legal drinking ages, parental programmes should be combined with other evidence-based programmes.

RECOMMENDATIONS FOR SCHOOL PROGRAMMES

- Policy makers and service deliverers should attempt to deliver programmes that have been shown to be evidence-based within a cultural and social context that closely matches the context in which they wish to deliver that particular programme.
- Small modifications to programme delivery methods and content should always be tested, considering the potential for iatrogenic effects in alcohol prevention.
- It is best to deliver alcohol prevention in sequential and developmentally appropriate stages.
- Normative feedback, especially for high school students, should be provided in the context of a comprehensive approach to skill development.
- Universal interventions should not be exclusively delivered by police or other authority figures.
- Prevention programmes should use an interactive delivery style.
- Targeted school-based prevention programmes should be introduced in the early adolescent years, ideally before initial exposure to alcohol.
- Selective interventions should be targeted toward at-risk groups, particularly those with personality or behavioural traits that put them at-risk for alcohol use disorders and for whom targeted interventions have been shown to be effective. Other at-risk groups have been identified, but should only be targeted in prevention with programmes that have an evidence base for those particular populations.
- Strategies such as personalized feedback designed to correct misperceived norms for both high school and college students should not be used as a method to prevent onset of drinking and are indicated as a method to reduce drinking in those who have already begun to drink, particularly those who drink more heavily.
- Researchers and practitioners should consider adapting evidence-based programmes for use on the Internet, but more research is needed in both Europe and North America before this becomes standard practice (see research recommendations below).

- When disseminating an efficacious alcohol prevention programme, it is very important to attend to intervention fidelity including adequate training and supervision of those delivering the intervention.
- As it has been shown that school staff can be trained to effectively deliver evidence-based universal (e.g. Life Skills Training/ Unplugged) and selective (e.g. Personality-targeted) programmes, we recommend public investment in broader dissemination of training in these and other evidence-based practices .
- Greater investment in comparative effectiveness and cost effectiveness research will guide policy makers to develop effective strategies for broader dissemination of alcohol prevention.
- An international system for evaluating and disseminating evidence-based practices in alcohol prevention should be made available to the public and maintained by a research organisation that is neutral with respect to theoretical approaches to prevention, yet experienced with respect to reviewing and synthesizing the evidence base.

RECOMMENDATIONS REGARDING MULTI-COMPONENT PROGRAMMES

- When selecting an alcohol prevention programme, it should be kept in mind that multi-component interventions for alcohol misuse prevention in young people can be effective, although generally speaking, interventions with multiple components are no more effective than those with a single component.
- However, there is some limited evidence from one study that both parents and children should be targeted simultaneously in multi-component interventions in countries with more liberal alcohol policies and lower legal drinking ages.

RECOMMENDATIONS FOR FURTHER STUDY

The research reviewed in Chapters 1-3 identified several gaps in the literatures. Most importantly, there has been inadequate evaluation of interventions for youth to prevent alcohol onset and later heavy drinking and a paucity of cross-cultural studies comparing intervention approaches. Below we list some additional areas of research, which we think are critical for guiding future development of appropriate interventions and enactment of policies to deal with the problems related to youthful drinking.

EPIDEMIOLOGICAL RESEARCH

- Definitions and measurement of drinking patterns, including heavy episodic (binge) drinking, should be standardized across studies.
- Better assessment of the exact amounts consumed should be collected and details reported in national surveys.
- In addition to analysing drinking behaviours across all youth, some analyses should provide results for drinkers only, to shed more light on cross-cultural differences in drinking patterns.
- Data should be collected to better estimate blood alcohol concentration levels (i.e., information on duration of consumption, gender, and weight).
- More qualitative research is needed to understand youth's perceptions of and motivations for drunkenness and how these attitudes are culturally influenced.

RESEARCH ON RISK AND PROTECTIVE FACTORS

- Better controlled studies are needed for regional and cross-national comparisons to understand the influence of parental supervised alcohol use within the family setting on *underage* drinking in different cultural/drinking contexts.
- More quantitative and qualitative research is needed to compare risk and protective factors and their association with drinking outcomes across European and North American countries.
- More research utilizing “natural experiments” (e.g., adoption studies, twin studies, longitudinal studies of samples experiencing important secular changes) is needed to clarify the causal status of several risk factors.

- More research is needed on both implicit and explicit alcohol-related cognitions in adolescents to determine the causal status of these cognitive processes in youth.
- Controlled, experimental studies are needed within naturalistic settings, such as those relating exposure to alcohol-related content in films/movies with adolescent drinking.
- Research is needed on the effects of social media and, in particular, the practice of posting alcohol-related messages by *underage* people (on Facebook, Twitter, etc.).

INTERVENTION RESEARCH

- More research comparing peer-led versus professionally-led interventions is needed to clarify their relative effectiveness in different situations, and what factors might moderate their effectiveness.
- More research should evaluate the use of web-based adaptations of evidence-based programmes for adolescents and parents, with an emphasis on evaluating their behavioural outcomes.
- More research should evaluate web-based adaptations of evidence-based training programmes for teachers and providers.
- More research should evaluate the use of social media and other technologies to promote youth access to evidence-based interventions.
- Research is needed to evaluate the use of social media and the Internet to better disseminate knowledge and guidelines for evaluating the evidence in support of prevention programmes and policies.
- More research should systematically evaluate the cultural and policy-level contexts that may enhance or interfere with the impact of evidence-based programmes.
- More work is needed to further investigate the effectiveness of parent-based alcohol prevention programmes, especially in different cultures.
- Future work should examine cross-cultural similarities and differences in the efficacy of multi-component interventions involving both school- and family-based components in preventing or decreasing alcohol use in adolescents.
- There is a need for additional studies that attempt to enhance the efficacy of school-based programmes by including broader community components such as media, community services, and alcohol retailer involvement within a multi-component intervention.
- Research has demonstrated that both implicit and explicit alcohol-related cognitions are malleable in adults with promising outcomes, but hardly any research has been done in adolescents. More research is needed on this topic to develop new intervention strategies to moderate drinking in this age-group.
- More data are needed on the health-economics of alcohol prevention programmes with youth to help guide policy makers around improving young people's access to effective intervention programmes.

CONCLUSIONS

This report represents an attempt to provide information to researchers and policy makers from Europe and North America to help them address the issues related to *underage* drinking. We hope that a dialogue will begin and that we will move towards the development and implementation of efficacious programmes that can delay the onset of drinking among youth and reduce the extent of heavy and problematic drinking on both continents. More governmental funding of research and greater spending on evidence-based prevention programmes and comparative research evaluating programmes will help achieve these goals.

