

Treatment of alcohol dependence. Alcohol and the young: social point of view

Trattamento della dipendenza da alcol. Alcol e giovani: punto di vista sociale

GIOVANNI ALESSANDRINI*¹, ROSARIA CICCARELLI², GEMMA BATTAGLIESE²,
GIUSEPPE LOMBARDO², FRANCESCA DE ROSA², MARISA PATRIZIA MESSINA³, MARIO VITALI⁴,
FABIOLA PISCIOTTA², MIRIANA NANUT², MARIA LUISA ATTILIA², MAURO CECCANTI²;
INTERDISCIPLINARY STUDY GROUP CRARL, SITAC, SIPaD, SITD, SIPDip**

*E-mail: dottgio1979@libero.it

¹ASL Viterbo, General Medicine, Viterbo, Italy

²Centro Riferimento Alcolologico Regione Lazio (CRARL), Sapienza University of Rome, Italy

³Department of Gynecological and Obstetrics Sciences, Sapienza University of Rome, Italy

⁴ASUR Marche-AV4, Italy

SUMMARY. Adolescents are the most vulnerable group for alcohol-related diseases, as starting to drink at a young age is associated with an increased risk of alcohol dependence in adulthood. Young people tend to drink large amounts of alcohol to seek out strong emotions and for reaching fun at all costs through the psychotropic properties of alcohol. The behavioural motivations of this kind of drinking (*binge drinking*) depend on the lack of awareness of the harmful effects of alcohol, in the rite of social conviviality (a condition for which alcohol is attributed to the function of facilitating the aggregation among young people), in the absence of personal interests, lack of controls and family habits. Actions to be taken to limit or stop harmful alcohol consumption in young people should be based on interventions aimed at delaying the age of first contact with alcoholic beverages through the implementation of educational campaigns aimed at young people, their families and the whole society.

KEY WORDS: alcohol, young people, binge drinking, social aspects.

RIASSUNTO. Gli adolescenti rappresentano la fascia di età più vulnerabile ai danni causati dall'abuso di alcol, in quanto iniziare a bere in giovane età è associato a un aumento del rischio di dipendenza da alcolici in età adulta. I giovani tendono a bere grandi quantità di alcolici al fine di ricercare forti emozioni e nel tentativo di raggiungere il divertimento a ogni costo, tramite le proprietà psicotrope degli alcolici. Le cause che li inducono ad assumere questi comportamenti sono da ricercare nella non conoscenza degli effetti dannosi dell'alcol, nel rito di convivialità sociale (evenienza per la quale si attribuisce all'alcol la funzione di facilitatore dell'aggregazione tra giovani), nella mancanza di interessi personali, nella scarsità dei controlli e nelle abitudini familiari. Le azioni da intraprendere per limitare o arrestare il consumo nocivo di alcol nei giovani si devono basare su interventi finalizzati a ritardare l'età del primo contatto con le bevande alcoliche, mediante la realizzazione di campagne educazionali rivolte ai giovani stessi, ai loro familiari e alla società intera.

PAROLE CHIAVE: alcol, giovani, binge drinking, aspetti sociali.

INTRODUCTION

Alcohol abuse is a serious public health problem around the world. The ways in which alcohol is drunk vary considerably between nations and time periods. Chronic use and alcohol dependence cause serious health consequences¹⁻⁷. Most individuals experience alcohol for the first time in adolescence, when episodic intake and abuse are frequent⁸. In recent years, alcohol consumption is progressively increasing in young people quickly assuming the connotations of a trou-

bling phenomenon. Early alcohol intake (before 18 years of age) may be associated with an increased risk of alcohol-related problems in adulthood⁹. This risk behavior can lead overtime to the onset of organic¹⁰, psychic¹¹⁻¹³ and social problems¹⁰, as it interferes with normal cognitive, affective, physical, and emotional conditions of young people. Alcohol intake may be associated with other risk behaviors such as other drugs assumption, bullying, the occurrence of various types of accidents, and non-compliance with laws⁸. Drinking alcoholic beverages may also lead to the deterioration of

school abilities, work and relational performances, to the detriment of social relationship, violence and self-harming phenomena. Given the high risky status associated with alcohol abuse among young people, it is vital to raise awareness among young people, their families and the whole society about the harmful consequences associated with alcohol consumption.

SOCIAL AND CULTURAL ASPECTS

The analyses of the social and cultural context in which young people live are important for the comprehension of the role of alcohol in their everyday life. Traditionally, the following factors are recognized: nutrition, pharmacology, ritual and socializing¹⁴. The study of the type of recruitment and consumption of alcohol in the various populations allowed us to define its use and abuse within the various cultures^{15,16} as follows:

- *astonishing cultures*: the use of any alcoholic beverage is prohibited and the use of alcohol is a response to personal discomfort;
- *ambivalent cultures*: the thought of society is contradictory and induces alcohol for transgressing;
- *permissive cultures*: alcoholic beverages are allowed, but the attitude towards behavioral overflows is negative;
- *very permissive cultures*: attitudes towards moderate and excessive drinking are permissive.

Italy is a typical example of permissive culture in which the habit of drinking alcohol is part of the diet. In Italy, however, in recent years, a gradual change in cultural habits is in progress, ranging from a gradual reduction of wine assumption to the increase in the use of beer and spirits away from meals. There is also an increase in the number of young people who, inside groups, consume significant amounts of alcohol on an occasional basis, away from meals, only in order to reach acute intoxication and experience the psychotropic functions of alcohol. Indeed, a gradual transition from mediterranean drinking to nordic style drinking is detectable, where drinking is not integrated into eating habits but only sought for its poisoning and psychotropic functions. The new drinking culture is predominantly characterized not by the predominance of new alcohol models, but rather by the traditional italian approach to certain aspects of nordic drinking¹⁷, where adult men continue to prefer wine at meal-times, while young people prefer to drink beer and spirits outside meals, also in large quantities, for socializing reasons.

EPIDEMIOLOGY

At the present time, in Italy adolescents are witnessing a gradual increase in occasional consumption of alcoholic beverages also away from meals. It is estimated that in 2015, 64.5% of Italians aged 11 and over (about 35,064,000 of people) had at least one alcoholic drink, mainly men (77.9%) compared to women (52.0%), with an increase in alcohol consumption if compared to the previous years^{18,19}. Frequent alcohol abuse, based on the recommendation of the Italian

Minister of Health, is observable between people over 65 years old (36.2% men and 8.3% women), young people (18-24 years old – 22.8% men, 12.2% women) and adolescents (11-17 years old – 22.9% men, 17.9% women). It is estimated that between 2005 and 2014 there has been an increase in the number of occasional consumers (from 38.6% of 2005 to 41% in 2014) and those consuming alcohol away from meals (from 25.7% in 2005 to 26.9% in 2014)¹⁸. Drinking alcoholic beverages is more common between the ages of 18 and 24 in contexts related to entertainment and socialization¹⁹. Over the last few years, there has been a progressive reduction in those who drink only wine and beer and an increase in those who mainly drink spirits. An early 1994 research carried out by Centro Studi Alcolologia e Gastroenterologia del Policlinico Umberto I (now CRARL Lazio, Centro Alcolologico Regione Lazio) evidenced that the 86.0% of young people, between 13 and 19 years old consumed alcohol beverages away from meals. Interestingly, recently (2016) it is estimated that 38.1% of men and 16.5% of women over 11 years of age consumed alcohol away from meals^{18,19}. It is also estimated that in the age group 18 to 24, the percentage of men drinking reaches 50.1 and among women 37.4¹⁸. Age analysis shows that the population mostly at-risk for both sexes is between 16 and 17 years of age. This population accounts for about 700,000 minors, so they are not identified early and sensitized about the harmful consequences of alcohol intake.

FACTORS ASSOCIATED WITH ALCOHOL USE

Literature suggests that many factors are associated with the use of alcohol among adolescents and young adults. Among these factors the most important are the social ones. The low socio-economic condition is associated with the severity of the alcohol use disorder²⁰. Socio-economic conditions include the work of relatives²¹, father's work²², educational level²³, and the cultural environment in which adolescents live. Other important factors are parents use of alcohol, a history of parents' alcohol dependence, individual psychological characteristics^{8,24}, psychiatric^{11,18} illnesses and the recent birth of a child^{24,25}. Other factors include sexual activity²⁶, lack of social support, work status²⁷ and family situation²⁸. As for ethnicity and race, white teenagers have a high prevalence of alcohol use while black teenagers have significantly lower levels of alcohol consumption²⁹. Another factor that can affect the use of alcohol in adolescents is the gender³⁰. In a survey among the various subgroups of teenagers in the United States^{8,29}, males and females between 13 and 16 years of age had similar percentages of alcohol use. This is a worrying factor since the physiology of women, based on the indications of literature and World Health Organization, is more sensitive to alcohol damage compared to men. The international guide lines on alcohol drinking strongly recommend do not drink in young people under 18 years old, while daily alcohol consumption in an adult and good health woman should not be more than 1-2 alcoholic units (2-3 for an adult and good health man)⁸⁻¹⁰. The difference in alcohol related effects between men and women depends on the fact that women possess quite less efficient alcohol metabolic mechanisms. For these reasons women may become addicted to alcohol in a shorter time compared to men developing also quickly hepatic, cardiovascular and psychiatric alcohol re-

Treatment of alcohol dependence. Alcohol and the young: social point of view

lated diseases. Notably, alcohol use and abuse during development may cause important risk factors for a good health due to growth, nutrition and personality impairments¹⁴⁻¹⁷. Gender differences emerge after 17-18 years, with males showing a higher prevalence of alcohol use with dangerous drinking behavior (drinking during driving or driving after drinking)²². Another factor that influences the use of alcohol is the context in which it is consumed. Teenagers consume alcohol in many places, including their homes, friends' houses, bars, pubs, parks, beaches, school and work. The three main contexts are in the home of other persons, outdoors and in the car³¹. Drinking outdoors and drinking in the car are both significant predictors of the development of alcohol use disorder in adulthood³².

ALCOHOL AND YOUNG PEOPLE

Adolescents are the most vulnerable age group for alcohol-related diseases³², as starting to drink at a young age (14 years ago) may be associated with an increased risk of alcohol and drug addiction³³, with episodes of acute alcohol intoxication, with episodes of acute alcoholic hepatitis, with injuries to the neighbor and with road accidents³⁴. The World Health Organization shows that alcohol abuse determines 3.3 millions of deaths every years all over the world, namely the 5.9% of all deaths. About the 25% of deaths in young people (20-39 years old) are attributable to alcohol. Furthermore, the 5.1% of the total human diseases and accidents are attributable to alcohol measured as DALYs (Disability-Adjusted Life Years), a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death³⁵.

In Italy, the first cause of death among young people is related to road accidents caused by drunk drivers. Alcohol dangerously affects the risk perception and undermines the individual's ability to react to visual and sound stimuli. Up to 21 years the body has not completed the development and is unable to totally metabolize alcohol. Therefore any amount of alcohol taken by young people exposes them to higher risks than adults. Adolescents tend to drink large amounts of alcohol in a short time, more on Saturday in people groups, at parties, at nightclubs and pubs, in order to seek strong emotions, to socialize with the other sex and trying to get fun at all costs. The causes that induce young people to take these behaviors are many as the lack of knowledge of the harmful effects of alcohol, in the rite of social conviviality (an event that if you do not take alcohol you can't have a social life, thus ruling alcohol as facilitator of dialogues and social aggregation), in the lack of personal interests, in the lack of controls and in non-compliance with laws. In a recent study³⁶ carried out on 1928 university students it has been shown that the reasons of alcohol drinking are:

- *enhancement* (internal positive reinforcements): alcohol drinking for searching strong emotions, to facilitate the pleasure and to reach aims;
- *coping* (internal negative reinforcements): alcohol drinking to manage own emotions and personal mood;
- *social* (external positive reinforcements): alcohol drinking to feel strong peer membership and to have fun with other people.

University students consuming low amounts of alcohol drink for Conformity (external negative reinforcements) to avoid peer exclusion and for conforming to the habit of other people.

THE BINGE DRINKING

The binge drinking is a mode of consumption of alcoholic beverages characteristic of young people who developed some years ago in northern Europe but also present in our society. This term identifies an excessive and episodic consumption of alcoholic beverages of any kind, concentrated in a narrow arc of time and generally outside meals. This kind of behavior can be defined as a consumption of five or more alcoholic units, regardless of sex, in a single occasion¹⁸. Binge drinking is associated with considerable health expenditure and with important social consequences. Alcohol consumption away from meals is mainly common between the ages of 18 and 24 in occasions and contexts related to socialization and entertainment within groups of persons²⁶. In Italy, it is estimated that in 2016 about 11.2% of men and 3.7% of women over the age of 11 have practiced the binge drinking at least once^{18,19}. The percentages of those who adopt this behavior progressively increase in the second decade of life and reach the maximum in the age group comprised between 18 and 24, where males account for 21.8% and females by 11.7%^{18,19}. The number of males is statistically superior to females in each age group⁸. Socio-economic, demographic and individual factors seem to have a negative effect on binge drinking⁸. This phenomenon is often associated with the use of substances and a family history of alcohol dependence⁸. Peer pressure is one of the strongest factors driving young people to drink and seems to be more important than parental influences^{8,33}. Binge drinking also varies according to individual cultures, where northern and central Europe are characterized by a greater number of episodes than southern Europe⁸. From this data it can be hypothesized that binge drinking is assuming the characteristics of a dramatic phenomenon both for the health of individuals and for the well-being of the whole society.

ACTIONS TO TAKE AGAINST ALCOHOL ABUSE IN YOUNG PEOPLE

The European Charter on Alcohol³⁷, adopted by the EU Member States in 1995, sets out the guide lines and strategies to take for promoting health and well-being of all citizens. In particular, it supports the protection of young people from drinking pressures and for limiting the damage induced directly or indirectly by the consumption of alcohol.

This document is based on some principles, among which we recall³⁵:

- all children and young people have the right to a family, social and professional life sheltering themselves from accidents, acts of violence and other harmful consequences arising from alcohol consumption;
- everyone has the right to receive information and education, from the earliest childhood, on the effects that alcoholic beverages have on health, the family, and society;

Alessandrini G et al.

- all children and adolescents have the right to grow in an environment protected by the adverse effects that may result from alcohol consumption and advertising on alcoholic beverages.

To fulfill these principles, it is necessary³⁵:

- to protect young people from related alcohol-related harm by carrying out interventions aimed at delaying the age of the first contact with alcoholic beverages, in order to reduce the level of juvenile consumption and risk behaviors such as binge drinking;
- to carry out educational campaigns aimed at adults by raising awareness of the risks associated with alcohol to young people;
- to develop educational interventions in schools to encourage the development in children and adolescents of the skills necessary to protect health and to withstand drinking pressures.

CONCLUSIONS

The abuse of alcoholic drinking is increasing among young people as it is assuming the characteristics of a devastating phenomenon, both for the health of individuals and for the safety of the whole society. Data show a direct relationship between alcohol abuse and health problems leading to quite relevant social and economical losses³⁵. The main reason is due to the lack of knowledge, among young people, of the harmful effects of alcohol. Other reasons may be attributed to the false belief, which is very widespread, that alcohol facilitates social relationships. It can be caused also by lack of personal interests, lack of control, family habits, failure to respect laws and the rules of a proper social life. Alcohol consumption affects risk perception and promotes uncontrolled behaviors, contributing devastatingly to this phenomenon. According to the current knowledge, it is not possible to suggest recommended levels of alcohol intake in young people over the age of 18. We cannot quantify non-prejudicial levels of consumption for individual health and public safety. As for young people under the age of 18, full withdrawal of alcohol intake should be encouraged. Adverse health effects can also occur after a single episode of binge drinking leading to irreversible damage. For this reason, it is important to undertake all possible actions to protect young people from drinking pressures to limit the damage they may suffer directly or indirectly because of alcohol abuse. Alcohol use disorder is a complex condition that can affect young people. Alcohol use disorder presumes the existence of medical, social and pathological elements. It is crucial to know and analyze every single element that characterizes this disease for promoting appropriate cures. Therefore, it is of fundamental importance to consider the social consequences of the harmful use of alcohol as an integral part of the disease and their resolution as an integral part of its treatment. The purely medical intervention model is now overcome by biopsychosocial intervention models aimed at understanding and resolving each of the three components characterizing the alcohol use disorder: biological, psychological and social³⁸⁻⁴². Therefore the construction of a therapeutic project for the prevention and treatment of alcohol-related disorders in young people can not deviate from considering all the

social implications affecting the individual, his family, the community of belonging and the whole social sphere. In conclusion, the resolution of unresolved personal social issues is a crucial step for understanding and preventing the risk that young people run every time abuse of alcohol.

Conflict of interests: the authors have no conflict of interests to declare.

***Interdisciplinary Study Group - Centro Riferimento Alcolologico Regione Lazio (CRARL), Società Italiana per Il Trattamento dell'Alcolismo e delle sue Complicanze (SITAC), Società Italiana Patologie da Dipendenza (SIPaD), Società Italiana delle Tossicodipendenze (SITD), Società Italiana di Psichiatria e delle Dipendenze (SIPDip): Giovanni Addolorato, Vincenzo Aliotta, Fabio Attilia, Giuseppe Barletta, Egidio Battaglia, Ida Capriglione, Valentina Carito, Onofrio Casciani, Pietro Casella, Fernando Cesarini, Mauro Cibir, Paola Ciolli, Giovanna Coriale, Angela Di Prinzio, Roberto Fagetti, Emanuela Falconi, Michele Federico, Giampiero Ferraguti, Marco Fiore, Daniela Fiorentino, Simona Gencarelli, Angelo Giuliani, Antonio Greco, Silvia Iannuzzi, Guido Intaschi, Luigi Janiri, Angela Lagrutta, Giuseppe La Torre, Giovanni Laviola, Roberta Ledda, Lorenzo Leggio, Claudio Leonardi, Anna Loffreda, Fabio Lugoboni, Simone Macrì, Rosanna Mancinelli, Massimo Marconi, Icro Maremmani, Marcello Maviglia, Marisa Patrizia Messina, Martino Mistretta, Franco Montesano, Michele Parisi, Roberta Perciballi, Claudia Rotondo, Giampaolo Spinnato, Alessandro Valchera, Valeria Zavan.*

REFERENCES

1. Rehm J, Chisholm D, Room R, Lopez AD. Alcohol. In: Jamison DT, Breman JG, Measham AR, et al. (eds). Disease control priorities in developing countries. Washington (DC): World Bank, 2006.
2. Ceccanti M, Coriale G, Hamilton DA, et al. Virtual Morris task responses in individuals in an abstinence phase from alcohol. *Can J Physiol Pharmacol* 2018; 96: 128-36.
3. Ceccanti M, Hamilton D, Coriale G, et al. Spatial learning in men undergoing alcohol detoxification. *Physiol Behav* 2015; 149: 324-30.
4. Ceccanti M, Carito V, Vitali M, et al. Serum BDNF and NGF modulation by olive polyphenols in alcoholics during withdrawal. *J Alcohol Drug Depend* 2015; 3: 214-9.
5. Carito V, Ceccanti M, Ferraguti G, et al. NGF and BDNF alterations by prenatal alcohol exposure. *Curr Neuropharmacol* 2017 aug 24. doi: 10.2174/1570159X15666170825101308.
6. Ceccanti M, Coccarello R, Carito V, et al. Paternal alcohol exposure in mice alters brain NGF and BDNF and increases ethanol-elicited preference in male offspring. *Addict Biol* 2016; 21: 776-87.
7. Ceccanti M, Inghilleri M, Attilia ML, et al. Deep TMS on alcoholics: effects on cortisolemia and dopamine pathway modulation. A pilot study. *Can J Physiol Pharmacol* 2015; 93: 283-90.
8. Kuntsche E, Rehm J, Gmel G. Characteristics of binge drinkers in Europe. *Soc Sci Med* 2004; 59: 113-27.
9. Grant B, Dawson DA. Age of alcohol onset and its association with DSM-IV alcohol abuse and dependence: results from the National Longitudinal Alcohol Epidemiologic Survey. *J Subst Abuse* 1997; 9: 103-10.
10. Centro di Riferimento Alcolologico della Regione Lazio (CRARL), progetto SAM, Linee Guida, 2017.
11. Vitali M, Sorbo F, Mistretta M, et al.; Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Dual diagnosis: an intriguing and actual nosographic issue too long neglected. *Riv Psichiatr* 2018; 53: 154-9.
12. Vitali M, Mistretta M, Alessandrini G, et al.; Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Pharmacological treatment for dual diagnosis: an update of literature and a proposal of intervention. *Riv Psichiatr* 2018; 53: 160-9.

Treatment of alcohol dependence. Alcohol and the young: social point of view

13. Vitali M, Sorbo F, Mistretta M, et al.; Gruppo SITAC. Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Drafting a dual diagnosis program: a tailored intervention toward patients with complex and intensive clinical care needs. *Riv Psichiatr* 2018; 53: 149-53.
14. Windle M. Alcohol use among adolescents and young adults. *Alcohol Res Health* 2003; 27: 56-62.
15. Cattarinussi B. Bere e variabili socio-culturali. Roma: Franco Angeli Edizioni, 1992.
16. Cottino A. Le culture dell'alcol. Sociologia del bere quotidiano tra teoria ed intervento. Roma: Franco Angeli Edizioni, 1992.
17. Moiraghi Ruggerini A. Alcologia. Milano: Masson, 1996.
18. Relazione del Ministro della salute al parlamento italiano sugli interventi realizzati ai sensi della legge 30.03.2001 n. 125 "legge quadro in materia di alcol e problemi alcol correlati", anno 2015.
19. Rapporto ISTAT. Il consumo di alcol in Italia anno 2016. ISTAT, 2017.
20. Jackson KM, Sher KJ, Wood PK. Trajectories of concurrent substance use disorders: a developmental, typological approach to comorbidity. *Alcohol Clin Exp Res* 2000; 24: 902-13.
21. Droomers M, Schrijvers CT, Stronks K, van de Mheen D, Mackenbach JP. Educational differences in excessive alcohol consumption: the role of psychosocial and material stressors. *Prev Med* 1999; 29: 1-10.
22. Dubow EF, Boxer P, Huesmann LR. Childhood and adolescent predictors of early and middle adulthood alcohol use and problem drinking: the Columbia County Longitudinal Study. *Addiction* 2008; 103 (suppl 1): 36-47.
23. Poulton R, Caspi A, Milne BJ, et al. Association between children's experience of socioeconomic disadvantage and adult health: a life-course study. *Lancet* 2002; 360: 1640-5.
24. Stone AL, Becker LG, Huber AM, Catalano RF. Review of risk and protective factors of substance use and problem use in emerging adulthood. *Addict Behav* 2012; 37: 747-75.
25. Bailey JA, Hill KG, Hawkins JD, Catalano RF, Abbott RD. Men's and women's patterns of substance use around pregnancy. *Birth* 2008; 35: 50-9.
26. Sanchez ZM, Martins SS, Opaleye ES, Moura YG, Locatelli DP, Noto AR. Social factors associated to binge drinking: a cross-sectional survey among Brazilian students in private high schools. *BMC Public Health* 2011; 11: 201.
27. Casswell S, Pledger M, Hooper R. Socioeconomic status and drinking patterns in young adults. *Addiction* 2003; 98: 601-10.
28. Sher KJ, Gotham HJ. Pathological alcohol involvement: a developmental disorder of young adulthood. *Dev Psychopathol* 1999; 11: 933-56.
29. Johnston LD, O'Malley PM, Bachman JG. Monitoring the Future National Survey Results on Drug Use, 1975-2002: Vol. 1. Secondary School Students. (NIH Pub. No. 03-5375). Bethesda, MD: National Institute of Drug Abuse, 2003.
30. White HR, Huselid RF. Gender differences in alcohol use during adolescence. In: Wilsnack RW, Wilsnack SC (eds). *Gender and alcohol: individual and social perspectives*. New Brunswick, NJ: Rutgers Center on Alcohol Studies, 1997.
31. Lee JA, Jones-Webb R, Short BJ, Wagenaar AC. Drinking location and risk of alcohol-impaired driving among high school seniors. *Addict Behav* 1997; 22: 387-93.
32. Mäkelä K, Mustonen H. Relationships of drinking behaviour, gender and age with reported negative and positive experiences related to drinking. *Addiction* 2000; 95: 727-36.
33. Sartor CE, Lynskey MT, Heath AC, Jacob T, True W. The role of childhood risk factors in initiation of alcohol use and progression to alcohol dependence. *Addiction* 2007; 102: 216-25.
34. Cherpitel CJ. Focus on: the burden of alcohol use: trauma and emergency outcomes. *Alcohol Res Curr Rev* 2013; 35: 150-4.
35. WHO - World Health Organization. Global status report on alcohol and health 2014. WHO, 2014.
36. Battagliese G, Pisciotta F, Tramonte L, Nofroni I, Basili S, Ceccanti M. Universitari oggi, professionisti domani: indagine sui consumi dell'alcol. *Journal of Italian Medical Education* 2018: in press.
37. European Charter on Alcohol adopted at the European Conference on Health, Society and Alcohol, Paris, 12-14 December 1995. <https://bit.ly/2vmbzKH>
38. Bersani G, Iannitelli A. Legalization of cannabis: between political irresponsibility and loss of responsibility of psychiatrists. *Riv Psichiatr* 2015; 50: 195-8.
39. Biggio G. Neurobiology of alcohol and pharmacological aspects of nalmefene. *Riv Psichiatr* 2015; 50: 19-27.
40. Valentini M, Biondi M. The emergence of behavioral addictions. *Riv Psichiatr* 2016; 51: 85-6.
41. Ciafrè S, Fiore M, Ceccanti M, et al. Role of Neuropeptide Tyrosine (NPY) in Ethanol Addiction. *Biomed Reviews* 2016; 27: 27-39.
42. Ciafrè S, Carito V, Tirassa P, Ferraguti G, Attilia ML, et al. Ethanol Consumption and Innate Neuroimmunity. *Biomed Reviews* 2018; 28: 49-61.