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Translating Health Evidence: What do we do about alcohol?

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Editorial

The first five articles in this issue of SALUD MENTAL tackle the important issue of alcohol abuse; in these articles, readers will be given a tour of neurodegeneration due to chronic exposure to alcohol, *cravings* or the intense desire to drink, and how to confront it; the obstacle-strewn path to help for those who become sick, and the search for opportunities to help Alcoholics Anonymous groups. All of these papers tell of the vicissitudes that must be overcome in order to rehabilitate those who have become dependent; they tell of the paths to recovery from a disorder that is responsible for an important proportion of the global burden of illness.

Epidemiological studies show that alcohol consumption is on the rise, and the starting age is falling (half of drinkers will start consuming before the legal age to do so, and very few cases start after age 25). The difference between men and women has reduced, as excessive consumption - that is, ingesting large quantities of alcohol per occasion of consumption - is very frequent (17.3% of adolescent men and 11.7% of adolescent women aged 12 to 17, and 53.6% and 20.8% respectively among those aged 18-65).* This type of drinking is associated with an important proportion of social problems such as accidents and violence, including that which is self-inflicted, and other health problems.

International studies place Mexico as one of the most at-risk countries in the Americas. Studies of the global burden of illness** show that while globally, alcohol has third place as a risk factor for becoming ill in men, in Mexico it is first. In women, alcohol takes 12th place, whereas in Mexico it is sixth. The need to strengthen research in this field and translate it into better solutions is clear.

Studies in animal models, such as that by Karla Hernández-Fonseca, Milagros Méndez et al., allow the control of multiple confusion factors that are present when we want to compare people who have been exposed to important doses of alcohol for prolonged periods, with those who have not presented this condition. We know that alcohol damages neurons, and that this damage leads to losses in the infrastructure or function of the brain; in other words, neurodegeneration, which is reinforced by the inhibitory effect on neurogenesis or the process of forming new neurons.

In spite of this complex landscape, we also know of people who, after having been sick, faced important losses in all areas of life, and caused harm and pain to others, have achieved what AA calls sobriety. They can stop drinking, develop skills to cope with the intense desire to drink associated with the illness, return to living productive lives, and reconstruct their social networks. The question, therefore, is can we also document a regeneration?

There is evidence that abstinence from alcohol after developing dependence is associated with a proliferation of mother cells and with the formation of new neurons.*** These paths equip observations derived from epidemiology of what can be proven in the laboratory, with what is observed in research, clinical practice, and the community. The study of neuroregeneration will doubtless lead to improved treatment models.

One of the most important triggers that makes someone start drinking again after having developed dependency, made the vital decision to stop drinking, and managed to maintain abstinence, is the intense desire to drink known as a *craving*. This can be understood as an internal command to drink that cannot be avoided and must be followed, despite knowing the harm it will cause, that it will hurt others, that they will regret it, and that it will take hard work to redo the progress they have made during recovery. For this reason, it is said that we are facing an illness of will. The importance of *cravings* has recently been recognized by being introduced as a diagnostic criterion for alcohol abuse disorders in the fifth version of the Diagnostic and Statistical Manual of Mental Disorders, or DSM-5, by the American Psychiatric Association, or APA.

* ENA 2011. National Addictions Survey 2011, CONADIC, INSP, INPRFM. www.uade.inpsiquiatría.edu.mx

** Murray C, Vos T, Lozano R, Naghavi M, Flaxman AD, Michaud C, Ezzati M, et.al. (2012) Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet, 380(9859):2197–223.

*** Crews F.T., Alcohol-Related Neurodegeneration and Recovery, NIH publications http://pubs.niaaa.nih.gov/publications/arh314/377-388.htm.

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Neuroimaging studies show that seeing photos of alcoholic drinks activates the prefrontal cortex and anterior thalamus in people with alcohol dependency, but not in those who drink moderately. These regions of the brain are associated with attention and regulation of emotion, due to which they have been important models in the study of *cravings*. More recent studies have demonstrated that people with dependency who are in recovery and who show hyperactivity in areas of the prefrontal cortex in a relaxation scenario, are more likely to return to drinking than those with the same disorder but without that activity, and more than healthy controls.* This evidence shows the role of the prefrontal brain in the ability to overcome the intense desire to drink, make decisions, and resist the temptation to drink and therefore relapse.

This difficult-to-control desire can be awoken by a memory; something fixed in the brain which associates initial pleasure or relief of physical or emotional discomfort experienced by drinking, so it is therefore important to avoid these triggers and develop strategies to deal with them. External triggers such as people, places, and things are more predictable and so easier to avoid than internal ones such as losses, enabling achievements to organize a celebration, frustration, and stress. The work by Reyna Gutiérrez et al. gives an opportunity to learn about ways of confronting this intense desire, used by people in recovery.

The cry of: "I just don't know that to do!", which Mónica Carrasco et al. use to introduce their study on barriers to seeking treatment, illustrates many people's desperation to find help controlling their consumption. This cry has its origins in the important treatment gap. According to the National Addictions Survey 2011, in Mexico, only 6.8% of those with alcohol dependency have received formal treatment. The majority of those who have sought treatment received help from mutual support groups. Analyzing and overcoming barriers is certainly a promising way forward; so is strengthening links with Alcoholics Anonymous groups who carry on traditions of helping recovery. The study by Alejandro Sánchez, Sara García Silberman et al., "Analysis of Alcoholics Anonymous' approach to hospitalized patients", illustrates the difficulties faced in finding such alliances.

This evidence highlights the need to make further advances in closing the treatment gap, broadening the offer of treatment with proven models which are enriched by the acquisition of new knowledges, aimed at people who start to experience problems with drinking alcohol, to those who have abuse disorders, to the treatment of psychiatric comorbidity that is so often the case. The treatment of more than 64 complications associated with this illness is important, but more so is the incorporation of measures to identify people at risk or with problems, and the use of timely and brief interventions which are simple, effective, and low-cost, designed to overcome barriers such as lack of time among healthcare staff, resistance or denial by patients, and the delay between the appearance of the illness and the intervention, thereby avoiding escalation to situations which are more complex and harder to treat.

* NIH National Institute of Health Brain patterns may help predict relapse risk for alcoholism. http://www.nih.gov/news/health/may2013/niaaa-01.htm

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