

## Update on Evidence-based Practices in Health Policy and Systems

**The burden of alcohol use: an update on the local and global picture****Mahesh Rajasuriya**<sup>1</sup>Department of Psychiatry, Faculty of Medicine, University of Colombo, Sri Lanka\*Correspondence: rajasuriya@psych.cmb.ac.lk  <https://orcid.org/0000-0003-4536-3270>DOI: <https://doi.org/10.4038/jccpsl.v25i2.8212>

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**Introduction**

Ethanol is popularly referred to as alcohol, although all organic compounds with an -OH segment attached to the alkyl chain are known as alcohols (1). Ethanol is water soluble, because alkyl chain is very short with just two carbon atoms (1). The boiling point of ethanol is 78°C and the density is 0.79 g/ml (1). In this article, the term alcohol refers to ethanol.

Use of alcohol as a psychoactive substance and a cultural and culinary implement has a long history (2). While alcohol has had a significant impact on human civilisation, the chemical alcohol also has various short- and long-term effects on different organs of the body (3). The acute effect on the function of brain is the so-called psychoactive effect.

The primary acute effect of alcohol on brain in the short term is depression of the electrical activity

of the brain, hence the name 'CNS depressant'(4). Alcohol potentiates the inhibitory effects of gamma-amino butyric acid (GABA) and dampens the excitatory effects of glutamate by antagonising N-methyl-D-aspartate (NMDA) receptors (5). Benzodiazepines are the other CNS depressant group among the well-known psychoactive substances. They also act on GABA receptors, and, understandably, show cross-tolerance (4-5). CNS depressants produce increased reaction time, somnolence, respiratory depression; and they do suppress anxiety and insomnia, but only briefly (4-6). While anaesthetics rapidly depress global brain activity, alcohol first impairs highly integrated functions, such as skilled dextral performance (6).

The pattern of alcohol use (Table 1), usually over 12 months, is recognised as a psychiatric disorder when characterised by certain diagnostic criteria (7). The most severe form of alcohol use

**Table 1. Types of alcohol use**

Category of alcohol use	Diagnosis	Description
Pathological alcohol user	Alcohol dependence	More severe form of alcohol use disorder
Pathological alcohol user	Harmful use of alcohol	Less severe form of alcohol use disorder
Non-pathological alcohol user	None	User without an alcohol use disorder
Non-user of alcohol or abstainer or teetotaler	None	User who has not taken alcohol for a considerable period of time (usually 6 to 12 months or lifetime)