

Alcohol Dependence Syndrome: diagnostic criteria

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Abstract

The Alcohol Dependence Syndrome (ADS) is a serious problem of public health. In spite of being deeply studied and having well-established diagnostic criteria, many times clinicians and even psychiatrists do not notice this disorder. The aim of this paper is to make a brief exposition on how men and society have developed their relationship with alcohol, emphasizing the development of the concept of alcoholism in medicine until the definition of ADS in ICD-10 and DSM-IV. The article explains the different ways of alcohol consume and how it influences different levels of risk and severity of its consequences, that evolves as a continuum. At last, it makes a comparison between ADS and alcohol harmful use, very important in the prevention and treatment of such disorders.

Keywords: Alcoholic beverages. Alcohol dependence syndrome. Alcoholism.

Introduction

Alcohol is a substance that accompanies humanity since its early times and has always occupied a privileged place in all cultures as a fundamental element of religious rituals, source of non-contaminated water or else as a constant presence in celebrations and fraternizations, when there are toasts for everyone and everything. Alcohol has been always involved in symbolism, such as Eucharistic wine, the symbol of vital energy, product of the union of contrary elements, water and fire, aqua vitae of alchemy, or in Bachelard's beautiful metaphor¹:

“Aguardiente is firewater, burning water (...) which is inflammable.. It is the communion of life with fire. Alcohol is also food that produces heat in the center of the chest”.

Throughout history, alcohol has had multiple functions, acting as: vehicle of medications, perfumes and magic potions, and especially being the essential component of beverages which accompany food rites of the peoples. It is part of the daily habit of families all over the world, as food and communion bond between people. However, as societies underwent economic and social transformations, mainly with industrial revolution - which provoked the great urban concentrations and multiplied enormously the production and availability of beverages and reduced drastically their prices - there has been a deep change in the way society and human beings relate to alcohol. It is as if the other side of the coin were revealed. That is, the same substance which harmo-

nizes, communes and delights, also stimulates aggressiveness, wrangling and pain, breaking family, friendship and working bonds.

Alcohol beverages bear this ambiguous function; on the one hand they are products overflowing with significances, such as wine on Catholicism or in the sophistication of international culinary and commerce, in which an alcoholic product may cost up to thousands of dollars; on the other hand the exaggerated use of these beverages may cause a severe worldwide public health disorder.

The evolution of the concept of alcoholism

The concept of alcoholism has only appeared in the 18th century, just after the rise in the production and commercialization of distilled alcohol, consequent to the industrial revolution. In this period, two authors have outstood: Benjamin Rush and Thomas Trotter. The former, an American psychiatrist, has been responsible for the celebrated statement, “Drinking starts as an act of freedom, heads towards habit and, finally, sinks into necessity”. The latter was the first to mention alcoholism as a “disease”.² Other relevant author was the Swedish Magnus Huss (1849) who has introduced the concept of “chronic alcoholism”, a state of intoxication by alcohol with physical, psychiatric or mixed symptoms.

Due to the need of criteria with higher reliability and validity, the classificatory system has undergone changes in the second half of the 20th

century and has started to consider problems with alcohol and other drugs which did not involve addiction or dependence. It is evidenced here the name of Jellinek³ with his classical work "The Disease Concept of Alcoholism", which has exerted great influence in the evolution of the concept of this dependence, considering alcoholism as a disease only when users show tolerance, abstinence and loss of control. Tolerance was already understood at that time as the need of increasingly higher doses of alcohol in order to have the same effect, or a decrease of the effect of alcohol with the same doses hitherto consumed; and abstinence syndrome as a picture of physical and/or psychical discomfort after a decrease or suspension of alcohol consumption.

In this classification, Jellinek differentiated disorders due to alcohol use in those involving a clear process of dependence (gamma and delta types) from those without dependence (alpha, beta, epsilon types). However, only in the DSM-III⁴ and in the ICD-9⁵ substance-use disorders without dependence were introduced.

The ICD-8 displayed alcohol addiction as a state of physical and emotional dependence with periods of heavy and uncontrollable consumption, in which the person experienced a drinking compulsion and abstinence symptoms when the consumption ceased. Other pathological drinking patterns such as episodic and excessive drinking were distinguished from addiction due to the absence of compulsion and abstinence.

In 1976, Griffith Edwards and Milton Gross proposed a new syndrome Alcohol Dependence Syndrome (ADS).

Concept of ADS

ADS is not a static disease, defined in absolute terms, but a disorder which installs along life. It is a phenomenon which depends on the interaction of biological and cultural factors e.g., religion and symbolic value of alcohol at each community, that determine how the individual will relate with the substance, within a process of individual and social learning of the way of consuming alcohol. In this learning process, one the most significant phenomena is the appearance of abstinence symptoms. When the person starts ingesting alcohol to relieve these symptoms, a strong association is established sustaining both the development and the maintenance of dependence.

Identification of the components of ADS

According to Edwards⁶, dependence would be "an altered relationship between the person and his/her way of drinking", in which the reasons why the individual started drinking are added to those related to dependence. Therefore, dependence becomes a feedback behavior comprising much more than tolerance and abstinence.

The elements of alcohol dependence syndrome are:

1) Narrowing of the repertoire

Initially, users drink having flexible timetables, quantity and even type of beverage. As time passes by they start drinking more frequently, up to the point of consuming alcohol every day, in rising quantities, increasing the frequency of ingestion and not being worried about the inadequacy of the situations anymore.

In advanced stages subjects consume compulsively, uncontrollably, to relieve the symptoms of abstinence, without concern with the organic, social or psychological harm. Their relationship with alcohol become strict and inflexible, in an all-or-nothing pattern.

2) Importance of the behavior of searching alcohol

With the narrowing of the drinking repertoire, subjects attempt to prioritize the act of drinking, even in unacceptable situations (e.g., driving vehicles, at work). In other words, drinking becomes the center of the user's life, above any other value, health, family and work.

3) Increase in the tolerance to alcohol

As this syndrome evolves, there is the need of rising alcohol doses to

obtain the same effect achieved with lower doses, or the capability of performing activities despite the high blood concentrations of alcohol.

4) Repeated symptoms of abstinence

When there is decrease or interruption of alcohol consumption, signs and symptoms of variable intensity arise. At first, they are mild, intermittent and hardly incapacitating, but in the severest phases of dependence, the most significant symptoms may be present such as intense trembling and hallucinations.

-Descriptive studies have identified three groups of symptoms:

-Physical: slight tremor on the extremities up to generalized), nausea, vomiting, sudoresis, headache, cramps, dizziness.

-Affective: irritability, anxiety, weakness, restlessness, depression.

-Sensoriperception: nightmares, illusions, hallucinations (visual, auditory or tactile).

5) Relief or avoidance of abstinence symptoms by increasing the ingestion of alcohol

This is an important symptom of ADS, which is difficult to be identified in its initial phases. It becomes more evident with the progression of the condition, when patients admit their drinking in the morning to feel better, as they remained all night without ingesting ethylic derivatives.

6) Subjective perception of the need of drinking

There is a psychological pressure to drink and relieve the symptoms of abstinence.

7) Reinstallation after abstinence

Even after long periods of abstinence, if patients relapse, they will rapidly reestablish the former dependence pattern.

This systematization of ADS proposed by Edwards had its clinical validity proved by innumerable studies and has modified the understanding of alcohol-related problems by medicine, influencing the subsequent classifications.

Difference between dependence and harmful use

As it was presented, there are the most varied forms of alcohol consumption, in a complex interaction between biological, cultural and environmental factors, in which the result, most of times, is not that of dependence, even for those who in some period of their lives had a problematic use of this substance.

The ADS proposed by Edwards creates a clinical distinction between dependence proper and the related problems, establishing variable degrees of risk and problems caused by the use of alcohol, arranged in two dimensions: one associated with the psychopathology of drinking, alcohol dependence, and other in which the several problems stemming from alcohol use or dependence are distributed. (Figure 1) displays these dimensions, being the horizontal axis the representation of dependence and the vertical axis the representation of the dimension problems.

In *quadrant I* are situated subjects who, as they become more dependent, start having more alcohol-related problems. In *quadrant II* are found those who despite having problems with alcohol (at work, in the family, traffic accidents, etc) do not show dependence, that is, they have harmful use. In *quadrant III*, are displayed subjects who have no alcohol problems or dependence. They are drinkers with low-risk consumption. *Quadrant IV* is blank as there is no alcohol dependence without problems related to its consumption. This division in quadrants is currently used to describe the pattern of drug consumption. It indicates the different forms and levels of relationship of subjects with alcohol, establishing peculiar consumption patterns along time, highlighting that subjects may have problems with any consumption pattern.

With its publication, the concept of ADS had a strong impact in the development of the DSM-III⁴, which characterized abuse of alcohol and other drugs according to patterns of pathological use and harm in the social and occupational functions related to the use, and for the cate-

gory of dependence, besides that, demanded the presence of tolerance or abstinence.

One of the main characteristics of ADS, the distinction between dependence and the problems stemming from alcohol use, has also inspired the authors of the DSM-III-R⁷ to establish criteria for the identification of harmful use of substances and its differentiation from dependence. The classification of the DSM-III-R for harmful use and dependence of alcohol has influenced both the DSM-IV⁸ and the classificatory system developed by WHO, the ICD-10.⁹

The classifications of the DSM-III-R, DSM-IV and the ICD 10 have similar criteria for alcohol dependence (*Table 1*). The same does not occur, however, with the diagnosis of harmful use. A common point between these classifications is the impossibility of diagnosing harmful use in subjects who currently met criteria for dependence. On the other hand, the DSM-IV excludes the diagnosis of harmful use in subjects who had once been dependent, whereas the ICD 10 does not prevent the posterior diagnosis of harmful use in subjects with diagnosis of dependence in the past (*Table 2*). Although Edwards had clearly demonstrated the distinction between dependence and problematic use of alcohol, what was confirmed by subsequent studies, the diagnostic classification of harmful use, such as defined by the ICD-10 and DSM-IV criteria, still has low validity and reliability.

Consumption pattern

In the individual assessment of patients, besides diagnosing dependence or harmful use, their consumption pattern should be investigated in order to establish the severity level of its use. For this same measure it is used the concept of alcohol unit, being equivalent to 10 to 12 g of pure alcohol. When multiplying the amount of drinking with its alcohol concentration, the equivalent alcohol units are obtained. Although being a controversial issue, consumption rates of 21 units along one week for men and 14 units for women are deemed low risk of developing problems.² (*table 3*).

Besides, being a disorder with multiple repercussions in the subject's health, ADS also shows several degrees and forms. ICD-10 has the classification F10. Mental and behavioural disorders due to use of alcohol, with the following subdivisions:⁹

- F10.0 Acute intoxication
- F10.1 Harmful use
- F10.2 Dependence syndrome
- F10.3 Withdrawal state
- F10.4 Withdrawal state with delirium
- F10.5 Psychotic disorder
- F10.6 Amnesic syndrome
- F10.7 Residual and late-onset psychotic disorder
- F10.8 Other mental and behavioral disorders
- F10.9 Unspecified mental and behavioral disorder.

Final considerations

In the last years there has been an increasing accumulation of evidence on the reliability and validity in the diagnosis of alcohol dependence, either in studies with clinical and population samples, or in genetic studies performed in several countries of the world.

Despite all this progress, the criteria for dependence still have to be refined. Several researchers are interested in identifying subtypes of alcoholism, which would react differently to different treatments. Besides, the criteria for dependence and harmful use probably differ in the adolescent population and this is an important topic for further research.

Regarding the classification of harmful alcohol use, this surely will be one of the topics of discussion in the working group of the DSM-V, which will investigate its role and definition, aiming to increase its

diagnostic validity and reliability.¹⁰

Conclusion

ADS is a psychiatric disorder with severe worldwide individual, social and economic repercussions.

Its clinical picture is well studied and known and although its diagnostic criteria are clear and have been established several years ago, alcohol-related disorders are still a drama for public health, both for its difficult treatment and by the challenge represented for physicians to identify initial cases and, sometimes, even more advanced pictures.

In this article ADS is presented in its genesis and development as a medical concept up to reach its current definition both in the ICD-10 and in the DSM-IV. The elements which compose its clinical picture are highlighted and compared with harmful use of alcohol.

This distinction is important in order to investigate, in the clinical practice, the problems related to the different forms of alcohol use, which are displayed in several levels of risk and severity and which evolve as a continuum.

It is stimulated therefore early diagnosis and treatment and the interruption of the course of a disease which progresses slowly and insidiously but devastatingly in all dimensions of life.

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