

A Study on the Effect of Alcoholism on the Alcoholic Patients

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ABSTRACT

This study aimed to develop a systematic review of literature about psychological stress, alcohol consumption and gender. Twelve studies have found associations, either positive as negative, between stressful events and alcohol consumption for both, men and women. Associations were identified exclusively for men in other seven studies. We conclude that the evidence seems to be stronger for the relationship between stress and alcohol consumption especially among men. Alcohol consumption, particularly heavier drinking, is an important risk factor for many health problems and thus, is a major contribute to the global burden of diseases. The most common disease categories that are entirely or partly caused by alcohol consumption include infectious diseases, cancer, diabetes, neuropsychiatric diseases, cardiovascular diseases, liver and pancreas diseases, and unintentional and intentional injury. These findings underscore the need to develop effective prevention efforts to reduce the pain and suffering, and the associated costs, resulting from excessive alcohol use.

KEYWORDS: Alcoholism, alcoholism and family relationship, heavy drinking, disease risk protective factors, life change events.

I. INTRODUCTION

Alcoholism is a growing medical and public health issue both in adults and in the younger generation. It is a multi etiological phenomenon influenced by genetic, psychological, cultural and other factors. Alcoholic beverages have traditionally been prepared from various ingredients such as grapes, hops, rice, honey, etc. Drinking prevalence has varied and is more pronounced in women and the youth. Alcoholism is shown to be of neuro physiological etiology and may lead to impairment of all human body systems.

The most frequent cause of death in alcoholics are diseases of the cardiovascular system. The problem of alcoholism at workplace is very important since by affecting health and reducing work productivity it leads to accidents, injuries and decreased working capacity. Efficient solving of alcoholism and related problems includes early detection, so it is necessary to orient the health care services towards primary prevention and early interventions.

Some studies also have pointed out the possible explanation for risky alcohol consumption as a coping strategy in face of stressful experiences. The tension reduction hypothesis proposes that individuals with alcohol positive expectations tend to increase the consumption of alcohol when considering the possibility to experience a situation of stress. Drinking would be used to reduce stress or anxiety, possibly due to the sedative or depressant effect of alcohol on the nervous system. The consumption would therefore be enhanced by the effects of tension reduction obtained [1][2].

AIM AND OBJECTIVES

The aim of the study was to identify the impact of alcoholism on the family members of the alcoholic patients with regard to various aspects such as mental health, domestic violence, interpersonal relationships, and financial burden on the family.

II. METHODOLOGY

After obtaining informed written consent from the patients, routine history and physical examination of the individual was done. Another structured questionnaire was used to detect the impact on the psychological aspect, domestic violence, interpersonal relationships, and financial burden in the family, from the spouse or the family member accompanying the person. Other variables included in the study were: socio-demographic variables, laboratory parameters, abdomen

ultrasonography (USG), and upper gastrointestinal endoscopy (UGIscopy).

ETHANOL PHARMACOLOGY

To understand how lab analysis can be a benefit in diagnosing an alcohol use disorder, it is important to briefly review ethanol metabolism. Ethanol (C₂H₅OH) is a colorless, volatile, flammable, water soluble liquid that can be produced by naturally by the fermentation of certain carbohydrates, or synthetically by the hydration of ethylene. Described as tasteless with a burning sensation when ingested, alcohol is rapidly absorbed into the blood stream from the mucous membranes (including the mouth), stomach, small intestine, and colon. Absorption could be impaired or delayed by the presence of food in the stomach. Because of its high-water solubility, alcohol can distribute from the bloodstream into all tissues.

CONDITIONS FOR WHICH ALCOHOL IS A COMPONENT CAUSE

Disease and injury conditions for which alcohol consumption is a component cause contribute more to the global burden of disease than do alcohol-specific conditions. The following are main disease and injury categories by alcohol consumption.

- Infectious disease
- Diabetics
- Neuropsychiatric disease
- Cardiovascular disease
- Liver and pancreas disease
- Unintentional and intentional injury.

INDIVIDUAL DISEASE AND INJURY CONDITIONS ASSOCIATED WITH ALCOHOL USE

Neuropsychiatric Disorders

With respect to neuropsychiatric disorders, alcohol consumption has by far the greatest impact on risk for alcohol dependence. Thus, mental disorders may be caused by AUDs or alcohol use, AUDs may be caused by other mental disorders, or third variables may be causing both AUDs and other mental disorders. This complex relationship makes it difficult to determine the fraction of mental disorders actually caused by alcohol consumption.

Diseases of the Liver and Pancreas

Alcohol consumption has marked and specific effects on the liver and pancreas, as

evidenced by the existence of disease categories such as alcoholic liver disease, alcoholic liver cirrhosis, and alcohol-induced acute or chronic pancreatitis [3].

It is important to note that given the same amount of drinking, the increase in the risk for mortality from these diseases is greater than the increase in risk for morbidity, especially at lower levels of consumption. This finding suggests that continued alcohol consumption, even in low doses, after the onset of liver or pancreas disease, increases the risk of severe consequences.

EFFECT OF ALCOHOL ON PEOPLE OTHER THAN THE DRINKER

The discussion has centered on alcohol's effects on health as measured by indicators that primarily are based on the records of hospitals and health systems. Reflecting the information contained in those records, most of the effects considered refer to the health of the drinker. However, this analytic approach omits two large classes of adverse consequences of alcohol: social harm to the drinker and social and health harms to others that result from the drinker's alcohol consumption. According to the Constitution of the WHO (WHO 1946), health is "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" (p. 100); this definition therefore takes into account not just physical and mental harms but also social harms, both for the drinker and for others. The recent study was identified the following harms to associated with drinking;

- Harms identified based on records—these included deaths and hospitalizations (e.g., attributed to traffic injuries because of driving under the influence), child abuse or neglect cases involving a caregiver's drinking, and domestic and other assaults; and
- Harms based on survey reports—these included negative effects on coworkers, House hold members, other relatives and friends, strangers, and on the community as a whole.

PREVALENCE OF ALCOHOL CONSUMPTION

In general, men drink more often than women. However, the habit, the type of alcoholic drink and the intensity of alcohol drinking show different geographical distribution worldwide, and a series of factors such as sex, age and different social and economic factors have their impact as well. Alcoholism in Islamic countries shows a very

low incidence, so it is still not seen as a great issue there.

As to educational level, a great difference has been observed between rural and urban areas: in urban areas, alcoholism is more prevalent in persons with higher educational level, whereas in rural areas it is associated with those with lower education [4]. The drinking image has been changing worldwide – with growing numbers of women and younger people as drinkers nowadays.

Higher percentages of symptomatic alcoholism have been observed in women, and the most frequent reasons are family disorders. Relationships in the primary family are very important: alcoholics come into contact with alcohol earlier, they start drinking more often earlier, and there is a tolerance to alcohol drinking in their primary family.

PATHOPHYSIOLOGICAL CHANGES IN THE BODY

Alcoholism is defined as a state with active signs and symptoms of excessive drinking of alcoholic drinks, including increased tolerance to alcohol and changes in behavior: a pathological desire for alcohol after drinking small quantities; a need to drink the following day; and amnesia after alcohol drinking.

Alcoholism as a disease shows three characteristic stages: social consumption, alcoholism, and irreversible impairments. An **alcoholic** is a person who drinks alcohol excessively, and in whom alcohol addiction has led to psychological, physical and social disorders. The consequences of long-lasting alcohol consumption are manifested by impairments of a number of body systems such as digestive, nervous, cardiovascular, and reproductive systems, including mental disorders.

In heavy alcohol addicts with severe destruction of hepatic tissue, gluco energetic capacity is reduced, so they show a 45%-70% probability of hypoglycemia and reduced tolerance to carbohydrates [5].

The following are pathophysiological reaction;

- Dermatological reactions
- Allergic or immune response
- Gastrointestinal reaction
- Central nervous system
- Cardio vascular system
- Respiratory system

TYPES OF TREATMENT

Many treatment strategies have been tried

to treat people with alcohol use disorders ranging from quick one hour sessions or one weekend seminars to life-long therapies. Proper treatment depends on proper diagnosis, and understanding that there is a spectrum of drinking disorders. This section discusses treatment tools including

- Behavioral therapies,
- Pharmacologic therapies,
- Complementary and alternative therapies,
- Support group.

DETOXIFICATION

Patients that present in alcohol withdrawal often require pharmaceutically assisted detoxification. Withdrawal symptoms can begin hours to days after cessation of heavy, prolonged alcohol use. The following 8 criteria listed in the DSM-5 should be noted within several hours to a few days [6]:

- Autonomic hyperactivity
- Worsening tremor
- Insomnia
- Nausea or vomiting
- Transient visual, tactile, or auditory hallucinations or illusions
- Psychomotor agitation
- Anxiety
- Generalized tonic-clonic seizures.

Treatment of alcohol withdrawal is predominantly supportive, with use of sedatives to prevent seizures and alleviate CNS hyperactivity. Benzodiazepines and barbiturates have both been used successfully in the treatment of acute, severe alcohol withdrawal. Both are GABAA agonists, and increase the flow of the chloride ion through the channel causing inhibition of excitatory biogenic amines. Barbiturates cause the channel to stay open (increasing potential for overdose), while benzodiazepines allow the channel to open and close at a more rapid rate. Because of the improved safety profile, benzodiazepines are the most commonly used sedative to manage alcohol withdrawal. Barbiturates (phenobarbital) or propofol can be added to benzodiazepines to treat refractory DTs.

STAGES OF CHANGE AND MOTIVATIONAL INTERVIEWING

The **first stage is precontemplation**. This stage may be categorized by rationalization, and denial of the severity of consequences. Patients in this stage

may feel that the effort of changing is not justified by the reward.

The **second stage is contemplation**. Patients in this stage are becoming more aware of the benefits of changing their behavior, and understanding the severity of the consequences of avoiding change.

The **third stage of change is preparation**. In this stage, the patient comes to the realization that change may not be easy, but is still necessary. The patient makes mental and physical adjustments necessary to make the change [7][8].

The **fourth stage is action**. In this stage, the individual makes observable changes necessary to reduce or eliminate consequences.

The **fifth stage is maintenance**. This stage may be categorized as relapse prevention. The patient learns the stresses and triggers of temptation to return to old behavior, and utilizes new behaviors (learned in the action step) to prevent relapse.

The **sixth and final stage of change is termination**. This is the theoretical stage in which there is no longer a temptation or chance to relapse.

III. CONCLUSION

The study shows that the problems of alcohol disorder have been associated with increased suffering to the family members, which contributes to a high level of interpersonal conflict, domestic violence, financial difficulties, and psychological disturbances, along with increasing the risk of developing comorbidities associated with alcohol disorder by the individual, which further adds to burden of the family. Alcoholism is an emerging major health problem in India. Hence it is necessary to educate the society about the consequences of chronic alcoholism through various health education programs. It can further be controlled by effective control policies on alcohol production, taxation, and promotion, and by introduction of programs to help the individuals with addiction as well as their family members where they can seek help by enrolling in de-addiction programs similar to the Community Reinforcement And Family Training (CRAFT) for engaging unmotivated drug users in treatment and ARISE methods functioning in other countries.

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