

There is No Prototypic “Alcoholic” Clinical Features Point to Five Alcoholic Subtypes

Americans with alcohol dependence tend to fit into one of five personality types, putting to rest theories that there is a "typical alcoholic." A study described in *Drug and Alcohol Dependence* provides what may be the clearest picture yet of alcohol addiction.

The study analyzed the clinical features of 1,484 persons found to be alcohol-dependent through the 2001-2002 National Epidemiological Survey on Alcohol and Related Conditions and then grouped those persons according to their clinical features. The study found that there is no such thing as a "typical alcoholic," rather that alcohol-dependent subjects tend to fall into five subtypes—young adult, young antisocial, intermediate familial, functional, and chronic severe.

“Our findings should help dispel the popular notion of the ‘typical alcoholic,’” notes first author Howard B. Moss, M.D., NIAAA Associate Director for Clinical and Translational Research. “We find that young adults comprise the largest group of alcoholics in this country, and nearly 20 percent of alcoholics are highly functional and well-educated with good incomes. More than half of the alcoholics in the United States have no multigenerational family history of the disease, suggesting that their form of alcoholism was unlikely to have genetic causes.”

Clinicians have long recognized diverse manifestations of alcoholism and researchers have tried to understand why some alcoholics improve with specific medications and therapies while others do not.

Previous efforts to identify alcoholism subtypes focused primarily on individuals who were hospitalized or otherwise already in some kind of rehabilitation treatment program for their alcoholism. However, recent reports from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), a nationally representative epidemiological study of alcohol, drug, and mental disorders in the United States, suggest that only about one-fourth of individuals with alcoholism have ever received treatment. Thus, a substantial proportion of people with alcoholism were not represented in the samples previously used to define subtypes of this disease.

In the study, Moss and colleagues applied advanced statistical methods to data from the NESARC. Their analyses focused on the 1,484 NESARC survey respondents who met diagnostic criteria for alcohol dependence, and included individuals in treatment as well as those not seeking treatment. The researchers identified unique subtypes of alcoholism based on respondents’ family history of alcoholism, age of onset of regular drinking and alcohol problems, symptom patterns of alcohol dependence and abuse, and the presence of additional substance abuse and mental disorders:

- **Young adult subtype.** This is the most common alcohol-dependent subtype, constituting **32 %** of alcohol-dependent Americans. They are typically young, male adult drinkers with relatively low rates of co-occurring substance abuse and other mental disorders. They have a 22 percent rate of familial alcoholism and rarely seek help for their drinking.
- **Young antisocial subtype.** This is the second most common category of alcohol-dependent individuals, constituting **21%** of alcohol-dependent Americans. They are apt to be in their mid-

20s and to have started drinking early. About half come from families with alcoholism, and about half have a diagnosis of antisocial personality disorder. Three-fourths of these individuals smoke cigarettes; two-thirds meet criteria for marijuana abuse or dependence. About a fourth use cocaine, and about a fifth abuse opioids. About one-third seek treatment for their drinking problem.

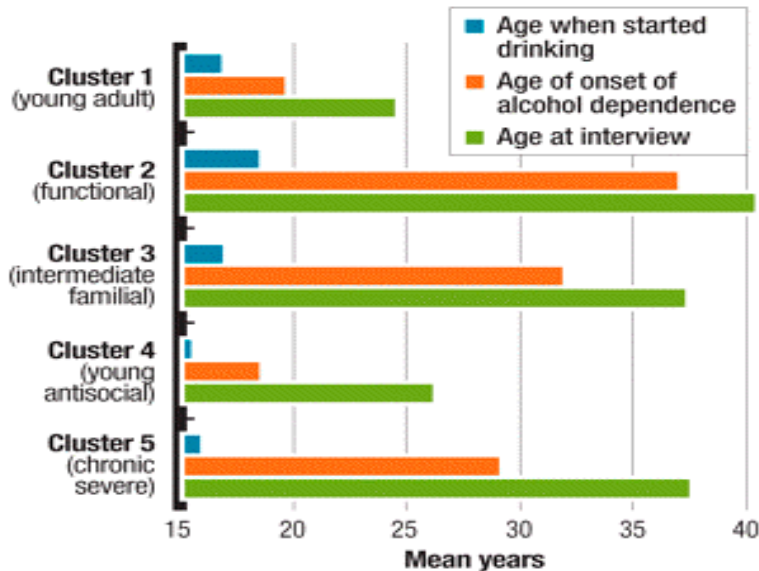
- **Intermediate familial subtype.** 19% of alcohol-dependent Americans fall into this category. They tend to be middle-aged, with about half coming from families in which a member has alcoholism. Almost half have experienced a major depression, and almost a quarter have been diagnosed with bipolar disorder. About one-fifth abuse marijuana or cocaine. One quarter of these people seek treatment for their drinking problem.
- **Functional subtype.** 19.5% of alcohol-dependent Americans fall into this category. They are, on average, older than other subtype members and tend to drink in an excessive, although less severe, manner than other subtypes. They have the highest family income, are college-educated, and are most likely to be married. They also include the highest proportion of retired individuals. From a psychosocial perspective, they represent the highest functioning subtype of alcohol-dependent persons. Nonetheless, they may still ultimately be at significant risk of the biomedical consequences of alcohol dependence. Seventeen percent seek treatment for their drinking problem.
- **Chronic severe subtype.** This is the smallest category of alcohol-dependent Americans, constituting 9% of them. The subtype is composed mostly of middle-aged persons who had early onset of drinking. Over three-fourths come from families afflicted with alcoholism. This subtype has the highest probability of all the subtypes of having both first- and second-degree family members with alcohol dependence. Almost half have antisocial personality disorder. Of all the subtypes, they have the highest rate of major depression, social phobia, and bipolar, anxiety, and panic disorders. Over three-fourths smoke cigarettes. They often abuse substances in addition to alcohol. Two-thirds seek help for their drinking. They are the largest subgroup who seek treatment.

Unexpected Results Found

The study results showed that many of the individuals who met diagnostic criteria for alcohol dependence were young adults. An initial assumption was that there would be a substantial proportion of people with alcohol addiction being from the *chronic recurring subtype* that is generally seen in Veterans Administration hospitals and in other kinds of settings where people treat chronic disease. Another surprise was the breakout in terms of family history of alcohol problems and the fact that only about half the sample had familial transmission of alcohol dependence."

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5 subtypes of alcohol-addicted persons have been identified – young adult, functional, intermediate familial, young antisocial, and chronic severe. The subtypes start drinking at various ages and also become alcohol-addicted at various ages. Like other disorders with subtypes, the type and intensity of treatment is determined by the subtype of the illness.



Varied Treatment Methods – No “One-Size-Fits-All”

The study results suggest that certain therapies might work better with certain subtypes than with others. In fact, the next step is to see whether certain types of therapies work best for this or that subtype. Until such results are obtained, how should individuals in the various categories be treated?

"The young adult variety may be addressed with screening and brief intervention techniques rather than much more expensive approaches to therapeutic intervention," Moss advised. "It may also be—and again this is speculation, as we have to do the studies—that certain types of pharmacotherapies that are now available could be better targeted to this subgroup. For example, this subgroup might benefit from pharmacotherapy that reduces the reinforcing effect of alcohol."

Since the antisocial group has the worst prognosis of any of the subtypes, Moss said, "the focus there has to be on complete abstinence and elimination of other forms of substance abuse and also mainstreaming their behaviors so that they are much more like the rest of society."

"The functional subtype," Moss emphasized, "represents individuals who essentially have fewer psychosocial consequences from their alcohol dependence. So the focus of the therapy there needs to be on recognition of the impairment that their alcohol dependence is producing in their life and also focusing on either abstinence or a return to a much less hazardous level of drinking."

As for individuals with chronic severe alcohol dependence, "We would certainly assume that they are going to need substantial treatment," said Moss. "They might benefit from therapies that are directed toward relapse prevention." Furthermore, this group is going to have substantial psychiatric comorbidity, he pointed out, "so we have to simultaneously address their alcohol use disorder as well as manage their psychopathology."

The authors also report that co-occurring psychiatric and other substance abuse problems are associated with severity of alcoholism and entering into treatment. Attending Alcoholics Anonymous and other 12-step programs is the most common form of help seeking for drinking problems, but help seeking remains relatively rare.

Charles O'Brien, M.D., Ph.D., a professor of psychiatry at the University of Pennsylvania, who was unaffiliated with the study, states that this study marks an important step in subcategorizing alcoholism because it includes a community sample rather than simply examining the 25 percent who present for treatment; it is based on a large dataset, and the five subtypes seem quite recognizable based on the data used: family history, age of onset, and presence of other psychiatric disorders. "The next step," says O'Brien, "is to identify biomarkers for even more precise subcategories, such as genotype or biochemical test."

References:

Howard B. Moss, Chiung M. Chen, Hsiao-ye Yi. Subtypes of alcohol dependence in a nationally representative sample. *Drug and Alcohol Dependence, Volume 91, Issues 2-3, 1. 2007, Pages 149-158*