2
The Alcoholism Problem

2. The Alcoholism Problem

Alcoholism constitutes a vast syndrome of medical, economic, psychological, and social problems related to the consumption of alcohol (ethanol) (144,216). The social and economic costs to society of alcoholism, particularly to the health care system, are staggering. From 10 million to 15 million Americans have serious problems directly related to the use of alcohol, and up to 35 million more individuals are estimated to be affected indirectly (40). Although estimates are imprecise, alcoholism and alcohol abuse have been implicated in half of all automobile accidents, half of all homicides, and one-quarter of all suicides (85,216).

Alcoholism may be responsible for up to 15 percent of the Nation's health care costs and for significantly lowering the productivity of workers at all strata of the economic system. (A full discussion of the economic costs of alcohol abuse is reserved for ch. 6.) But the primary costs of alcoholism to society are more than economic. Alcoholism and alcohol abuse also adversely affect the health, social relations, psychological well-being, and economic status of a large number of individuals. The extent of these effects is difficult to determine, because an alcoholic may create problems for many others, including family, friends, and coworkers.

OVERVIEW OF ALCOHOLISM

Use of Alcohol

A substantial percentage of the American population uses alcoholic beverages, at least occasionally. The Gallup poll, which began collecting data about alcohol use in 1939, has reported relatively stable patterns in alcohol use over the past few decades. Consistently, about two-thirds of the adult population (66 percent of women and 77' percent of men) report at least occasional use of alcoholic beverages. In recent years, the range in use has been from 60 to 70 percent. Per capita consumption has also remained stable at about 2.6 gallons per year. In the United States, however, about 10 percent of the population accounts for more than half the alcohol consumed; less than half is consumed by a large group of infrequent drinkers and a small group of regular moderate drinkers (168).

Most users of alcohol are not considered alcoholics, "problem drinkers," or even "heavy drinkers." A National Academy of Sciences panel has estimated that among adults, only 9 percent are problem drinkers (in some cases, this includes individuals who drink 1 ounce per day of pure alcohol) (210). Less than half of those considered heavy drinkers—10 percent of those who regularly drink alcohol—would be consid[red alcoholic.

Effects of Alcoholism

Reliable data on the effects of a coholism and alcohol abuse are difficult to obta n, in part because of the many individuals affected and the complexity of effects, but also because alcohol use is widespread, and for most individuals, a normal social custom. Moreover, the absence of information about individuals with alcohol-use problems who are not in formal treatment programs makes it difficult both to assess the pervasiveness of the alcohol abuse problem and to document the impact of current alcoholism treatment efforts.

Alcohol (ethanol) —especially when consumed in large quantities or habitually—is related to various health problems such as organ damage (particularly, the liver), brain dysfunction, cardiovascular disease, and mental disorders (85). It has a significant effect on mortality rates; in general, the life expectancy of alcoholics is 10 to 12 years shorter than average (6,198). Cirrhosis of the liver, a direct result of long-term alcohol con-

sumption, is currently the fourth leading fatal disease in the United States (80). When other effects of alcohol abuse are counted, alcoholism is an even more significant mortality factor. In addition, alcoholics have significantly higher suicide rates than do nonalcoholics (up to 58 times greater in some groups of alcoholics) and accident rates that are significantly greater than normal (see 85). Each of these factors results in a significant number of deaths for individuals who abuse alcohol at all age levels (254). In terms of morbidity, it has been estimated that alcoholic patients comprise from so to 50 percent of all hospital admissions (120), excluding obstetrics. While these admissions are most often for other disorders, alcoholism complicates the patients' recovery.

Estimated to be a significant factor in up to 40 percent of all problems brought to family courts (85), alcohol use is known to be a major factor in divorce and has been associated with destabilization of families. In addition, automobile, home, and industrial accidents and crimes such as assault, rape, and wife battering have also been associated with alcohol use (85). In recent years, public recognition of the problems involved in alcohol use has increased. For example, only 12 percent of families surveyed in a Gallup poll in 1966 agreed that liquor adversely affected their family lives. In 1981, this figure rose to 22 percent, and a recent Gallup poll indicated that 33 percent of families surveyed indicate that alcohol use has caused serious family problems.

Governmental recognition of the problem resulted in the establishment, just over 10 years ago, of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the requirement of periodic reports to Congress on progress in combating alcoholism (216,223). Health professionals and researchers are becoming more knowledgeable about alcoholism as more data about the problems posed by the effects of alcoholism become known (see, in particular, 144).

Treatment

Despite the range of problems caused by alcoholism and alcohol abuse, an estimated 85 percent of alcoholics and problem drinkers receive no treatment for their condition (216). In 1977, although approximately 1.6 million alcoholics and problem drinkers received treatment from private and public sources and over 600,000 alcoholics participated in meetings of Alcoholics Anonymous (AA) groups, at least 8 million to 10 million other alcoholics and problem drinkers did not receive any treatment. In considering the effectiveness of current treatments, it should be recognized that the majority of alcoholics and problem drinkers do not receive treatment.

PERSPECTIVES ON ALCOHOLISM

Although alcoholism and alcohol abuse are today acknowledged to be multifaceted medical, psychological, and social problems, they have not always been viewed this way. Alcohol abuse was, historically, either accepted as normal behavior or, in some cases, viewed as a moral problem (see 1) and treated as criminal behavior. In the 1950's, though, both the World Health Organization (WHO) and the American Medical Association gave formal recognition to alcoholism as a medical disease (see 149,150). The most prominent advocator of a medicall, based concept of alcoholism is a physician, Jellinek (149), whose work has been the basis of most currently used definitions.

Despite increasing emphasis on alcoholism as a medical rather than a criminal or moral problem, experts continue to disagree about what constitutes alcoholism, and there is probably no single best definition (199). Some definitions of alcoholism consider merely the quantity of alcohol consumed or the frequency of drunkenness (51). More recent definitions consider the degree to which serious medical or social dysfunctions result from alcohol use (282) and the degree of psychological

dependence or physical addiction to alcohol (284). Whatever definition is employed, however, it is often difficult to obtain reliable diagnostic data (118). This compounds definitional problems and influences diagnostic decisions and treatment of alcohol abusers.

There are degrees of alcohol use, some of which are associated with problems and some of which are not (49,250). Pattison has identified several developmental patterns of alcohol use and misuse (241). One pattern, that of the "alcohol experireenter, " may lead to nondrinking if the experimenter's initial experience is adverse or not pleasurable. Other patterns include "occasional drinking" (drinking only when drinking is socially expected) and "well-controlled drinking" (controlling alcohol use to avoid any adverse consequences, the result of a personal cost-benefit calculation). Higher alcohol use patterns include "habit" drinkers (who drink in larger amounts and may experience physical, psychological, or social effects), and "heavier," though still socially acceptable, drinkers (who are psychologically vulnerable and suffer degradation of function). Alcohol dependence can develop because drinking allays some psychological symptom, provides escape from chronic unhappiness, reflects social and cultural disorganization, or is used to "treat" a physical symptom. Depending on the sociocultural context, different patterns of "use, misuse, and abuse" become the focus of diagnosis and treatment.

Some writers about alcoholism have taken a dimensional approach. Polich and Orvis (249) identified three dimensions: consumption, dependence, and adverse consequences. Marconi (190) identified these three and also included etiology. The key to a dimensional approach is that a drinking problem may be defined in terms of any one or a combination of the dimensions. The precise time at which a drinking problem is serious enough to be called alcoholism has not yet been fully described, despite a range of attempts at reaching consensus, such as that by WHO (348,349), the National Council on Alcoholism (214), and by various empirical attempts (140,147,148,286). The most useful definitions of alcoholism for treatment assessment purposes seem to be those that evaluate the occurrence of significant alcohol-related life problems, including mental, legal, medical, and vocational problems (277).

The most recent Diagnostic and *Statistical A4anual* (8) distinguishes between "alcohol abuse" and "alcohol dependence. " Diagnostic criteria for "alcohol abuse" include: drinking nonbeverage alcohol; going on binges (remaining intoxicated throughout the day for at least 2 days); occasionally drinking a fifth of spirits (or its equivalent in wine or beer); and having had two or more blackouts, as well as impaired social or occupational functioning due to alcohol. In addition, problems must have existed for a month or more. The diagnostic criteria for alcohol dependence, traditionally referred to as alcoholism, include the criteria for alcohol abuse and two additional criteria: tolerance and withdrawal. Tolerance is defined as "the need for markedly increased amounts of alcohol to achieve the desired effect, or diminished effect with regular use of [the] same amount. " Withdrawal includes "morning 'shakes' and malaise relieved by drinking. "

The determination of the underlying causes of alcoholism has been even more intensely debated than the definition of alcoholism. At least three major views of the etiology of alcoholism can be identified: 1) medical, 2) psychological, and 3) sociocultural. Each of these perspectives is associated with a particular set of treatment approaches. As described below, however, treatment is often based on several etiological perspectives, and practitioners often accept the view that alcoholism is based on multiple factors.

Medical Perspective

The medical perspective focuses on biological, chemical, and genetic etiological factors. From the medical perspective, alcoholism is considered a disease caused by physiological malfunctioning and requires treatment by a physician. Jellinek (149) posited that alcoholism represents a multifaceted syndrome. In many cases, the alcoholism syndrome follows a particular course of progressive deterioration unless the problem is treated. Jellinek believed that the only effective form of treatment is that whose goal is of total abstinence from alcoholic beverages.

Alcoholism may be conceptualized as the "last stage in a continuum of drinking that extends from social drinking to heavy drinking to problem drinking to alcoholism, where each population [of drinkers] represents a subcategory of the one preceding it" (166). For present purposes, however, the terms alcoholic, alcohol abuser, and problem drinker will often be used interchangeably. This usage reflects the fact that problems associated with alcohol use and abuse may be progressive, but that drinkers may seek treatment at any point in the continuum and for various reasons. The treatment literature does not always distinguish appropriateness of treatments for patients at different points in the continuum.

From Jellinek's perspective, "habitual symptomatic excessive drinking" was distinct from the disease of alcoholism (149,150). Jellinek suggested there were four primary forms of alcoholism:

- *Gamma* alcoholism, said to produce the greatest and most serious kinds of damage, has five characteristics:
  1. acquired increased tissue tolerance,
  2. adaptive cell mechanism,
  3. physical dependence (withdrawal symptoms and craving),
  4. loss of control, and
  s. a definite progression from psychological to physical dependence.
- *Delta* alcoholism shares the first three characteristics of gamma alcoholism, but is characterized by the inability to abstain rather than loss of control; furthermore, delta alcoholism does not include the progression from psychological to physical dependence.
- *Beta* alcoholism is a form of alcoholism in which physical complications occur because of inadequate nutrition, but without either physical or psychological dependence on alcohol.
- *Alpha* alcoholism represents a purely psychological continual dependence-or reliance on the effect of alcohol to relieve pain and it does not lead to a loss of control, nor is it considered progressive.

Jellinek maintained that only the gamma and delta forms of alcoholism could be considered diseases.

Use of the disease concept became prevalent and was used to refer to various alcohol-related problems. Jellinek later encouraged the wider use of the disease concept in order to get hospitals and physicians involved so that alcoholics could receive some treatment (49). Through these highly successful efforts, a medically based alcoholism treatment system has evolved that incorporates a range of approaches, including those that are medically, as well as nonmedically, based.

A number of biochemical and physiological mechanisms have been offered to explain the cause of alcoholism. One theory postulates that alcoholism evolves from an inherited metabolic defect that creates a need for certain substances and that alcohol alleviates the symptoms of the deficiency (339,34 o). A second hypothesis is that alcoholism is the result of an endocrine dysfunction (123,181,293). There is no strong empirical evidence for either of these theories (178,253).

Genetic theories of the etiology of alcoholism have been proposed at a number of points (117, 119,280). Metabolic research with alcoholic populations, however, has been unable to distinguish between effects caused by genetic factors and those produced by chronic ethanol ingestion (273). Nonetheless, evidence suggests that genetic factors may be an important predisposing factor in the onset of alcoholism (166). Support for a genetic view is provided by carefully controlled family, half-sibling, adoptee, and twin studies. These studies have found that among children separated from their biological parents at birth, the presence of alcoholism in the biological parents was a much better predictor of alcoholism in the child than was the presence of alcoholism in an adoptive parent.

In one study of twins conducted in Sweden (161), both twins exhibited alcohol abuse in 54 percent of the pairs of identical (monozygotic) twins but in only 28 percent of the pairs of nonidentical (dizygotic) twins. These studies strongly suggest that a predisposition to alcoholism is inherited, but how the predisposition is transmitted remains unclear. The adoptee and half-sibling study designs cannot separate hereditary fac-

tors from the effects of the intrauterine environment.

Psychological Perspective

The psychological perspective views alcoholism as arising from motivational and emotional dysfunctions in individuals. When dysfunction is preceded by, or occurs in the absence of, problem drinking, alcoholism is considered to be a secondary diagnosis. When there are no major preexisting psychiatric problems, alcoholism is the primary diagnosis (48,277). There are actually several psychological perspectives, representing different theoretical approaches to alcoholism. These perspectives include: 1) behavioral, 2) psychodynamic, and 3) systems approaches.

Behavioral Approaches

Behavior theorists view alcoholism as a learned response. In their view, the drinking of alcohol becomes "reinforcing;" i.e., the drinking of alcohol is associated with positive, rewarding experiences, Positive reinforcers for alcohol use include tension reduction, release of inhibitions, and facilitation of social interaction. Learning particular alcohol responses can occur through classical conditioning (Pavlovian), operant conditioning (Skinnerian), or modeling processes (192). Each of these conditioning processes indicates a separate mechanism through which alcoholism develops.

A version of the behavioral approach is based on cognitive behavior theory (191) which posits that reinforcement lies "in the eye of the beholder." Cognitive behaviorists hypothesize, for example, that alcoholics drink in an attempt to decrease their levels of stress, referred to as "tension reduction" (56,65), despite the fact that physiological evidence indicates that alcohol actually increases tension (277). For example, Higgins and Marlatt found that male subjects in a laboratory experiment who expected to be evaluated drank significantly more alcohol than did low-fear control subjects (134). Berglas and Jones found that males, but not females, who were uncertain about success on a task chose a performance-inhibiting drug (designed to mimic alcohol ingestion), presumably to reduce tension about performance (27,155).

Psychodynamic Approaches

From the traditional psychoanalytic perspective, alcoholism is seen as a symptom of underlying pathology resulting from unconscious conflicts. These conflicts are assumed to be the result of early childhood experiences and an outgrowth of interactions and fantasies about relationships within the nuclear family. According to this application of psychoanalytic theory, once the conflict is recognized and the patient is helped to gain insight into the problem, dysfunctional drinking behavior will stop naturally (170,329).

Several longitudinal studies have found an association between adult drinking and early pathological family experience (159,180,193,265). Lack of control, aggressiveness, impulsivity, and disruptive family experiences (such as loss of a parent) are seen as precursors to various types of psychopathology, including alcoholism. The immature level of development that characterizes alcoholics is another emphasis of psychodynamic approaches (22,287). Many studies have failed to find specific personality traits that, prior to evidence of an alcohol problem, differentiate alcoholics from others (14,270,311). There is some evidence, however, to suggest that alcoholics, once drinking, show similar personality traits, including low stress tolerance (179), dependency, impulsivity (5o), and feelings of isolation, insecurity, and depression as well as poor self-image (146, 333,346).

Psychoanalytic theory, while historically very important and influential, is no longer theoretically dominant (227). More important today is the psychodynamic position that builds on some of the basic assumptions of original psychoanalytic theory, but has modified and adapted its components. From this perspective, all behavior, including alcoholism, is seen as being heavily shaped by early experiences, but maintained by current events.

Systems Approaches

The belief that alcoholism is sustained by a pathological environment underlies the systems theory approach to alcoholism. In this view, alcoholic behavior in an individual ***is*** seen as only the tip of an iceberg, the iceberg being a continuing

and immediate pathological interpersonal system (20,97). This system is usually the family (39), but it can also be significant other interpersonal networks in which the alcoholic participates (331). Although the systems approach is considered here a psychological perspective, in that the source of the problem is seen as the individual, the systems view shares much in common with the sociocultural perspective on alcoholism.

Sociocultural Perspective

From the sociocultural perspective, alcohol abuse is seen as the product of living in a particular social and cultural milieu (19,51,141). Drinking behaviors may be regarded as learned, but the sociocultural interpretation (unlike the behavioral theory interpretation) is that these behaviors are the result of a lifelong socialization and acculturation process. Ethnicity, age, socioeconomic class, religion, and gender are seen as important factors that shape an individual's behavior. Children are socialized in the culturally prescribed beliefs, attitudes, and behaviors toward alcohol. The variance in the occurrence of alcoholism among different groups is cited as evidence to support this theory. Consistent reports of high rates of alcoholism among the Irish, American Indians, and Swedes, compared to lower rates among Jews, Mormons, and Chinese are frequently cited (59).

Zinberg and Fraser (351) have posited five sociocultural standards or cultural variables associated with the ability to control drinking behavior: 1) cultural differentiation of group drinking from drunkenness and the association of group drinking with ritualistic or religious celebrations; 2) cultural association of drinking with food and ritualistic feasting; 3) nonsegregation of males from females in drinking situations; 4) disassociation of drinking from individual efforts to escape personal anxiety and disassociation of alcohol from medicinal value; and 5) absolute cultural disapproval of inappropriate behavior when drinking, including the disassociation of drinking from a male or female "rite of passage. " In the United States, Zinberg and Fraser suggest, all the cultural standards except those relating to drinking to alleviate anxiety have reappeared. It is possible that the general cultural emphasis on controlled drinking may account for accelerated attempts to cure and prevent alcoholism and alcohol abuse.

Integration of Perspectives

Each of the approaches to the etiology of alcoholism has received some empirical support, and it is probably most reasonable to view alcoholism as having multiple causes and a complex course of development. Multivariant models of alcoholism have recently been proposed by a number of alcoholism experts (e.g., 166,245). As already noted, Pattison and colleagues contend that alcohol dependence subsumes various syndromes defined by drinking patterns and the adverse consequences of such drinking (245). An individual's use of alcohol can be considered a point on a continuum from nonuse, through nonproblem drinking, to various degrees of deleterious drinking. The development of alcohol problems follows variable patterns over time, and, according to Pattison, abstinence bears no necessary relation to rehabilitation. Psychological dependence and physical dependence on alcohol are separate and sometimes unrelated phenomena, but continued drinking of large amounts of alcohol over an extended period of time is likely to initiate a process of physical dependence. Alcohol problems are typically interrelated with other life problems, especially when alcohol dependence is long established.

POPULATIONS: INCIDENCE AND TREATMENT

Although alcoholism is widespread among various demographic and social groups, problems with alcoholism may have different bases across groups and may manifest themselves differently. Solomon articulates the need to develop alcoholism treatments tailored to the diverse needs of subpopulations (306). Like Pattison, Solomon argues that demographic characteristics such as gender, race, ethnicity, social class, and age, as well as the life situations of alcoholics, critically influence

both treatment selection and treatment effectiveness (240,241).

Having a job, a stable income, and a reliable set of social and personal supports correlate positively with treatment outcomes (16). Men and women from lower socioeconomic classes—those most dependent on public resources, such as Medicaid and Medicare, for health services-appear to suffer more extensive drinking problems and respond less well to traditional treatment services than do middle- and upper-class adults. Being working class or poor in the United States often involves unstable employment prospects and related disruptions of stable family relationships (163,307,321). Such multiplicity of problems undermines simple or inexpensive interventions designed to reduce alcohol problems (217).

It has been consistently documented that men across all social classes receive more alcoholism services than do women. Armor and colleagues' analysis of data from the NIAAA indicated that male alcoholics in treatment tended to be unemployed, unmarried, southern, of lower socioeconomic status, and Protestant (13). Current NIAAA data (218) are not reported by region or religion. As shown in table 1, the population served by NIAAA is predominantly male (81.1 percent) and middle-aged (mean age 36). Over one-third served are racial/ethnic minorities (17.4 percent, black; 5.9 percent, Indian; 10.5 percent, Hispanic (44). Furthermore, one-third served are veterans. Only one-quarter are married—34.5 percent have never married, another 33 percent are either separated or divorced, and 3.7 percent are widowed. The mean educational level is below high school senior. In addition, 84 percent of those treated are potentially in the labor force, but half of those are unemployed. Those in alcoholism treatment programs for public inebriates, blacks, and migrant workers are the most disadvantaged economically (an average of almost 75 percent are unemployed).

Table 1.—Comparison of Alcoholics in NIAAA-Funded Treatment Programs With the General Population

Characteristic	Alcoholics in NIAAA-funded treatment programs with characteristic	Characteristic	General population with characteristic
Age:			
18 and under	5.2%	Under 18[a]	28.1%
19-35	49.4	18-34	20.7
36-64	43.3	35-64	30.9
Over 64	2.0	Over 64	11.3
Mean age	36 years	Median age	30 years
Gender:			
Female	18.9%	Female	51.4%
Male	81.1	Male	48.6
Racelethnicity:			
Black	17.4%	Black	11.7%
American Indian and Alaskan Native	5.9	American Indian and Alaskan Native	0.6
Hispanic	10.5	Hispanic	6.4[b]
White and other minorities	65.4	White and other minorities	87.7
Marital status:			
Married	25.0%	Married	65.7%
Single	34.5[c]	Single	20.1
Separated or divorced	33.0	Separated or divorced	6.2[d]
Widowed	3.7	Widowed	8.0
Education:			
Mean school years completed	10.8 years	Median school years completed	12.5 years

[a] NIAAA reporting categories and Census reporting categories are not equivalent.
[b] Persons of Spanish origin may be of any race; therefore, figures shown do not add to 100 percent
[c] NIAAA category is "never married."
[d] Census category is "divorced."

SOURCES: National Institute on Alcohol Abuse and Alcoholism, Alcohol, Drug Abuse, and Mental Health Administration, Department of Health and Human Services, *National Drug and Alcoholism Treatment Utilization Survey* (Rockville, Md.: National Institute on Alcohol Abuse and Alcoholism, June 1981); and Bureau of the Census, Department of Commerce, 7980 *Census of Population; 1980 Supplementary Reports,* Document No. PC 80-51-3 (Washington, D. C.: Department of Commerce, 1980).

Not much has been written about the reasons for the apparent different rates of prevalence among different subpopulations. Armor and colleagues (13), in trying to explain the tendency of low socioeconomic Southern Protestant males to present themselves for alcoholism treatment programs, invoked cultural values as an explanation.

Elderly People

Many surveys indicate an overall decline in alcohol use with age (cf. 12), indicating, perhaps, less need for treatment services among elderly populations. Among elderly people who drink, however, a significant number have alcohol problems (223). In 1978, 6 1/2 percent of those served in NIAAA-funded alcohol treatment centers were age 60 and over (218). Schuckit and Miller (281) report that, in recent years, approximately 10 percent of alcoholics in treatment are age 60 or older. Two percent of elderly women are problem drinkers (13). For the late-onset alcoholics (those whose alcohol-related problems began after age 40), health and marital problems appear to be closely associated factors. Stressful life situations such as loss of a spouse, lack of purposeful employment, and poverty, which are often connected with advanced age, contribute to alcohol use and abuse.

Despite the significant number of elderly people who receive treatment, many do not receive treatment for alcoholism. NIAAA hypothesized that for the elderly, reluctance of friends, relatives, and professionals to recognize drinking problems; incorrect diagnosis; inability of social agencies dealing with aging to treat alcoholism; and the orientation of treatment centers to younger clientele constitute barriers to treatment (216).

Youth and Adolescents

Surveys of alcohol use (e.g., 127) have indicated that a substantial proportion of youths drink excessively. In 1978, youths 18 and under comprised 4.5 percent, and individuals between the ages of 19 and 24 comprised 14 percent, of those served by NIAAA-funded alcoholism treatment projects (100). Donovan and Jessor (82) report that approximately 5 percent of both girls and boys in the seventh grade are problem drinkers; the proportion of problem drinkers increases steadily in each grade, until by grade 12 almost 40 percent of males and 20.6 percent of females are problem drinkers. NIAAA reports that a national survey of men aged 21 to s9 showed that the highest proportion of drinking problems are in the group aged 21 to 24.

Donovan and Jessor (82) define problem drinking for youth and adolescents as having been drunk five or more times and/or having two or more life areas in which negative consequences occurred in the past year. Although this is a liberal standard, compared to those used to identify alcoholics, it highlights the seriousness of adolescent alcohol use. Probably the most alarming consequence of adolescent and young adult drinking is its relationship to fatal driving accidents (352,353). Recently, the Secretary of Transportation called for a uniform requirement that the minimum age for those purchasing alcoholic beverages be 21 years.

The most reliable predictor of drinking among youths is the drinking behavior of their parents (257), although peers have an important influence (41,151,152). In 81 percent of families in which both parents drink, children also drink; in 72 percent of families with two abstaining parents, children do not drink (216). A number of sociocultural influences predisposes young people toward drinking. These include residence in an urban area, divorced or separated parents, a poor parent-child relationship, and high socioeconomic status (34).

According to a recent review, systematic, theory-based research on the cause of adolescent problem drinking and the circumstances under which it "matures out" is minimal (216). Much as other special populations do, youths who abuse alcohol appear to have special treatment needs. According to some experts, it needs to be recognized that because adolescent problem drinking is only part of the total syndrome of problem behaviors, alcohol-specific treatment is inadequate (216),

Women

Women comprise only 20 to 40 percent of those served in alcohol treatment facilities, but the question of whether women are less prone to alcohol-

ism or are an underserved population has not yet been answered (306).

There is evidence that women tolerate alcohol less well than men (38). They reach a higher blood-alcohol level faster and are more at risk for the development of biomedical consequences. About 16 percent of women alcoholics develop liver disease compared to 8 percent of men, and women appear to be at a higher risk of death from alcoholism than are their male counterparts. Although alcoholism typically has a later onset in women than in men, there is evidence of "telescoping" in women, whereby medical problems develop faster than in men.

One explanation for their relatively low rate of treatment is that women may be less "visible" in their need for services (e.g., the homemaker who drinks during the day), and family members and coworkers may be more reluctant to intervene with women drinkers (216). Furthermore, epidemiological surveys may be insensitive to characteristics of female alcoholics, in part because alcoholism is more of a stigma for women than for men (24). It is also possible that because women are more likely to be multiple drug abusers, their alcohol addiction is camouflaged.

The proportion of women who drink has risen from one-third prior to World War II to two-thirds at the present time (116). As to which women are more likely to become alcoholics, efforts to delineate a female alcoholic syndrome have been disappointing (cf. 153). Although there are no reliable indicators of which women will become alcoholic, a *review* by Bourne and Light (38) indicates that black women, women with alcoholic parents (especially an alcoholic father), and women who have a number of gynecological problems are particularly at risk. Johnson's recent analysis of social factors indicates that unemployed divorced women are at greatest risk of becoming alcoholic, although employed married women showed significantly higher rates of consumption and number of problems than did single, employed *women or* nonworking married women (153).

It is believed that additional attention must be paid to the needs of women alcoholics (36). This attention seems warranted, both because of increased recognition of the problem of women drinkers and, also, because women are childbearers primarily responsible for child care (cf. 116). The fetal alcohol syndrome, which encompasses a broad range of brain dysfunctions, growth deficiencies, and malformations among children born of alcoholic mothers, is believed to represent a significant health risk (85,157).

Blacks

Although blacks are overrepresented in the population seeking alcoholism treatment in NIAAA-funded programs, there is evidence that the vast majority of bIack alcoholics either do not receive any treatment at all or receive treatment less often than members of other groups. It has been hypothesized that blacks may not seek treatment because of pressures in the black community to deny that alcoholism is a problem. If it is acknowledged as a problem, there are pressures to treat it as a moral issue rather than a medical one (38). It may also be, as one study found, that black alcoholics are referred for treatment less often despite greater prevalence because higher levels of drinking are assumed to be normal (323).

Current social conditions, such as the high rate of unemployment among blacks and the low level of jobs among those who are employed, are believed to be important factors leading to the high incidence of alcoholism (38). In support of this view, Kane's analysis of black and Hispanic innercity alcoholics found that the most frequently given reason for drinking was "escape" (162). In-depth studies of such psychological factors are few. Fine and Steers found a strong correlation between alcoholism and depression, a finding of special significance because of the high incidence of depression in black males (101). One longitudinal study of 240 black males found that certain family patterns were associated with later alcoholism: broken homes, irresponsible parents, and parents with drinking problems.

The Third Special Report to the U.S. Congress on Alcohol and Health (223) argued that *more* research on blacks and alcoholism is imperative. Potential causative factors have been identified, but evidence is associative and impressionistic. Because "the characteristics that distinguish special

population groups from the dominant culture and from each other are also frequently involved in the development of alcohol use and abuse among those groups, " the report argues for research that could lead to the development of culture-specific treatment programs.

Hispanics

Despite the research showing that problem drinking is relatively widespread among the Spanish-speaking population, both here and in their native countries (187), systematic data on alcohol use and abuse among Hispanics are sparse (162, 223). Interpretation of existing data is complicated further by the number of different ethnic groups included as Hispanic and by the heterogeneity of subgroups. Most research on problem drinking among Hispanics has focused on Mexican Americans, with less research attention being given to the alcohol problems of Puerto Rican, Cuban, Central American, and South American Hispanics (223).

Problem drinking among Hispanics has been hypothesized to be a result of acculturation stress (188), the Latin idea of "machismo" (2), cultural acceptance (162), and economic deprivation (313). Machismo, in particular, contributes to denial of the alcohol problem and, thus, creates a barrier to seeking treatment (3,223). This also affects alcoholic Hispanic women, whose husbands restrict their access to such treatment. Many researchers and service providers emphasize the importance of providing culturally specialized treatment programs staffed by those who can speak Spanish and who share a cultural background with their clients (125). Others disagree, believing that treatment should stress the nature of the problem rather than cultural considerations (223).

American Indians

The prevalence of American Indians in NIAAA-funded alcoholism treatment programs is more than 10 times what would be expected on the basis of census figures. A high incidence of alcohol-related problems among Indians has been documented, including arrests for public drunkenness and crimes associated with alcohol; high death rates from cirrhosis of the liver; accidents, suicide, and homicide; and fetal alcohol syndrome (215). These findings may be a function of the attention given by the Federal Government to the American Indian population and special programs established to aid the Indians. The absence of definitive studies precludes accurate estimation of the prevalence of alcohol-related problems in American Indians. Some evidence, collected by Leland (175,176), suggests that most Indians "drink responsibly or do not drink at all" (223). Cultural explanations are contradictory, but an understanding of Indian cultures has been deemed imperative for understanding the problem (174,177).

Other Special Groups

Problem drunk drivers, public inebriates, and skid-row alcoholics are other populations that may have special characteristics and treatment needs for their alcohol problems. Drunk driving, in particular, has become one of the most serious national problems. Individuals arrested for driving while intoxicated (DWI) form a substantial alcohol abuser population. In 1980, 29 percent of all admissions to NIAAA-funded treatment programs were DWI-related (217). More punitive laws are currently being implemented in many States as a consequence of public concern about drunk driving. Various types of compulsory treatment for this group of users have been tried in many States for years, although their success is questionable.

Public inebriates and skid-row alcoholics form another special population. NIAAA's 1981 report (216) distinguishes between public inebriates, who are socioeconomically heterogeneous, likely to be working, and have a place to live, and the stereotypical, homeless, and destitute skid-row alcoholics. The latter population is more likely to require specialized treatment programs, because the individuals comprising it tend to do poorly in any kind of treatment that is effective with socially and economically stable individuals.

Individual Difference Factors

In addition to varying with respect to sociodemographic factors, alcoholics vary in patterns of drinking, treatment, and severity of psycho-

logical and medical history symptoms. Although there are few reliable indicators of the factors that lead clients into treatment, psychological factors of dependency/passivity, intellectual and emotional functioning, self-esteem, hostility, and motivation have been found to relate to successful outcomes in a variety of studies. These factors are of weaker predictive ability than are demographic factors. Somewhat paradoxically, good indicators of treatment success include having had one's first intoxication and first alcohol-related problems at a later age, having had a longer history of heavy drinking, and having had a history of AA contact prior to treatment. While a longer history of heavy drinking is a good predictor, severe symptoms at intake are not. Symptoms of a periodic rather than a daily drinking pattern, abstinence prior to treatment, and absence of delirium tremens, are particularly predictive of good outcomes (306). These drinking behavior variables may be more predictive of successful outcomes than are social and psychological factors.

A recent analysis by Solomon (304) found that patients' exposure to outpatient therapy was greater for socially stable patients and the less alcoholically impaired. The characteristics that appear to be associated with better treatment outcomes are older age, Caucasian race, social stability (in particular, a stable marriage), steady employment, higher education and income levels, and fewer arrests. What seems clear is that particular populations may have different prognoses and treatment needs.

CONCLUSIONS

The present review of the etiology of alcoholism and the effects of alcoholism on various subgroups illustrates the complexity of alcoholism as a social and health care problem. Alcoholism and alcohol abuse have multiple origins and affect diverse groups of individuals. That the phenomenon is complex, however, should not deter efforts to understand the problem and develop treatment solutions. The problems of alcoholism and alcohol abuse are too serious, in terms of their impact on the Nation, for the problem to be ignored.