



COLLEGE STUDENT ALCOHOL ABUSE

A GUIDE TO ASSESSMENT,
INTERVENTION, AND PREVENTION

edited by

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College Student Alcohol Abuse

A Guide to Assessment, Intervention,
and Prevention

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Preface

According to the U.S. Surgeon General and the U.S. Department of Health and Human Services, heavy episodic drinking among college students represents a “major national health problem” (USDHHS, 2000). A number of sources have also noted recent increases in the use of drugs like marijuana and nonmedical use of prescription medications. Misuse of alcohol and other drugs can lead to many well-documented negative outcomes, including injuries and fatalities, social and interpersonal difficulties, and problems related to academic performance. Substance misuse also results in increased violence, property destruction, sexual assaults, and other problems that affect the entire college community. Recent reports by the Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism (NIAAA, 2002, 2007) noted that widespread heavy drinking and associated consequences on campuses place colleges and universities in the challenging position of developing programs and policies that will adequately protect students from harm.

The impetus for this book was our shared recognition of the need for a comprehensive resource on how to address substance use among college students. Our primary goal was to bring together experts from across the United States to create a thought-provoking, hands-on, and user-friendly book that practitioners, administrators, and researchers will find valuable in their day-to-day work with college students. The book is useful to a variety of professions and professionals in training who work primarily with college students and young adults, including psychologists, counselors, and other mental health practitioners; physicians and nurses; those involved in higher education

administration; researchers with an interest in substance abuse or clinical interventions; and students who aspire to join one of these exciting professions.

The text is divided into two major sections. Part I, "Epidemiology, Consequences, and Risk Factors," consists of four chapters that provide a primer on substance use among college students. The initial chapters give readers a firm understanding of the prevalence of alcohol and drug use and associated negative consequences, the populations (e.g., Greek members, student athletes), and activities and events (e.g., spring break, drinking games) associated with increased risk of misuse, and the latest theories used to explain substance use among college students.

In Part II, "Assessment, Intervention, and Prevention Strategies," 10 chapters translate the latest theories and research findings related to college student substance abuse into clear and evidence-based strategies for assessing and treating college students who are abusing alcohol and other drugs. Consistent with a public health approach to college drinking prevention, the book covers a continuum of prevention and intervention modalities, ranging from campus-wide and community-based prevention programs, to brief and easily disseminated computerized and web-based interventions, to more intensive small group and individual approaches utilizing both peer and professional counselors. Each chapter provides clear suggestions about how to implement the strategies and interventions that have been shown to be most effective.

Many people contributed to making this book a reality. We would like to thank all of the authors for their excellent contributions. We would also like to thank our colleagues and students, too many to name individually, who continue to challenge and excite us with new perspectives. Finally, we thank the people of Wiley for supporting this project,

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PART I

Epidemiology, Consequences, and Risk Factors

1

Prevalence and Consequences of College Student Alcohol Use

Ralph W. Hingson and Aaron M. White

Since 1976, when the National Institute on Alcohol Abuse and Alcoholism (NIAAA) issued its first report on abusive drinking by college students, research advances have transformed our understanding of alcohol abuse and related problems among college students. Several national surveys indicate that about 80% of college students drink alcohol each year. Many first-year students come to college with an established pattern of drinking developed in high school and even middle school. Further, we now know that a broad array of factors affect college student drinking behaviors and the consequences that follow. These factors include an individual's genetic susceptibility to the positive and negative effects of alcohol, campus norms related to drinking, expectations regarding the benefits and detrimental effects of drinking, penalties for underage drinking, parental attitudes about drinking while at college, whether one is member of a Greek organization, and conditions within the larger community that determine how accessible and affordable alcohol is. Together, these influences and others contribute to a culture of drinking that, in the end, can be more damaging and deadly than previously recognized.

HEAVY DRINKING AT COLLEGE

Research suggests that a large percentage of college students who drink do so to excess. National surveys indicate that from 1999 to 2007 (Substance Abuse and Mental Health Services Administration, 2000, 2002, 2006, 2008) the percent of 18- to 24-year-old college students who drank five or more drinks on an occasion in the previous 30 days increased from 41.7% to 43.8%, a significant 5% proportional increase. Among 18- to 24-year-olds not in college, the percent increased from 36.5% to 40.7%, a significant 12% proportional increase.

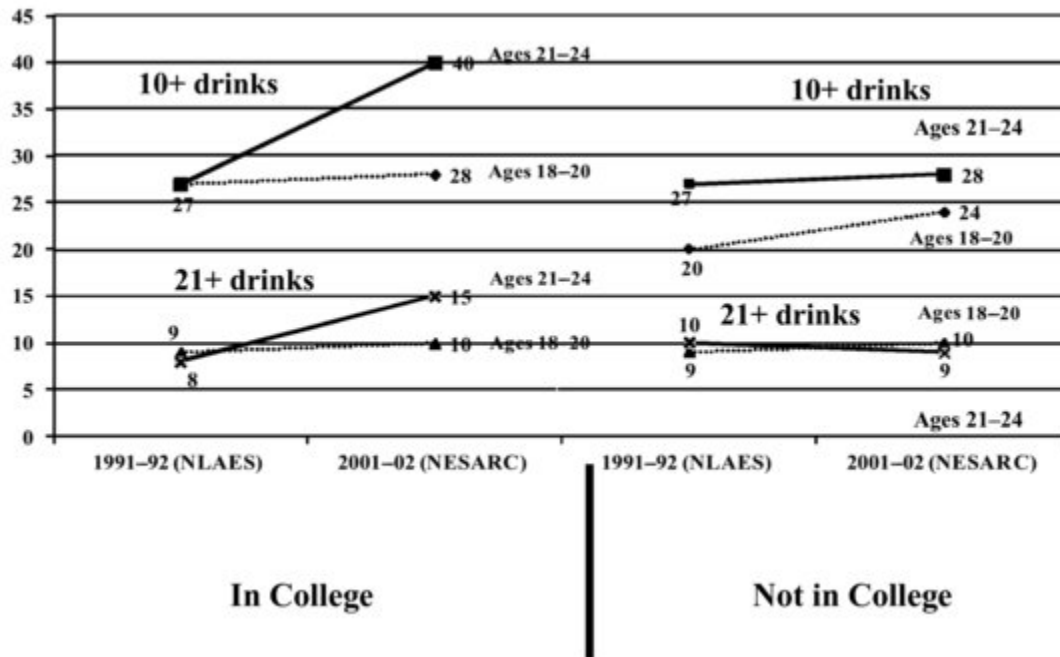
For the majority of drinkers, five drinks in a 2-hour period, often referred to as heavy episodic or binge drinking, would produce a blood alcohol concentration (BAC) at or above 0.08%, a level at which driving-related abilities are markedly impaired, decision making and impulse control are dulled, and memory starts to fail. This is the legal limit of intoxication for adults in all 50 states. The odds of a fatal car crash are elevated significantly here, as are the chances of suffering from alcohol blackouts, being sexual assaulted, physically injured, and suffering various other harms (Hingson & White, 2010).

A greater percentage of 18- to 24-year-old college students compared with noncollege respondents engage in binge drinking. However, because only 36% of 18- to 24-year-olds are in college, the number not in college who consumed five or more drinks on an occasion in 2007 exceeded the number of college students who did so by a large number (7,705,578 vs. 4,564,861). From 1999 to 2007, among 18- to 24-year-olds, the proportion of college students who drove under the influence of alcohol decreased slightly from 26.1% to 25.2%. Among those in the same age-group who are not in college, the proportion increased significantly from 19.8% to 21.0%.

Those old enough to drink legally drink more heavily and are more likely to drink and drive than students who are underage based on current law (i.e., < 21 years old). The largest increase in binge drinking occurred among 21- to 24-year-olds (43% in 1999 and 48% in 2007), not 18- to 20-year-olds (38% in 1998 and 39% in 2007), who currently are prohibited from drinking legally. Similarly, the percentages of those who drove under the influence were highest in the 21- to 24-year-old group at 30% in both 1999 and 2007. In the 18- to 20-year-old group, the percent declined from 24% to 21% during those years.

Concerns have been raised that the legal drinking age of 21 drives drinking by underage persons into unsupervised settings where very heavy drinking is apt to occur. Analyses of the National Longitudinal Alcohol Epidemiologic Study (NLAES) and National Epidemiologic Study on Alcohol and Related Conditions (NESARC) national surveys conducted 10 years apart in 1991 to 1992 and 2001 to 2002 reveal increases in consuming 10 or more drinks or 21 or more drinks, the latter being the equivalent of one fifth of distilled spirits, occurred among 21- to 24-year-olds, particularly those in college, not 18- to 20-year-olds (see [Figure 1.1](#)). Among 21- to 24-year-old college students, the percentages consuming 10 or more drinks on an occasion rose from 27% to 40%, and the percent consuming 21 or more drinks on an occasion rose from 8% to 15%.

[Figure 1.1](#) Consumption of 10+ Drinks or More or 21+ Drinks on an Occasion in Past Year by U.S. 18- to 20-year-olds and 21- to 24-year-olds, 1991-1992 versus 2001-2002



ALCOHOL-RELATED CONSEQUENCES

Drinking to intoxication leads to widespread impairments in cognitive abilities, such as decision making and impulse control, and impairments in motor skills, such as balance and hand-eye coordination, thereby increasing the risk of injuries and various other harms. Among 18- to 24-year-old college students, deaths from all alcohol-related unintentional injuries, including traffic and other unintentional injuries, increased from 1,442 in 1998 to 1,870 in 2007, corresponding to a 1% increase in rates of death among students per 100,000 from 18.5 to 18.6. Among all 18- to 24-year-olds, alcohol-related unintentional injury deaths increased from 4,809 in 1998 to 5,502 in 2007. Most of the injury deaths resulted from traffic crashes involving alcohol (1,395 among college students ages 18 to 24 and 4,103 among all individuals in that age group) in 2007. Alcohol-related traffic deaths involving college students

increased from 1,135 to 1,395 and from 3,783 to 4,103 among all 18- to 24-year-olds. Nontraffic unintentional injury deaths increased from 308 to 531 among 18- to 24-year-old college students and from 1,026 to 1,562 among all persons that age. Most of that increase resulted from increases in poisoning deaths involving alcohol, up from 62 to 262 among college students and from 207 to 770 among all 18- to 24-year-olds from 1998 to 2007.

NIAAA reports have documented that heavy-drinking college students not only place their own health at risk, they jeopardize the well-being of others. As many as 46% of the 4,553 people killed in 2007 in crashes involving 18- to 24-year-old drinking drivers were people other than the drinking driver. Further, a national survey in 2001 indicated that more than 690,000 college students that year nationwide were hit or assaulted by a drinking college student, and 97,000 students were the victim of a date rape or assault perpetrated by a drinking college student (Hingson & Zha, 2009).

Below are recent statistics summarizing alcohol-related harm involving college students:

- **Death:** More than 1,800 college students between the ages of 18 and 24 die each year from alcohol-related unintentional injuries, including motor vehicle crashes (Hingson, Heeren, Winter, & Wechsler, 2005; Hingson, Zha, & Weitzman, 2009, Hingson & White, 2010). Nearly one half of people 18 to 24 who die in crashes involving alcohol are persons other than the drinking driver.
- **Injury:** 599,000 students between the ages of 18 and 24 are unintentionally injured under the influence of alcohol (Hingson et al., 2005).
- **Physical assault:** More than 696,000 students between the ages of 18 and 24 are assaulted by another student who has been drinking (Hingson et al., 2005).

- **Sexual assault:** More than 97,000 students between the ages of 18 and 24 are victims of alcohol-related sexual assault or date rape (Hingson et al., 2005).
- **Unsafe sex:** 400,00 students between the ages of 18 and 24 had unprotected sex and more than 100,000 students between the ages of 18 and 24 report having been too intoxicated to know if they consented to having sex (Hingson, Heeren, Winter, & Wechsler, 2003).
- **Health problems/suicide attempts:** More than 150,000 students develop an alcohol-related health problem (Hingson, Heeren, Zakocs, Kopster, & Wechsler, 2002) and between 1.2% and 1.5% of students indicate that they tried to commit suicide within the past year due to drinking or drug use (Presley, Leichliter, & Meilman, 1998).
- **Drunk driving:** 2.7 million students between the ages of 18 and 24 drove under the influence of alcohol last year.
- **Memory loss:** National estimates suggest that 10% of nonbinge drinkers, 27% of occasional binge drinkers, and 54% of frequent binge drinkers reported at least one incident in the past year of blacking out, defined as having forgotten where they were or what they did while drinking (Wechsler, Lee, Kuo, & Lee, 2000; White, 2003).
- **Property damage:** More than 25% of administrators from schools with relatively low drinking levels and more than 50% from schools with high drinking levels say their campuses have a “moderate” or “major” problem with alcohol-related property damage (Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998).
- **Police involvement:** About 5% of 4-year college students are involved with the police or campus security as a result of their drinking (Wechsler et al, 2002) and an estimated 110,000 students between the ages of 18 and 24 are arrested for an alcohol-related violation such as public drunkenness or driving under the influence

(Hingson et al., 2002). A more recent national study reported 8.5% were arrested or reported other trouble with the police because of drinking (Presley & Pimentel, 2006).

- **Alcohol abuse and dependence:** 31% of college students met criteria for a diagnosis of alcohol abuse and 6% for a diagnosis of alcohol dependence in the past 12 months, according to questionnaire-based self-reports about their drinking (Knight et al., 2002).

Clearly, alcohol use by college students is viewed by some people as normative, but alcohol is associated with a variety of negative outcomes on college campuses. We explore some of these negative outcomes in detail in this chapter.

ACADEMIC PERFORMANCE

About 25% of college students report academic consequences of their drinking including missing class, falling behind in class, doing poorly on exams or papers, and receiving lower grades overall (Engs, Diebold, & Hanson, 1996; Presley, Meilman, & Cashin, 1996a; Presley, Meilman, Cashin, & Lyerla, 1996b; Wechsler et al., 2002). Although some published research studies have not found a statistically significant association between binge drinking and academic performance (Howland et al., 2010; Paschall & Freisthler, 2003; Gill, 2002; Wood, Sher, & McGowan, 2000), studies linking binge drinking to poorer academic performance outnumber the former studies 2 to 1. Presley and Pimentel (2006) report that, in a national survey of college students, those who engaged in binge drinking and drank at least three times per week were 5.9 times more likely than those who drank but never binged to perform poorly on a test or project (40.2% vs. 6.8%), 5.4 times more likely to have missed a class (64.4% vs. 11.9%), and 4.2 times more likely to have had memory loss as a result of

drinking (64.2% vs. 15.3%) (Thombs et al., 2009). Singleton (2007) and Singleton and Wolfson (2009), in separate prospective studies, both found negative associations between heavy alcohol use and grade point average. Jennison (2004), based on a national prospective study reported binge drinkers in college were more likely to drop out of college, work in less prestigious jobs, and experience alcohol dependence 10 years later. Wechsler et al. (2000) and Powell et al. (2004), based on a national survey of full-time students at four year colleges and universities, found frequent binge drinkers were six times more likely than nonbingers to miss class and 5 times more likely to fall behind in school. White, Jamieson-Drake, and Swartzwelder (2002) observed that the number of blackouts, a consequence of heavy drinking, students reported was negatively associated with GPA. Collectively, the existing research suggests that heavier drinking is associated with poorer academic success.

ALCOHOL BLACKOUTS

Heavy episodic drinking can lead to a form of memory impairment known as a blackout. Blackouts are periods of amnesia during which a person actively engages in behaviors (e.g., walking, talking) but the brain is unable to create memories for the events. Blackouts are quite different from “passing out,” which means either falling asleep from excessive drinking or literally drinking oneself unconscious. During blackouts, people are capable of participating in events ranging from the mundane, such as eating food, to the emotionally charged, such as fights and even sexual intercourse, with little or no recall (Goodwin, 1995). Like milder alcohol-induced short-term memory impairments caused by one or two drinks, blackouts are primarily “anterograde,” meaning that they involve