

1981

College students' attitudes and knowledge concerning the use of alcoholic beverages as implications for educational awareness programs

Sylvia Louise Grandgeorge

Let us know how access to this document benefits you

Copyright ©1981 Sylvia Louise Grandgeorge

Follow this and additional works at: <https://scholarworks.uni.edu/grp>

 Part of the [Education Commons](#)

College students' attitudes and knowledge concerning the use of alcoholic beverages as implications for educational awareness programs

Abstract

Drinking by college students in the United States has received increased attention from society over the past decade. Student use of alcoholic beverages is certainly not a recent happening in the colleges and universities of America, but a renewed interest in the use of alcohol among college students has been evident.

COLLEGE STUDENTS' ATTITUDES AND KNOWLEDGE CONCERNING
THE USE OF ALCOHOLIC BEVERAGES AS IMPLICATIONS
FOR EDUCATIONAL AWARENESS PROGRAMS

A Research Paper
Presented to
the Department of School Administration
and Personnel Services
University of Northern Iowa

In Partial Fulfillment
of the Requirements for the Degree
Masters of Arts in Education

by
Sylvia Louise Grandgeorge

July, 1981

This Research Paper by: Sylvia Grandgeorge

Entitled: COLLEGE STUDENTS' ATTITUDES AND KNOWLEDGE
CONCERNING THE USE OF ALCOHOLIC BEVERAGES
AS IMPLICATIONS FOR EDUCATIONAL AWARENESS
PROGRAMS

has been approved as meeting the research paper requirement for the
Degree of Master of Arts in Education.

J. F. Kimball

July 10, 1981
Date Approved

Director of Research Paper

Robert L. Frank

July 11, 1981
Date Received

Graduate Faculty Adviser

Donald L. Hanson

July 15, 1981
Date Received

Head, Department of School
Administration and Personnel
Services

TABLE OF CONTENTS

Chapter	Page
1. THE PROBLEM	1
Introduction	1
Statement of the Problem	2
Importance of the Study	4
Assumptions	5
2. REVIEW OF RELATED LITERATURE	8
3. ANALYSIS	23
Generalizations	23
4. SUMMARY	29
Recommendations	29
Conclusions	33
BIBLIOGRAPHY	36

Chapter 1

THE PROBLEM

Introduction

Drinking by college students in the United States has received increased attention from society over the past decade. Student use of alcoholic beverages is certainly not a recent happening in the colleges and universities of America, but a renewed interest in the use of alcohol among college students has been evident.

With the apparent increase in drinking and undesirable drinking-related behavior among college students, colleges have begun to examine drinking attitudes and behavior and to develop alcohol awareness programs on their campuses. The university has experienced a dramatic increase in the student use of alcohol in recent years. Students drink a variety of alcoholic beverages, seemingly for diverse reasons. Casual and social drinking is common, but perhaps more disturbing is the frequency with which young adults turn to alcohol for the expressed purpose of getting "buzzed."

When getting drunk is the primary objective, drinking often results in some type of antisocial behavior--hostility, aggression, or a general loss of usual inhibitions (DeCoster, 1976).

Many colleges and university campuses in the United States now have alcohol program activities designed to provide treatment for problem-drinking students, and some also seek to educate students about how to use alcoholic beverages in a safe manner.

While attention to college drinking practices and programs to reduce problem drinking by college students has increased, the effectiveness of campus efforts is poorly documented. A confusing array of activities has been devised and implemented, based on the different viewpoints that now exist in the field of alcohol abuse.

Despite the greater publicity in recent years given to drug use among youth, drinking among college students has long been of concern to educators and of interest to researchers.

Statement of the Problem

The drinking rate among college students is higher than that of the general adult population of the United States. No other population in the United States has a larger proportion of drinkers than the college student population (Gallup, 1977). One survey of more than 1000 students in 13 colleges and universities of varied types and locations found that seventy-eight percent of students drink at least once a year (Engs, 1977). Other large-scale samples report at least occasional drinking by ninety-five percent (Penn, 1974) and eighty-three percent (Hanson, 1977).

A trend is emerging toward equal rates of alcohol use by females and males in contrast to earlier reports of greater use by males (Hanson, 1974, 1977; Wechsler & McFadden, 1979).

Some studies of students' alcohol use have investigated students' views on why they drink or what factors influence their decisions about when, where, how often and how much they drink.

A considerable effort has been made to determine the incidence of alcohol consumption among college students. Recent evidence suggests that seventy to more than ninety-five percent of the students at some of the nation's universities presently drink to some extent, and also that the proportion of student drinkers is increasing.

It has been shown that drinking by college students has increased steadily over the last 25 years (Hanson, 1977) and that alcohol abuse is a common problem at most schools (Kraft, 1977), but until only recently there have been very few attempts at developing sophisticated alcohol education programs on campus.

It can no longer be assumed that all educational efforts are productive and worthwhile. It is not only impractical but also unethical to invest large amounts of time, energy, and public funds to support alcohol education programs that may have little impact on students' drinking behavior unless there are adequate provisions for evaluation (Rozelle, 1980).

On the other hand, if a particular methodology can be shown to be effective in increasing college students' knowledge about alcohol, promoting healthy attitudes and responsible decision-making about drinking, and most importantly, reducing the incidence of alcohol related problems, then a major stride will have been made in prevention of alcohol abuse on college campuses across the nation (Rozelle, 1980).

Ewing (1977) reported that the college student is faced with new freedom and new challenges that may place the unprepared student at a high risk for resorting to heavy drinking.

The indicators of effectiveness in alcohol awareness and education programs on college campuses will be changes in students' attitudes, knowledge, and behaviors related to drinking.

Importance of the Study

The drinking patterns of college students provide an excellent opportunity to study the role of colleges in influencing styles of leisure and consumership.

The use of alcoholic beverages is an important component of the mores and leisure habits of American classes and cultural groups. It is often thought that colleges serve important acculturating functions by socializing entrants into styles and life practiced in the social class to which they will belong or to which they aspire (Maddox, 1970).

The drinking of alcoholic beverages by college students is social behavior. It is seldom that we find the typical student drinking in isolation.

For the most part, research findings indicate that college students today are drinking more alcohol more often than their counterparts did a generation ago, and that the frequency has also increased (Wechsler, 1979).

This research on the patterns of alcoholic beverage consumption by college students is undertaken in order to address the rapidly growing societal problems resulting from the excessive use of this

chemical substance. This knowledge should guide the effective ways of providing measures for education, prevention and/or treatment.

Approaches to alcohol education would assist in modifying college students' attitudes about drinking, knowledge about alcohol, and negative consequences experienced as a result of drinking (Rozelle, 1980).

Assumptions

Alcohol is a dangerous drug. But unlike other dangerous drugs, it has been domesticated by traditions that predate history. It is intimate with our social life. The assumption underlying various programs follow the fairly standard viewpoints that currently exist toward alcohol. These viewpoints have been described in some detail (Blane, 1978). The viewpoints can be expressed in terms of the way alcoholic beverages are treated: alcohol is viewed as either a poison, an allergenic substance, a drug, or a food.

At one point in time drinking was a moral issue, in which alcohol was treated as though it were an "irresistible force" that could poison the will and the mind if used at all. The view has been labeled the vice, moral, or proscriptive model (Blane, 1978). Although this view of alcohol may seem extreme and outdated to many contemporary Americans, the view persists in more subtle forms, such as the opinion that the only reason people drink is to "escape" or to "forget problems."

Little research validates the concept of drinking as a vice. Since the viewpoint is seen as moral rather than a scientific model, research validation should probably not be expected. Certain

educational advocates continue to contend that drinking should be a moral issue, although not necessarily with abstinence as the only "right" outcome (Blane, 1978).

The disease model of alcoholism (Blane, 1978) is a widely held view. It treats alcohol as though it were an allergic substance and claims that certain people are susceptible to the substance when exposed to it. Any problem drinking or excessive drinking episodes are often treated as "prealcoholic" signs, and individuals are warned of the consequences of continuing excessive drinking. There is criticism of the disease model of alcoholism. Current evidence suggests that chronic alcohol abuse is more consistently viewed as a maladaptive or behavioral problem, with certain individuals falling into and out of alcohol problems during certain stages of life without any necessary progression (Cahalan & Cisin, 1976).

Most contemporary alcohol experts view alcohol as a drug that can be used safely by most people within certain limits. It can be used in a harmful fashion, as can any drug where overdosage is possible. Most college and university programs eagerly use the "alcohol as a drug" viewpoint. The view fits well into the educational mission of the institution without requiring that the institution seek to ban the widespread use of alcohol by students, as suggested by the two previous models (Blane, 1978).

Another view places alcohol in the category of pleasurable foods and beverages. This view is rarely discussed in the scientific alcohol literature but is prevalent in nonscientific literature such as novels, short stories, and cooking guides. In advertisements for alcoholic beverages the main focus is on the association between

drinking alcoholic beverages and enjoying oneself. Criticisms of this model plays down adverse consequences related to alcohol abuse and ignores the potential harmful effects of strong social pressures to drink in order to have fun. Most campuses have many avenues open that portray alcohol as a food or a beverage (Blane, 1978).

Chapter 2

REVIEW OF RELATED LITERATURE

A review of some of the innumerable references to college drinking indicates that alcohol is the "drug of choice" for college students today.

Since Straus and Bacon (1953) did the first large systematic survey of college drinking, there has been much controversy over the meaning of college drinking. In their survey Straus and Bacon (1953) used the responses of 15,747 college students to dispel the accepted notion that student drinking was primarily a product of the college experience. College drinking reflects the general drinking habits and patterns of the total population. Straus and Bacon reported that 80% of the males and 61% of the females considered themselves to be drinkers. Seventeen percent of the male students drank more than once a week and consumed 1.4 to 3 ounces or more of absolute alcohol.

During the 1960s several studies were reported. Kooi (1961) conducted a study at a midwestern university and by means of a questionnaire administered to undergraduate men obtained information concerning the extent and frequency of college drinking. He found a relationship between drinking problems and drinking patterns.

In another study by Grossman (1965) 87 sophomores at the University of Colorado were tested. He found that the level of drinking motivation was positively associated with the level of

psychological frustration, inability to delay gratification, feelings of personal helplessness and powerlessness, and a reported history of parental disapproval of subjects' first drinking experience.

Several of the studies on college drinking have explored the reasons why students drink. Hanson (1977) found that 25% of all the drinkers in his study drink "when things get me down," 16% drink because "it helps me forget my worries," 29% said "alcohol gives me more confidence in myself."

Jessor et al. (1968) studied 38 men and 50 women, with a mean age of 19 years, from sophomore level psychology classes at the University of Colorado who volunteered to participate in a drinking study. This study has provided evidence linking low expectations of need satisfaction to patterns of drinking behavior among college youth. The evidence supports the view that drinking may serve as an alternative to goal attainment or as a way of coping with failure to attain valued goals.

Morton (1979) studied college students' expectations of the results of drinking. Social drinkers, when drinking, are expected to feel better and to be kinder, more fun to be with and more energetic and active than they would be if they were not drinking. Mehrabian (1979) explored effects of emotional states on alcohol use by undergraduate students at the University of California, Los Angeles. For unpleasant emotional states, alcohol consumption was greatest when students felt submissive and unaroused and dominant and aroused, and consumed the least when they felt submissive and aroused or dominant and unaroused.

Kaplan (1979) in a study done at Arizona State University using a self-administered questionnaire, the Student Alcohol Questionnaire, found that the consumption of alcohol is widespread among college students. This study supports the contention that students who drink do so as a means to be sociable. Most students drank for the taste and to have fun, but 42% drank to get high or drunk (Walfish, 1980).

Adolescent drinking is considered to be primarily a social problem rather than a personal one; collegians view alcohol merely as something to be curious about and to experiment with. This view considers most adolescent drinking to be a response to difficult and painful growing experiences, and identifies alcohol as a tool to enhance the learning of socially acceptable behaviors. A study by Jessor, Carman, and Grossman (1968) supports this view that college students use alcohol to solve personal problems and to cope with academic frustration, failures, and the demands of the college environment. Jessor identifies two goals in college life--academic achievement and social affection and interpersonal liking. This study suggests that heavy drinking serves to facilitate the attainment of such goals, or provides a coping tool to ease the stress associated with failure to attain the goals. Straus (1953) identified escapism reasons for drinking on the college campus.

The literature shows several studies during the 1970s that indicate that college drinking has been increasing. Blum and Associates (1970) surveyed 1314 students at five different colleges. The findings indicated that intensive drinkers began drinking at an average of seventeen and that one-third of the non-drinkers stated

that they had planned to begin drinking. This report also points out that the liberal atmosphere within the colleges and the association of students with their peers were forces which influenced the use of alcohol by students. In a study on students and alcohol, three sub-samples of students were asked to keep a diary of their alcohol use over a period of six months. Results showed some potentials for future alcohol problems among those students who drank with high frequency to relieve psychological distress (Blum, 1970).

Orcutt and Biggs (1973) compared student non-users and regular users of marijuana and alcohol and their perception of the risks of these substances. They found that alcohol use is perceived as involving the same or greater degree of risk when compared to use of marijuana. In a study by Milman (1973) at a large Middle Atlantic university it was reported that 91 percent of students used alcohol, of whom 21% were heavy users (3 times or more a week); 23% were marijuana users, of whom four percent were heavy users. The heavy alcohol users were more likely to be men, single, heterosexually active, users of tobacco, ranking in the lower third of their high school and college class, cutting fifty percent or more of their classes. Milman also found that the heavy marijuana user rarely drank alcohol but when he did, he was more likely to use it for intoxication, whereas alcohol users who smoked marijuana did so in moderation.

Looney (1976) randomly selected two thousand students from a student population of 14,000 at California Polytechnic State University. The questionnaires returned for tabulation indicated widespread alcohol consumption. In a stratified sample of Colorado State University students, Kuder and Madson (1976) found that 85% used

alcoholic beverages. Most students felt that drinking never interfered with their academic work, and that alcoholic beverages played an important role in the social aspects of life on campus.

Extensive use of alcohol among college students was found to be closely related to reasons for drinking, drinking patterns in high school, use of other drugs and a high incidence of alcohol-related problems (Wechsler, 1981).

Studies on the drinking patterns of students at the University of Minnesota were conducted by Matros and others (1974). Some of the key findings showed that the majority of students, 56% of the men and 61% of the women, were classed as moderate drinkers; among the male participants, 24% were judged to be heavy drinkers; and ten percent were established to be potential problem drinkers; for both sexes the proportion of heavy drinkers and estimated problem drinkers did not differ from the national norm. Penn (1974) found that a large number of college students drink alcohol. Frequency of consumption is higher than might be anticipated. Consumption of alcoholic beverages is common among students of all academic schools and class levels. The data support the contention that students who drink do so to be sociable.

The issue of college student alcohol use is certainly not new to the literature. The classic studies of Straus and Bacon (1953) and Maddox (1970) documented many aspects of collegiate drinking behavior. More recently studies included in the literature further discussed the actual use patterns. Less is known about the attitudes of students themselves toward their own use of alcohol and their perceptions of drinking behaviors among fellow students.

The relationship between attitudes toward alcohol and self-estimates of drinking behavior was studied (Huebner, 1976). The self-reported drinkers believed more strongly than others that people should be permitted to drink as much as they wanted. This was an indication of "drinking independence."

Although it is uncertain whether attitudes precede behavior or visa versa, it is concluded that "attitudes toward alcoholism are strong enough to warrant attempts at attitude change in the hope of diminishing heavy drinking" (Huebner, 1976). Schaffer (1976) studied the use of alcohol and self-esteem at San Diego State University. He found the frequency of alcohol use was significant. Heavy use of alcohol was related to low self-esteem.

Attitudes toward drinking are developed prior to entering college and the majority of students approve of alcohol use (Milgram, 1977). Other findings suggest that parental example influences drinking behavior of offspring, but peer pressure also plays an important role (Fontane, 1979).

Another study undertaken by Orford, Waller, and Peto (1974), found that student drinking is largely under the control of peer-group influence. Personality is probably influential in the forming of individual differences in sociability and involvement in a variety of pleasure-seeking activities. Questionnaire responses showed college students believed their decisions about drinking were made independently of peer or environmental pressure, but light and heavy drinkers made different judgments about their peers' drinking behaviors at Daemen College, Amherst, New York (Banks, 1980). Most of the students in Blum's study (1980) underestimated the amount they would drink, suggesting that much of their drinking was impulsive.

Research indicates that signs of problem drinking are present on the college campus. For instance, Hanson in 1974 found that at the State University College, Potsdam, New York, 32% of his sample reported drinking alone, 20% reported having had a friendship strained over a disagreement about drinking behavior, 14% said drinking had caused trouble with their families.

In a research study at the University of Michigan (Schelier-Gilkey, 1979) students estimated that 10% of their male student colleagues and 5% of the female colleagues had drinking problems. In the H. E. W. Second Report to the U. S. Congress on Alcohol and Health (1974) it was estimated that one out of twenty college students are problem drinkers.

One of the major contributions to the literature on college drinking was a study conducted by Fillmore (1975). This author reported a pilot study involving a twenty-year follow-up of a sample of students who were initially studied by Straus and Bacon (1953). For the purposes of that study, problem drinking was defined as a "repetitive use of beverage alcohol causing physical, psychological, or social harm to the drinker or to others" (Fillmore, 1975). Of 109 men studied, forty-two percent were problem drinkers in college and 12% were problem drinkers twenty years later. There was a trend for problem drinkers in later life to drink more heavily than they had in college.

At the University of Iowa, a five percent random sample of the student population was surveyed concerning their use of alcohol. One-third of the student respondents reported a concern for the consequences of their drinking, and an equal proportion knew of a student friend whom they thought had a drinking problem (Strange, 1979).

Women seem to be gaining ground with their male counterparts, drinking in near equivalent frequencies and amounts (Wechsler and McFadden, 1976). On the college campus, there has been a converging of sex differences regarding drinking (Blane and Hewitt, 1978). In the 1950s, Straus and Bacon (1953) reported a 19% difference in the number of men and women classifying themselves as drinkers. Between 1966 and 1975 the gap between the sexes narrowed to 3%, with 87% of the women and 90% of the men classifying themselves as drinkers (Blane, 1978). Although there remains small differences in the drinking patterns of men and women, several studies reveal higher rates of heavy drinking among college women in the population at large (Fillmore, 1974). There is some evidence that the female college rate for problem drinking, although still a small percentage (between 5% and 6%), has risen proportionally much faster than for men (Blane, 1978).

The different rates of alcohol problems in the two sexes may be attributed to norms of sex-appropriate behavior which expect women to drink in a relatively more restrained manner (Orford, 1974). This author also stated that as many women as men may be motivated to drink for the mood-modifying effects of alcohol and have experienced these effects.

A comprehensive understanding of alcohol use requires knowledge of how it is learned, the context of its use, the amount drunk, the social meaning and function of alcohol, as well as the consequences of its use (O'Connor, 1978).

In the fall of 1975 the "University 50 plus 12 Project" was initiated by the National Institute of Alcohol Abuse and Alcoholism (NIAAA) and its National Clearing House for Alcohol Information (NACALI) to encourage colleges and universities to examine drinking attitudes and behaviors and to develop alcohol awareness programs on their campuses. As part of this project, staff and students from 62 selected universities were invited to a conference at the Notre Dame campus to discuss campus drinking problems and to share ideas about alcohol awareness and education programs. The stated aims of the Project were: 1) to gather information about drinking practices and attitudes on the campus, and about existing programs and needs in these areas; 2) to disseminate information about alcohol, alcohol use, and alcohol abuse; 3) to encourage the university community to focus on the issues of alcohol use and abuse, and to stimulate new education and communication efforts for alcohol abuse and prevention.

Despite a relatively high awareness of the general and gross effects of alcohol, on a 23-item true-false alcohol knowledge questionnaire completed by college students at Alabama A and M University gave a composite mean of 59% correct answers. This suggests significant misinformation (Buckalew, 1979). Overall, 52% responded that alcohol is a chemical poison, 19% were unaware that alcohol kills brain cells, 66% thought alcohol bad for the heart, 55% considered alcohol a stimulant, 40% did not feel that children's drinking would affect development, 21% did not consider alcohol a drug, 77% regarded alcoholism as a mental problem, 40% believed that people drink only from personal desire, 56% did not believe a desire for alcohol can be inherited, 32% classified light drinking during pregnancy as harmless,

28% were unaware of relationships between alcohol and metabolism, 45% felt that there is no way to drink a lot without getting drunk.

Some ethical implications of alcohol use on the college campus were studied by Nelson (1979). Misuse of alcohol creates social and human developmental problems. In dealing with alcohol use and abuse on campuses, student personnel administrators should consider how alcohol will be understood and used and whether they are educating students about alcohol use or contributing to alcohol abuse (Nelson, 1979).

An innovative model for a campus alcohol education program at Radford College in Radford, Virginia, makes students aware of what constitutes problem drinking through entertaining activities stressing responsible drinking (Anderson, 1979). The focus of an alcohol education program at the University of Massachusetts was based on the broad issues of responsibility and irresponsibility rather than on the narrow delineation between alcoholics and nonalcoholics (Kraft, 1976).

The Division of Student Services at Indiana University, Bloomington, Indiana, created the Alcohol Education Task Force, composed of students, faculty members, counselors, physicians, and administrators. The Task Force was charged with the responsibility to develop an alcohol awareness and education program for college students (DeCoster, 1976). The Program should contain factual materials, emphasize responsible drinking behavior, include a cognitive base which moves toward affective considerations, and be structured in such a way that it may be presented by paraprofessionals.

Alcohol abuse prevention programs need to do more than convey information if they are to be effective (Gonzalez, 1978). More than half of the students in one study were unsure of availability of alternatives to drinking on campus (Walfish, 1980).

Studies at the University of Florida have shown peer involvement to be a vital component of successful alcohol education programming (Gonzalez, 1979). In an alcohol abuse program at the University of Wisconsin, Eau Claire emphasis was on early recognition, treatment of alcoholism and responsible drinking patterns. A more aggressive counseling process was more effective (Boyum, 1978). A college counselor can help the heavily drinking student by offering him or her a self-help technique. Showing students how to identify their dissatisfactions, and teaching them effective decision-making and communication skills will help them confront issues rather than escape their problems through excessive drinking (Mascalo, 1979).

A survey of 165 selected colleges shows that professional counseling is available at 90% of the schools and 64% have alcohol education programs (Anderson, 1979).

A peer-facilitated course on alcohol abuse is used at the University of Florida at Gainesville. It is an innovative approach to prevention of alcohol abuse on the college campus (Rozelle and Gonzalez, 1979). All of the students complete the Student Drinking Questionnaire. An alcohol education course titled, "Responsible Alternatives to Alcohol Abuse," has been developed and offered as a credit course in the College of Arts and Sciences at the University of Florida. The course consists of a series of lectures presented by

experts in the field of alcohol education, and small group discussions led by students who have trained as peer facilitators (Gonzalez and Kouba, 1979).

At the University of Texas at Austin a questionnaire on background information and behavior and knowledge, regarding alcohol showed that almost one-half of the students started or increased drinking after entering the university. About 17% of the students were or had been concerned about their drinking. As a result of this study, an alcohol program emphasizing student information and training of staff for intervention with problem drinkers was established (Hill and Burgen, 1979).

The alcohol education program at Michigan State University provided an analysis of drinking behaviors of the campus population and produced a model alcohol education program for student affairs professionals. It suggests a variety of strategies for staff members and students and describes low cost resources for colleges (North, 1979).

A study on the effectiveness of workshop training in responsible use and nonuse was done at the University of Tennessee (Denson, 1978). At Memphis State University it was concluded that daily users of alcohol failed to change significantly in knowledge or attitudes regarding alcohol; however, the researcher found that desirable attitudes about alcohol were instilled in the sample population.

The purpose of the Nassau Community College Alcohol Resource Center in Garden City, New York, is to provide the college community and the general community with an opportunity to become more educated about alcohol use, and its sometime abuse. Two features of the

resource center are (a) training college students to effectively help others deal with the problems of alcohol and (b) self-help groups that meet on campus. Also, a radio series was developed to publicize interviews and presentations on alcohol topics (Pressley, 1978).

A study conducted at the State University of New York at Buffalo, during the 1976-77 academic year developed The Alcohol Instructional Model. This model for alcohol education focused upon cognitive information, affective instruction, and selected field experience. The function of the model was to help students establish the physiological and psychosocial relationships of alcohol-related behavior (Dennison, 1977).

Most college and university campuses with alcohol programs have conducted one or more surveys of student drinking practices. Although such surveys are used to demonstrate needs for programs or to test the effectiveness of interventions, they can also be used to raise awareness about alcohol-related issues and can even be used to give information, such as was done by Michigan State University (Oliaro et al., 1978). California Polytechnic State University and Indiana University have alcohol-use surveys.

Attractive posters have been used in programs to advertise events, such as a symposium (Florida Technological University, United States Department of Health, Education and Welfare, 1976). Posters are ideal for raising awareness and giving straight-forward information. Pamphlets, brochures, and booklets can give information and suggest changes that can be made. Educational pamphlets about how to drink in a responsible fashion have been developed by the University of Southern California (Kataja, 1977), the University of Texas and the University of Michigan.

A pamphlet on party planning and a "bar guide" were developed at the University of Iowa (Strange, 1979). Notebooks and manuals collecting resource materials have been developed at Ohio State University (Tootle, 1977) and the Housing Office of the University of Wisconsin at Stevens Point (Committee for Making Health Decisions, 1977). The University of Florida (Goodale and Gonzalez, 1978) and Iowa State University (Krafft and Moore, 1978) have also devised training manuals.

Many college programs involve some form of special presentation. Sometimes this is an alcohol awareness day or week. Washington University in St. Louis, Missouri (Marsh, 1978) is an example of such a program. It has successfully employed writing contests to encourage students to consider their own drinking behavior.

The University of Texas has a "Telephone Tape Program" that allows students to call 24-hours a day and listen to tapes on alcohol topics (Duncan et al., 1978). California Polytechnic State University has employed a "Health Hazard Appraisal," completed by most entering students, that includes a number of questions about drinking attitudes and behavior.

McBrien (1980) at Salisbury State College in Maryland studied the campus environment to identify conditions associated with alcohol abuse and alcohol use. A behavioral analysis was the method for identifying campus drinking styles. The education program encouraged students to value moderate drinking in order to help solve the abuse problem. The alcohol education program at Indiana University at Bloomington stresses that just because students learn factual information concerning alcohol, they do not necessarily change their drinking

behavior (Engs, 1981). Engs warns the alcohol educator to be aware of his values and biases concerning drinking, so that information may be presented in as an objective a manner as possible.

An Alcohol Fair and Awareness Week was held at North Carolina State University (Turnbull, 1981). The goal was to educate students about the socially graceful ways alcohol could be incorporated into their lives. Student involvement was the key to making the fair successful. Booths were designed for participatory activities and specific educational purposes.

In summary, the purpose of this review of the literature is to highlight the features of patterns of alcoholic beverage consumption among college students and the implications for the development of alcohol awareness programs to educate students about how to use alcoholic beverages in a safe, responsible manner through changing students' attitudes, knowledge and behavior related to drinking.

Chapter 3

ANALYSIS

Generalizations

Most college alcohol awareness programs depend heavily on educational strategies and techniques. Most programs attempt to change knowledge and attitudes or beliefs in order to change behavior. This model outlines five steps involved in behavior change: (1) becoming aware of new information; (2) becoming interested in seeking further information; (3) examining current attitudes and beliefs in light of the new information; (4) testing new beliefs and/or practices consistent with the new information; (5) adopting new beliefs and/or practices (Blane, 1978). The strength of this model lies in its indication that more is involved in changing behavior than merely providing accurate information. The use of affective education techniques is a way to help individuals not only receive new knowledge but also to examine current attitudes and beliefs and test out new attitudes and beliefs. Unfortunately, use of this model has demonstrated that knowledge and attitudes can be changed fairly readily without leading to measurable behavior changes. Educational approaches that maximize the intention to act are more likely to produce behavior changes.

In most programs, fairly standard instructional techniques are employed in order to accomplish program goals. Media and materials

provide ways to educate through written, spoken, and visual messages. Special displays, speeches, lectures, and panel presentations can reach a comparatively large number of people with a limited expenditure. Approaches involving active interchange between discussion leaders and participants are well suited to students' becoming aware, becoming interested in new information, examining current beliefs and practices, and testing out new beliefs and/or practices.

It may be that many students on campuses nationwide are engaging in heavy drinking in an effort to cope with, or avoid, their problems. Therefore, counselors need to develop their own understanding of alcoholic problems, and must sharpen their skills for identifying and treating cases of alcohol abuse.

Since much of the problem drinking among college students is related to anxiety associated with academic and social maladjustments, an effective counseling approach would be to offer the problem drinker a self-help technique to facilitate those adjustments, and thus reduce the level of anxiety. Training in anxiety management, for example, incorporates relaxation techniques and can be used in therapy to help the client to first become aware of body cues indicative of increased stress, and then reduce the anxiety through self-relaxation to a controllable level. This technique may effectively replace alcohol intake as a stress-reducer.

Counseling can help the student identify dissatisfactions, and can teach the student effective decision-making and communication skills, thus enabling the student to confront issues rather than attempt to escape them through excessive drinking. Recognizing low self-esteem, for instance, is the start of a long process to help an individual build feelings of self-worth.

Assertion training on a one-to-one basis provides an additional strategy for self-concept development, as well as for more effective means of self-expression and interpersonal communication. As suggested, the inability of college students to gain social acceptance often contributes to problem drinking. Communication skill building may facilitate social acceptance, and thus decrease the need for intoxication.

The counselor can also play a significant role in alcohol education campus-wide. College students are described as going through an age of deviance regarding drinking habits, and at the time of entrance into college, they have had little exposure to objective alcohol education (Milgram, 1977). Positive and low-key programs are needed to develop students' awareness of the risks and consequences of alcohol abuse in an effort to minimize it.

College counselors are in an excellent position, moreover, to educate the college community about alcohol-related concerns. They not only have the opportunity to identify problem drinkers in their counseling caseload, but they also have a chance to make a greater impact as alcohol educators, based upon their relationship with students and with faculty/administration. Counselors must take advantage of this unique situation and begin to educate both themselves and the college community about alcohol use and misuse.

Extensive alcohol use among college students involves more than a different drinking style. It also appears to have a pervasive influence on the lives of frequent-heavy drinkers. Not only do they drink larger quantities of alcohol than do other drinkers, but extensive alcohol users also drink in more settings, in a great variety of

social contexts and for more reasons (Wechsler, 1981). The heaviest drinkers also suffer more adverse consequences of their drinking and often exhibit signs of problem drinking.

The major factor differentiating extensive alcohol users from other drinkers, however, is their motivation for drinking. Motivation proved to be a better predictor of extensive alcohol use than measures of psychological stress, drinking patterns or possible drinking problems (Wechsler, 1981).

The importance of getting drunk as a motivating factor for the drinking behavior of extensive alcohol users suggests that their frequent intoxication is not merely an inadvertent consequence of uncontrolled or compulsive drinking. For many drinkers, intoxication is a deliberate social activity. This kind of drinking behavior might not in itself constitute problem drinking.

While students who are heavy drinkers are aware of some problems associated with their drinking, they do not view themselves as heavy drinkers in comparison to others. Most students, whether heavy drinkers or not, reject the idea of peer pressure as a cause of drinking. Many attempts to influence the behavior of young people, such as public service announcements, are based on "avoid going along with the crowd." The effectiveness of this approach is questioned, if most students do not believe they are drinking or not drinking in order to conform with or be accepted by others. Although heavy drinkers may not feel they are being influenced by others, it may be important to them to feel they are not different from others in their use of alcohol. This is inferred from their answers to "How much or how often do you drink as compared to your friend?" where heavy drinkers responded that their

consumption was similar to that of their friends (Banks, 1980). If people believe they are behaving as self-motivated individuals, perhaps it would be more effective to address them in these terms, by encouraging them to observe and evaluate their own behavior and its consequences; for example, by recording their alcohol consumption over a period of time and noting its immediate and delayed effects.

Ewing (1977) felt that we need to assist college students to adapt themselves realistically to a predominantly drinking society. The university life may heighten the habits acquired previously or may cause new drinking habits to be formed in the absence of family controls. If we are to accomplish anything of a preventive nature, we need to encourage students to drink or not to drink without peer pressure. We need to develop alternatives and to think through personal value identification and clarification processes.

There is a need for student personnel workers to address themselves to the education of students regarding the abuse of and the responsible use of alcoholic beverages. Social learning theory views the drinking of alcoholic beverages as learned behavior. Whether a person abstains, drinks in moderation or abuses alcohol, the idea that the behaviors are learned provides opportunities for implementing programs on campus which promote responsible drinking. The trend is to develop alcohol awareness programs which promote the concept that drinking is an individual choice and informed consumers can make responsible choices.

Any approach effective enough to warrant time and effort involves much more than learning how to drink. It also involves learning how to be a responsible host or hostess, learning how to

deal with a problem drinker or a friend who has drunk too much, and gaining an overall understanding of alcohol abuse.

For alcohol abuse prevention efforts to be considered effective, their effects on actual drinking behavior must be considered. Drinking behavior does not occur continuously; it cannot be changed immediately, whereas knowledge and attitudes conceivably can. For changes in drinking behavior to occur, the drinker must have ample opportunity to experience various drinking situations in which he can check his newly acquired knowledge and attitudes against his actual behavior. It takes time for newly acquired attitudes and knowledge to become internalized and applied to one's own actions.

Alcohol abuse prevention education encourages participants to make the "choices" implicit in their drinking behavior explicit: that is, this education provides participants the opportunity to decide if their present drinking habits are to be "owned" or if they should deliberately choose a different set of drinking standards. It provides the occasion for setting safe personal practices. It helps people detect questionable drinking practices before they lead to problems. It is assumed that a reflective person is more likely to choose wisely than a person who never steps back from his or her life style to evaluate his or her own behavior.

Chapter 4

SUMMARY

Recommendations

The explicit goals of a program reflect assumptions about alcohol use, the resources available, and decisions about which interventions are most useful. College and university programs may have general aims or purposes. Program efforts are frequently aimed at various organizations or agencies within the university community as well as at the university itself.

College programs have a number of different designs to reduce alcohol problems. The strategies employed often depend on the college or university's assumptions about alcohol, whether drinking is a vice, alcoholism is a disease, alcohol is a drug, or alcohol is a food or beverage. Although various programs contain approaches consistent with two or more of these assumptions, some programs are geared mainly to locate and treat problem-drinking, others are to educate all students about how to make responsible decisions about drinking and nondrinking.

Most programs seek to use combinations of education and regulation to accomplish program goals. Educational approaches rely on communication models to cause behavior change through knowledge and attitude changes. Regulatory approaches rely on either behaviorist models or practical experience that change or limit behaviors directly.

The aims of specific strategies can be employed to change the drinking behavior, to change the reaction to the drinking behavior or to insulate the drinking behavior from the potential problem situation.

General principles that aid the planning and coordination of an effective alcohol program on campus include agreement concerning the nature, scope, and focus of the activities. Most college students have already chosen to drink and are in the process of establishing drinking patterns that will stay with them through their adult lives. Alcohol education should focus on helping students make responsible decisions about their own drinking behavior.

The involvement of key administrators is essential. The use of a central coordinator or small group of knowledgeable persons who are able to work effectively with staff, students, and administrators simplifies the time consuming activities of the educational program. Representation of both health service and nonhealth agencies as well as students insures a well-rounded approach.

Periodic surveys of students and gathering the data from campus police, university health services, residence halls, and campus drinking establishments serves as an on-going assessment of past and present efforts including both treatment and prevention.

It is usually better to use existing programs whenever possible rather than creating new ones, providing the program is compatible with university or college goals. In initiating new programs or changes in existing ones, short-term tasks help establish credibility before continuing with long-term complex projects.

Flexibility of plans and programs are a necessary part to respond to ever-changing needs and experiences. Consideration should be given to experiential activities because learning-by-doing can be more stimulating and meaningful. This is particularly true when the focus is on an individual and personal exploration of responsibility toward alcohol. Students should be given opportunities to practice desirable alcohol related behaviors and to discover what responsible drinking really means for them.

Student involvement is essential for the ultimate success of a program aimed at reaching students. Efforts should be made to identify students who are interested in the prevention of alcohol abuse and involve them in the planning and implementation of alcohol education activities.

Evaluation of effect should be a principal component of any prevention effort. Many times what "ought" to be effective or what appears to be effective may not be effective at all. Evaluation should be attempted on both an immediate and a follow-up basis. Without follow-up evaluation, observed effects which are immediate but short-lived would give a false picture of effectiveness. Likewise, a delayed effect, which may often be the case in behavior change, may go unnoticed, leading to the abandonment of a worthwhile program.

Mistakes to avoid in the management of alcohol awareness programs include over-dramatizing or underselling the findings. Another is recommending activities when the facilities are unavailable. Habits and attitudes of faculty and staff members toward alcohol must not be neglected. Perhaps the most serious omission is bypassing student participation in assessment, planning, implementation and evaluation.

Educational programming concerning responsible drinking and drinking choices, needs to include some particular factors. The content area of alcohol education in the college or university would include objective factual information concerning both positive and negative effects of alcohol on physical, mental, and social health. Information needs to be given concerning the religious, medicinal, cultural, and personal reasons why individuals do and do not consume alcoholic beverages.

Methods for using and serving alcoholic beverages in a responsible manner and ideas for responsible alternatives to drinking should be given, as well as, the rights of the non-drinker.

The courses outline should also deal with problem-solving skills, to cope with life by means other than alcohol and the clarification of values concerning one's present or future drinking or non-drinking behavior.

Materials developed at the University of Florida have been created on the basis of research and an attempt to promote a specific set of behaviors which are promoted in the alcohol education literature as responsible alcohol-related behavior. The following is a short description of some of the major materials developed.

Responsibility and Alcohol This provides information concerning alcohol use by college students and encourages students to make responsible decisions about alcohol use or non-use.

Drinking Fraternity Style This addresses the issues of drinking within the Greek systems' social fraternities and provides suggestions for making alcohol use in this setting more responsible.

Student Alcohol Information Survey This is a survey instrument used for the original needs assessment study performed at the University of Florida. It is an instrument to identify subpopulations of drinkers and drinking habits of students.

Student Drinking Questionnaire This is a validated research scale (Gonzalez, 1978) which measures students' attitudes, knowledge and behaviors related to alcohol use. This was partially developed on the basis of items in a questionnaire used by Ruth Engs at Indiana University. It is an evaluation tool to assess program impact. However, it can be used for other research purposes.

Other materials, such as values clarification exercises, evaluation forms, checklists and posters have also been developed at Florida.

Alcohol awareness activities, alcohol education courses and workshops, counseling and training functions, and research and evaluation are important factors in program implementation.

Conclusions

Of a variety of college policies concerning alcohol use, the most common is a nonpolicy, by which drinking is overlooked unless serious other attendant problems develop. Campuses where alcohol use is officially forbidden, for example Iowa Central Community College at Fort Dodge, Iowa, often resemble the nonpolicy campuses.

States where minimum age laws are twenty-one are forced into this nonpolicy approach, and drinking takes place off-campus or in the students' room. Another policy permits drinking in private rooms, but not in the public parts of the residence halls. This is the case at the University of Northern Iowa in Cedar Falls, Iowa. This policy

overlooks the fact that nonproblem drinking usually takes place in a social, relaxed atmosphere rather than in solitary situations.

Recently, some campuses have established college pubs where alcohol is served as an adjunct to other activities rather than as an end in itself. Although this approach is realistic and enlightened, it is not totally free of problems.

To deal with alcohol use on campus, student personnel administrators should develop a positive sense of community on campus. They should plan alcohol education programs directed to the entire campus community and grounded in a realistic understanding of attitudes toward alcohol use. They might also prohibit events for which the principal attraction is the availability of alcohol.

In order for student personnel workers to provide assistance to students with alcohol-abuse problems, a written policy statement from the college or university administration is needed.

College health professionals can help students to understand that alcohol is a drug with well-known toxic qualities and that the obvious behavioral warnings of impending alcoholism should be heeded. Appropriate literature and qualified persons should be available to counsel students at every student health center.

Educators might do well to focus on increasing the assertiveness of alcohol abusers so that they can free themselves from social conformity situations which sometimes lead to alcohol abuse.

Campuses should create opportunities for students to explore their alcohol use patterns, and values and attitudes associated with its use, so that they can better decide about how to drink. Student personnel workers, counselors, and administrators who assume responsi-

bility for alcohol abuse prevention programming need to develop campus resources in cooperation with relevant community groups.

In summary, colleges and universities need to establish policies and programs of alcohol education awareness, giving needed factual information to students to create an awareness of the implications of campus drinking. Campuses need to sensitize their students in a positive manner to the idea that alcohol abuse is a legitimate and recognized concern to which the campus is willing to respond.

BIBLIOGRAPHY

- Anderson, D. S. and Gadaletto, A. F. "That Happy Feeling: An Innovative Model for a Campus Alcohol Education Program." Southern Area Alcohol Education and Training Program, Inc., 1979.
- Banks, E. and Smith, M. R. "Attitudes and Background Factors Related to Alcohol Use Among College Students." Psychological Reports, 46:571-77, April, 1980.
- Blane, H. T. and Chafetz, M. E. Youth, Alcohol, and Social Policy. New York: Plenum Press, 1978.
- Beckman, L. J. "Beliefs about the Causes of Alcohol-Related Problems Among Alcoholic and Nonalcoholic Women." Journal of Clinical Psychology, 35:663-70, July, 1979.
- Biber, S. H., Hashway, R. N., and Annick, J. F. "Drinking Patterns of Male and Female Collegians: Are the Patterns Converging?" Journal of College Student Personnel, 21:349-53, July, 1980.
- Blum, R. H. and Associates. Society and Drugs. San Francisco: Jossey-Bass Inc. Publishers, 1970.
- Blum, R. H. and Associates. Students and Drugs. San Francisco: Jossey-Bass Inc. Publishers, 1970.
- Blum, Steven and Associates. "The Effect of Contracted Abstinence of College Students' Behavior Toward Alcohol Use." Journal of Alcohol and Drug Education, 25:70-79, Spring, 1980.
- Bowkler, L. H. "Motives for Drug Use: An Application of Cohen's Typology." International Journal of Addictions, 12:983-91, 1977.
- Boyum, R. "A University Alcohol Abuse Program." Journal of College Student Personnel, 19:183-84, March, 1978.
- Buckalew, L. W. "Alcohol: A Description and Comparison of Recent Scientific vs Public Knowledge." Journal of Clinical Psychology, 35:459-63, 1979.
- Cross, Wilber. Kids and Booze. New York: E. P. Dutton, 1979.
- Dauphin, N. V. "The Student Personnel Worker's Role in Providing Intervention Services to College Students Abusing Alcohol." MSU Orient, 11:8-15, Fall/Winter, 1975-76.
- DeCoster, D., Engs, R., Larson, R., and McPherson, P. "Alcohol Awareness for College Students." Journal of College Student Personnel, 438-39, September, 1976.
- DeFoe, J. R. and Breed, W. "The Problem of Alcohol Advertisement in College Newspapers." Journal of the American College Health Association, 27:195-99, February, 1979.

- Dennison, D. and Associates. "Does Alcohol Instruction Affect Student Drinking Behavior." Health Education, 28-30, November/December, 1977.
- Donovan, B. "The Brown Group on Alcohol Development of an On-Campus Education/Prevention/Treatment Forum." Journal of Alcohol and Drug Education, 24:56-65, September, 1979.
- Duncan, J. P., Hill, F. E., and Iscoe, I. "An Interagency Alcoholism Prevention Program, the University of Texas at Austin." In T. Goodale and K. Hewitt (Coordinators). A Monograph on Alcohol Education and Alcohol Abuse Prevention Programs at Selected American Colleges. Gainesville, Florida: Office for Student Services, University of Florida, 1978.
- Engs, R. C. "Drinking Patterns and Drinking Problems of College Students." Journal of Studies on Alcohol, 38:2144-56, November, 1977.
- Engs, R. C. "The Drinking Behavior of College Students and Cognitive Effects of a Voluntary Alcohol Education Program." NASPA Journal, 15:56-64, Winter, 1978.
- Engs, R. C. "Responsibility and Alcohol." Health Education, 20-22, January/February, 1981.
- Ewing, J. A. "A Biopsychosocial Look at Drinking and Alcoholism." Journal of the American College Health Association, 25:204-08, February, 1977.
- Fillmore, K. M. "Relationships Between Specific Drinking Problems in Early Adulthood and Middle Age." Quarterly Journal of Studies on Alcohol, 35:882-907, 1974.
- Fillmore, K. M. "Drinking and Problem Drinking in Early Adulthood and Middle Age: An Exploratory 20 Year Follow-Up Study." Quarterly Journal of Studies on Alcohol, 36:814-40, 1975.
- Fontane, P. E. and Layne, N. R., Jr. "The Family as a Context for Developing Youthful Drinking Patterns." Journal of Alcohol and Drug Education, 24:19-29, Spring, 1979.
- Gonzalez, G. M. "The Effect of a Model Alcohol Education Module on College Students' Attitudes, Knowledge and Behavior Related to Alcohol Use." Journal of Alcohol and Drug Education, 25:1-12, Spring, 1980.
- Gonzalez, G. M. "What Do You Mean--Prevention?" Journal of Alcohol and Drug Education, 23:14-23, Spring, 1978.
- Gonzalez, G. M. and Kouba, J. "Comprehensive Alcohol Education: A New Approach to an Old Problem." NASPA Journal, 16:7-14, Spring, 1979.

- Goodale, T. and Gonzalez, G. "Alcohol Abuse Prevention Program, University of Florida." In T. Goodale and K. Hewitt (Coordinators). A Monograph on Alcohol Education and Alcohol Abuse Prevention Programs at Selected American Colleges. Gainesville, Florida: Office for Student Services, University of Florida, 1978.
- Grossman, P. H. "Drinking Motivation: A Cluster Analytic Study of Three Samples." Unpublished doctoral dissertation, University of Colorado, Boulder, Colorado, 1965.
- Hanson, D. J. "Alcohol Consumption College Students 1970-1975." College Student Journal, 11(#1):9-10, 1977.
- Hanson, David. "College Students' Reasons for Drinking: Twenty Year Trends." College Student Journal, 9:256-57, September/October, 1975.
- Hanson, David. "Drinking Attitudes and Behaviors among College Students." Journal of Alcohol and Drug Education, 19:6-14, Spring, 1974.
- Hashway, R. M. "Preliminary Results of a Longitudinal Study of Collegiate Alcohol Abuse." Journal of the American College Health Association, 23:362-63, June, 1980.
- Hill, R. E. and Burgen, L. A. "A Survey of Drinking Behavior Among College Students." Journal of College Student Personnel, 20:236-43, May, 1979.
- Hinrichs, D. W. and Haskell, K. "Drinking Behavior at a Small Liberal Arts College." Journal of College Student Personnel, 19:557-62, November, 1978.
- Huebner, R. B., Slaughter, R. E., Goldman, R. D., and Caddy, G. R. "Attitudes toward Alcohol as Predictors of Self-Estimated Alcohol Consumption in College Students." International Journal of Addiction, 11:377-88, 1976.
- Ingra, A. and Moos, R. H. "Alcohol Use Among College Students: Some Competing Hypotheses." Journal of Youth and Adolescence, 8:393-405, December, 1979.
- Jessor, J., Carman, R., and Grossman, P. "Expectations of Needs Satisfaction and Drinking Patterns of College Students." Quarterly Journal of Studies on Alcohol, 29:101-16, 1968.
- Kaplan, M. S. "Patterns of Alcoholic Beverage Use Among College Students." Journal of Alcohol and Drug Education, 24:24-60, Winter, 1979.
- Kataja, E. "USC Student Guide to Responsible Drinking." Pamphlet produced by the Student Health and Counseling Services, University of Southern California, 1977.

- Katz, Joseph and Associates. No Time for Youth. San Francisco: Jossey-Bass, Inc., 1968.
- Kooi, R. C. V. "An Analysis of Drinking Practices and Problems among Undergraduates at a Midwestern University." Unpublished Master's Thesis, Western Michigan University, 1961.
- Krafft, J. and Moore, J. "Alcohol Education Programming at Iowa State University." In T. Goodale and K. Hewitt (Coordinators). A Monograph on Alcohol Education and Alcohol Abuse Prevention Programs at Selected American Colleges. Gainesville, Florida: Office for Student Services, University of Florida, 1978.
- Kraft, D. P. "College Students and Alcohol: The University 50 Plus 12 Project." Alcohol Health and Research World, 10-14, Summer, 1977.
- Kuder, J. M. and Madson, D. L. "College Student Use of Alcoholic Beverages." Journal of College Student Personnel, 17:143-44, March, 1976.
- Looney, Michael. "Alcohol Use Survey on Campus: Implications for Health Education." Journal of American College Health Association, 25:109-12, December, 1976.
- McBrien, R. J. "Facilitating Moderate Drinking on Campus." NASPA Journal, 18:23-28, Fall, 1980.
- McClelland, D., Davis, W., Kalin, R., Wanner, E. The Drinking Man. New York: Free Press, 1972.
- Maddox, G. L. The Domesticated Drug; Drinking Among Collegians. New Haven: College and University Press, 1970.
- Mascalò, Alison. "The Role of the College Counselor in Alcohol Abuse Counseling and Education." Journal of Alcohol and Drug Education, 24:52-55, Spring, 1979.
- Mascalò, Alison. "Increasing Alcohol Awareness: A Drinking Demonstration." Journal of College Student Personnel, 20:454-55, September, 1979.
- Matros, S., Brown, J. and Seaburg, D. Drinking Practices of Students at the University of Minnesota. Educational Resources Information Center, ERIC Report No. 984553, 1974.
- Mehrabian, A. "Effects of Emotional State on Alcohol Consumption." Psychological Reports, 44:271-82, 1979.
- Mehrabian A. and Russell, J. A. "A Questionnaire Measure of Habitual Alcohol Use." Psychological Reports, 43:803-09, 1978.

- Milgram, G. G. "Implications of College Policy on Campus Drinking Practices." Paper read at American College Health Association, Philadelphia, April, 1977. College Student Personnel Abstracts, 13:405, 1978.
- Milman, D. H. "Patterns of Drug Usage among University Students vs Heavy Use of Marijuana and Alcohol by Undergraduates." Journal of the American College Health Association, 21:181-87, 1973.
- Moos, R. H. "Part One: University Student Living Groups." Evaluating Educational Environments, Jossey-Bass, Inc., 22-135, 1979.
- Moos, R. H., Moos, B. S., and Kulik, J. A. "College-Student Abstainers, Moderate Drinkers, and Heavy Drinkers: A Comparative Analysis." Journal of Youth and Adolescence, 5:349-60, December, 1976.
- Moos, R. H., Moos, B. S., and Kulik, J. A. "Behavioral and Self-Concept Antecedents and Correlates of College-Student Drinking Patterns." International Journal of Addictions, 12:603-15, June, 1977.
- Morton, Isaacs. "College Students' Expectations of the Results of Drinking." Journal of Studies on Alcohol, 40:476-79, 1979.
- Nelson, Stephen. "Alcohol Use on the College Campus: Some Ethical Implications." NASPA Journal, 16:2-6, Spring, 1979.
- Newton, John P. "Alcohol Beverage Buying Habits of University of Delaware Students." Journal of College Student Personnel, 19:316-20, July, 1978.
- North, G. B. "Alcohol Education for College Student Personnel." NASPA Journal, 16:24-30, Fall, 1979.
- O'Connor, Joyce. The Young Drinkers. Cambridge, University Printing House, 1978.
- Oliaro, P., Heckler, D., and Olson, B. "The Michigan State University Alcohol Education Project for Resident Students." In T. Goodale and K. Hewitt (Coordinators). A Monograph on Alcohol Education and Alcohol Abuse Prevention Programs at Selected American Colleges. Gainesville, Florida: Office for Student Services, University of Florida, 1978.
- Orcutt, J. D. and Biggs, D. A. "Perceived Risks of Marijuana and Alcohol Use: Comparison of Non-users and Regular Users." Journal of Drug Issues, 3:355-60, 1973.
- Orford, J., Waller, S., and Peto, J. "Drinking Behavior and Attitudes and Their Correlates among University Students." Quarterly Journal of Alcohol, 35:1316-74, 1974.

- Orcutt, J. D. "Normative Definitions of Intoxicated States: A Test of Several Sociological Theories." Social Problems, 25:384-96, 1978.
- Parker, F. B. "Sex-Role Adjustment and Drinking Disposition of Women College Students." Journal of Studies on Alcohol, 36:1570-73, November, 1975.
- Penn, J. R. "College Student Life-Style and Frequency of Alcohol Usage." Journal of the American College Health Association, 22:220-22, 1974.
- Pittman, D. J. and Snyder, C. R. Society, Culture, and Drinking Patterns. San Francisco, Jossey-Bass, Inc., 1962.
- Roesenbluth, J., Nathan, P. E., and Lawson, D. M. "Environmental Influences on Drinking by College Students in a College Pub: Behavioral Observation in the Natural Environment." Addictive Behaviors, 3(#2):117-21, 1978.
- Rozelle, George. "Experiential and Cognitive Small Group Approaches to Alcohol Education for College Students." Journal of Alcohol and Drug Education, 26:40-53, 1980.
- Rozelle, G. and Gonzalez, G. "A Peer-Facilitated Course on Alcohol Abuse: An Innovative Approach to Prevention of the College Campus." Journal of Alcohol and Drug Education, 25:20-30, Fall, 1979.
- Schaffer, G. M., Schuckit, M. A. and Morrissey, E. R. "Correlation between Two Measures of Self-Esteem and Drug Use in a College Sample." Psychology Reports, 39:915-19, December, 1976.
- Schelier-Gilkey, Geraldine, Gomberg, E. S., and Clay, M. "College Students and Alcohol: An Explanation of Observations and Opinions." Journal of Alcohol and Drug Education, 24:30-41, Spring, 1979.
- Strange, C. C. and Schmidt, M. R. "College Students Perceptions of Alcohol Use and Differential Drinking Behavior." Journal of College Student Personnel, 20:73-79, January, 1979.
- Straus, Robert and Bacon, Selden. Drinking in College. New Haven: Yale University Press, 1953.
- Strickler, D. P., Dobbs, S. D. and Maxwell, W. A. "The Influence of Setting on Drinking Behaviors: The Laboratory vs the Barroom." Addiction Behavior, 4:339-44, 1979.
- Tootle, B. J. "Booze Nooze: Alcohol Education Program Plans and Intervention Strategies for College Fraternities." Compiled by the Office of Greek Affairs, Ohio State University, 1977.

- Turnbull, M. M. "A Fair Way to Start Alcohol Awareness Programming." Journal of College Student Personnel, 284-85, May, 1981.
- United States Department of Health, Education and Welfare. Second Special Report to the U. S. Congress on Alcohol and Health, 1974, Pub. #74-124, MIU, Washington, D.C.: Government Printing Office.
- United States Department of Health, Education and Welfare. The Whole College Catalog about Drinking: A Guide to Alcohol Abuse Prevention. Washington, D.C.: U. S. Government Printing Office, 1976.
- Walfish, Steven. "Alcohol Abuse on a College Campus: A Needs Assessment." Paper read at Southeastern Psychological Association, Washington, D.C., March, 1980.
- Waring, M. L. "The Effects of Alcoholism Training on the Knowledge, Attitudes, and Drinking Behavior of College Students in the Human Services." International Journal of Addictions, 13:849-54, 1978.
- Wechsler, H. "Extensive Use of Alcohol among College Students." Journal of Studies on Alcohol, 42(#1):149-55, 1981.
- Wechsler, H. and McFadden, M. "Drinking among College Students in New England." Journal of Studies on Alcohol, 40(#11):969-96, 1979.