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AUTHOR Sieber, Robert G.; Austin, Gregory
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ABSTRACT

This document is the third in a series of annual guides to the literature on alcohol, tobacco, and other drug use among American youth and its prevention. It is designed to assist readers in finding the latest information about this social problem and the most effective strategies for eliminating it. This bibliography consists of an indexed collection of 253 references, with abstracts, to literature on alcohol, tobacco, and other drug use among school-aged youth in the United States, and what can be done to prevent or reduce use. It indexes literature identified and received between June 1992 and June 1993. The main focus is on research--specifically, epidemiological surveys, investigations of risk factors, and prevention and intervention program evaluations. General discussions, literature reviews, and program descriptions have been included if they were deemed relevant to understanding the nature of the problem and to developing programs to address it. The scope of the review is national; because of the scarcity of strong longitudinal studies, one Canadian longitudinal study in a large sample population has been included. The bibliography suggests that increasing attention is being paid to the assessment of alcohol and other drug use and the evaluation of prevention among subpopulations, including ethnic and racial minority groups. Documents are listed alphabetically by author. Indexes include a topic index with entries for subjects, specific drugs, and specific populations covered; and a separate document type index. (NB)

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Western Regional Center DRUG-FREE SCHOOLS AND COMMUNITIES

ED 366 854

PREVENTION BIBLIOGRAPHY 1992 - 1993

An Annotated Guide to Information on Alcohol, Tobacco, and Other Drug Use Among Youth

September 1993

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Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204



**Far West Laboratory for Educational
Research and Development**
730 Harrison Street
San Francisco, California 94107-1242



**The Southwest Regional
Educational Laboratory**
4665 Lampson Avenue
Los Alamitos, California 90720

Western Regional Center for Drug-Free Schools and Communities

Judith A. Johnson, Director

Northwest Regional Educational Laboratory

101 S.W. Main Street, Suite 500

Portland, OR 97204

(503) 275-9500

Field Office

1164 Bishop Street, Suite 1409

Honolulu, Hawaii 96813

(808) 532-1904

Far West Laboratory for Educational Research & Development

730 Harrison Street

San Francisco, CA 94107

(415) 565-3000

Southwest Regional Laboratory

4665 Lampson Avenue

Los Alamitos, CA 90720

(310) 598-7661

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**PREVENTION BIBLIOGRAPHY
1992-1993**

**An Annotated Guide to Information on Alcohol,
Tobacco, and Other Drug Use Among Youth**

**Robert G. Sieber
Gregory Austin**
Southwest Regional Laboratory

**Western Regional Center for Drug-Free Schools and Communities
August 1993**

DIRECTOR'S NOTE

This is the third in a series of annual guides to the literature on alcohol, tobacco, and other drug use among American youth and its prevention. It is designed to assist in finding the latest information about this pressing social problem and the most effective strategies for eliminating it, as part of the ongoing efforts of the Western Regional Center to promote "knowledge transfer" of research findings to prevention practitioners and the public. The literature on alcohol, tobacco, and other drug abuse is extensive and has been rapidly expanding. Furthermore, because alcohol, tobacco, and other drug research touches upon so many aspects of life and involves so many different interests and research disciplines, information about it is published in a wide variety of scholarly and popular journals. This situation makes it extremely difficult for people other than professional researchers (and even for many researchers) to keep abreast of the latest developments in the field, a problem aggravated by the communication gap between prevention practitioners researchers. This annual review will help alleviate these information problems by helping all concerned stay abreast of new developments in etiological research, program evaluations, and promising prevention and intervention strategies.

Several people's assistance and cooperation made this guide possible. Special gratitude is due to Kelly Andersen and Nicole Vanderhorst at the Southwest Regional Laboratory, Kathy Laws of the Western Regional Center at Northwest Regional Educational Laboratory, and Gail Weinberg at the Drug Information Center.

Judith A. Johnson, Director

Western Regional Center for Drug-Free Schools and Communities

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INTRODUCTION

This bibliography consists of an indexed collection of 253 references, with abstracts, to literature on alcohol, tobacco, and other drug use among school-age youth in the United States, and what can be done to prevent or reduce use. It indexes literature identified and received by the author between June 1992 and June 1993. The main focus is on research—specifically, epidemiological surveys, investigations of risk factors, and prevention and intervention program evaluations. General discussions, literature reviews, and program descriptions have been included if they were deemed relevant to understanding the nature of the problem and to developing programs to address it. The scope of this review is national, but emphasis has been given to research dealing with the Western Regional Center's service area. Because of the scarcity of strong longitudinal studies, one Canadian longitudinal study in a large sample population has been included.

Much new literature this year remains critical of research being done in the field and of trends in prevention programs. It is, however, evident that research and knowledge on promising strategies and approaches is expanding. As has been true with previous years' Prevention Bibliographies, documents summarized here support previous conclusions that the new generation of more comprehensive psychosocial approaches are more effective than the older, single-strategy approaches (e.g., didactic, affective, alternative). However, it is also evident that much remains to be done and that important questions remain.

The current bibliography also suggests that increasing attention is being paid to the assessment of alcohol and other drug use and the evaluation of prevention among subpopulations, including ethnic and racial minority groups. While many studies continue to be performed in so-called "normal" or "general" samples of suburban White middle-class youth, the current Prevention Bibliography includes many more studies in ethnic minority population samples than had been found in previous years.

The bibliography lists documents, with their abstracts, alphabetically by author (with references according to APA style). The indices follow: a topic index with entries for subjects, specific drugs, and specific populations covered, and a separate document type index (Survey, Longitudinal survey, Discussion, Program evaluation, etc.). Index terms which designate population types (e.g., high school students, dropouts, Native Americans), and geographic areas (state names and some regional terms) refer to research or other literature which specifically discusses those populations. The topic index was developed using a revised version of the

Prevention Bibliography, 1992-1993

thesaurus originally created for *Substance Abuse Index and Abstracts*.¹ Both indices list document numbers rather than page numbers.

Author abstracts tend to be limited to a summary of the findings saying little about implications for practice or further research. While this guide draws on existing author abstracts, these abstracts were revised and expanded to better inform our readers, especially in regard to implications for further prevention research and practice. Many new abstracts were written specifically for this annotated bibliography.

In developing this guide, an extensive literature search was conducted through the major computerized databases which contain drug literature, particularly ETOH, produced by the National Institute on Alcohol Abuse and Alcoholism, and DRUGINFO, produced by the University of Minnesota's Drug Information Center. The ERIC database was also extremely valuable. The body of research identified in this manner was expanded by manual searches through books, publishers' lists, and printed current awareness bibliographies—this was very important given the time-lag in updating the databases. This bibliography also benefitted from an arrangement with the Drug Information Center, by which they provided the author copies of relevant new articles as they received them for database entry. The sources available through the National Clearinghouse for Drug and Alcohol Information were particularly valuable. The bibliography was compiled and indexed through an in-house bibliographic database at the Southwest Regional Laboratory.

*Southwest Regional Laboratory
Los Alamitos, California*

¹Austin, Gregory, Executive Editor. *Substance Abuse Index and Abstracts. Alcohol, Drug, and Tobacco Research, 1986-1987*. New York: Scientific DataLink, 1989. 5 vols.

BIBLIOGRAPHY

- 1 Aboud, M. J. (Ed.). (1992, September). *Prevention abstracts: Current research on prevention issues*. Louisville, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Selected research on adolescent alcohol and other drug research is abstracted in detail.

- 2 Aboud, M. J., Buford, B., Gossman, B., Morris, L., & White, N. (Eds.). (1992, March). *Prevention abstracts: Current research on prevention issues*. Louisville, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Selected research on adolescent alcohol and other drug research is abstracted in detail.

- 3 Adams, C. L. (1992). *Substance use of Massachusetts high school student athletes*. Ed.D. dissertation. Boston University, Boston, MA). *Dissertation Abstracts International* 53(4): 2080-B.

The use of drugs and alcohol is prevalent in our society. One population that has received much attention in recent years is athletes. The social and ergogenic use of chemicals by athletic superstars has been well documented in the media. Formal investigations which provide understanding of this phenomenon are scarce. This study sought to examine the substance use behaviors of high school student-athletes in Massachusetts with both quantitative and qualitative data. In the quantitative study, 1,365 male and female students from nine high schools geographically distributed throughout the state of Massachusetts completed a modified version of the Student-Athlete Questionnaire. The sample comprised of students from 9th to 12th grade who participated in at least one of 10 specified sports in the high school. The qualitative study utilized interviews of 18 student-athletes, a male and a female from each of the nine high schools. Juniors were randomly selected from a pool of respondents interested in the interview component of the project. Major findings indicated: (a) Decreases in the use of alcohol, marijuana/hashish, cocaine/crack, psychedelics, and cigarettes from 1987 to 1991; (b) The use of smokeless tobacco increased from 1987 to 1991 from 8% to 13%; (c) A higher percentage of females were using alcohol and smoking cigarettes than males; (d) Anabolic steroid and anti-inflammatory drug use increased from 1987 to 1991; (e) Drug and alcohol experimentation predominantly occurred before high school; (f) Peer influence was cited for the initiation of use; (g) The majority of students reporting use of anabolic steroids cited the source as a "coach"; (h) Students were familiar with drug and alcohol education in their schools, however, their specific substance knowledge was limited; (i) Student-athletes supported mandatory/random drug testing and would like to see stricter enforcement of violations. Implications of the results for theory, research and practice are discussed.

- 4 Archambault, D. (1992). *Adolescence: A physiological, cultural, and psychological no man's land*. In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent Substance Abuse: Etiology, Treatment, and Prevention* (pp. 223-245). Gaithersburg, MD: Aspen Publishers.

A model of adolescent drug abuse is discussed. It is noted that no single reason for drug use by adolescents can be described. Rather, drug use results from a complex interaction of genetics, behavior patterns, motives, and social and psychological determinants. Heredity and the learning that takes place in the environment created by alcoholic parents, along with sociological and psychological factors, may account for much of the risk children of alcoholics experience. In treatment of youth, it should be recognized that some behaviors may go away without treatment. It is therefore essential to treat both the individual and the behavior. A holistic approach to treatment addressing general deviance as well as attempting to instill a sense of personal adequacy and accomplishment is needed. It is suggested that because family issues are so interwoven in all areas of our lives that family therapy might be the most appropriate therapy modality. Prevention strategies must work to break the link between substance use and

mood changes, unpleasant feelings and feeling better. Efforts must be made to make adolescents feel better through improved family dynamics and personal achievement.

- 5 **Bachman, J. G., & Schulenberg, J. (1993). How part-time work intensity relates to drug use, problem behavior, time use, and satisfaction among high school seniors: Are these consequences or merely correlates? *Developmental Psychology*, 29(2), 220-235.**

Data from the Monitoring the Future Project, with nationally representative samples of high school seniors, totaling over 70,000 respondents, from the classes of 1985-1989, examined the relation between work intensity (hours worked per week) and indicators of psychosocial functioning and adjustment. Consistent with previous research, bivariate correlations were positive between work intensity and problem behaviors; these associations were diminished (but not eliminated) once background and educational success indicators were controlled, thus suggesting that selection factors contribute to the correlations. A strong linear association was found between hours of work per week and half-pack per day smoking: at each increment of hours worked, there was a corresponding increment in percentage of half-pack smokers. Those without jobs had lower than average prevalence of smoking, although those working 5 hours or less had lower smoking prevalence than those not working at all. Both current alcohol use and heavy alcohol use (5 or more drinks at least once in the past two weeks) was also positively related to number of hours worked, but the lowest alcohol prevalence was for those without jobs. Marijuana and cocaine use in the previous month were also positively related to hours worked, although the relation was less linear and not as strong as for alcohol and cigarettes. Educationally successful students at each level of work intensity had lower prevalence of use of each of these four substances. Significant gender differences were also found: although females' prevalence rates were generally lower than males'—except that for cigarettes—the shape of the curves varied. Work intensity appeared to reduce the likelihood of getting sufficient sleep, eating breakfast, exercising and having a satisfactory amount of leisure time. Conceptual and policy implications are discussed, including the possibility that long hours of part-time work may be both a symptom and a facilitator of psychosocial difficulties.

- 6 **Bailey, S. L. (1992). Adolescents' multisubstance use patterns: The role of heavy alcohol and cigarette use. *American Journal of Public Health*, 82(9), 1220-1224.**

Knowledge about the roles that heavy alcohol and cigarette use play in patterns of concurrent substance use among adolescents is lacking despite studies showing that adolescent substance users are typically multisubstance users and that alcohol and cigarettes are commonly used heavily by those who use illicit substances. The roles of increasing use and heavy first-time use of alcohol and cigarettes in multisubstance use patterns were examined in a cohort of 4,192 secondary students who were surveyed three times over a 4-year period. When subsequent use patterns were compared for students who increased their levels of alcohol or cigarette use and those who initiated use for the first time but at heavy frequencies, analyses indicated that the former group was more likely to initiate the subsequent use of other substances and to maintain and increase use already initiated. These results suggest that adolescents are likely to have been involved in a history of licit substance use characterized by increasing levels of use before progressing to and maintaining the use of other substances. Increasing frequencies of alcohol and cigarette use, therefore, may be markers for more serious patterns of substance use.

- 7 **Bailey, S. L., Flewelling, R. L., & Rachal, J. V. (1992). The characterization of inconsistencies in self-reports of alcohol and marijuana use in a longitudinal study of adolescents. *Journal of Studies on Alcohol*, 53, 636-647.**

The reliability of self-reported measures remains an important issue for research on adolescent alcohol and drug use. This study explores the consistency of self-reports of frequency of use and age of first use of alcohol and marijuana in a sample of 5,770 secondary school students in a southeastern U.S. county. Two waves of data were collected between 1985 and 1988 using state-of-the-art data collection procedures and self-administered instruments. Consistency of reports was examined by comparing reports at T1 and T2, approximately 1 year apart. Results showed that when consistent nonusers were dropped from the analysis, consistency rates of lifetime frequency of use dropped from 82.7% to 74.7% for alcohol and from 95.6% to 83.2% for marijuana. Reports were more consistent for lifetime marijuana use than for alcohol use, but these results must be interpreted with caution given differences in the measures for the two substances. Reliability for reported age of first use was very low for both substances.

When consistent nonusers were dropped from the analysis, only 27.8% of respondents made consistent estimates of their age at first alcohol use and 34.4% for their age at first marijuana use.

- 8 Barnes, G. M., & Farrell, M. P. (1992). **Parental support and control as predictors of adolescent drinking, delinquency, and related problem behaviors.** *Journal of Marriage and the Family*, 54, 763-776.

Among a representative general population sample of 699 adolescents and their families the effects were examined of parenting practices, particularly support and control, on the development of adolescent drinking delinquency, and other problem behaviors. Black families were oversampled ($n = 211$) to permit meaningful analyses. The findings confirmed that parental support and monitoring were important predictors of adolescent outcomes even after taking into account critical demographic/family factors, including socioeconomic indicators, age, gender, and race of the adolescent, family structure, and family history of alcohol abuse. In addition, peer orientation remained a significant predictor of drinking behavior and deviance and interacted with aspects of parenting. Methodological issues associated with sampling, family respondent, and measurement of support and control are critiqued as they pertain to parental socialization and adolescent outcome research. The present study gives strong evidence that high parental support and high parental monitoring are key socialization factors in the prevention of adolescent alcohol abuse and more generalized deviance. After controlling for socioeconomic status, age, gender, race, family history of alcohol abuse, and family structure, parental support and monitoring remain highly significant factors in predicting adolescent problem outcomes. However, after controlling for race, family structure does not predict regular drinking or deviance. Thus, being in a single-parent versus a traditional two-parent family may not be as critical a factor for adolescent outcomes as are parenting practices per se, particularly support and monitoring. Future studies should not only assess family structure, but should also take into account measures of parenting practices. From these findings, it is clear that the peer group remains an important agent of socialization during the period of adolescence even after the effects of parenting have been taken into account. Peer influences interact with family influences in their relationships to the development of adolescent drinking, deviance, and related behaviors. Where parent-child interaction is problematic, adolescents are likely to withdraw from the family and rely more heavily on influence of peer subcultures.

- 9 Bauman, K. E., Foshee, V. A., & Haley, N. J. (1992). **The interaction of sociological and biological factors in adolescent cigarette smoking.** *Addictive Behaviors*, 17, 459-467.

The interaction of social and biological factors is considered in the context of adolescent cigarette smoking. Parent and peer smoking were measured as sociological variables and testosterone as a biological indicator. The subjects are 221 males and females 12-14 years of age from 10 SMSAs around the U.S. Mother and daughter smoking were found to be associated but mother and son smoking were not. Mother smoking interacted with testosterone for daughter smoking, but father smoking did not. No significant interaction between parent smoking and testosterone for males. Stronger relationships between friend and subject smoking were found for males with higher testosterone than for those with lower testosterone, and stronger relationships between testosterone levels and smoking were found among males whose friends smoked than among those whose friends did not. Friend smoking and testosterone was not found to interact among females. The findings support the interaction model, suggesting that both sociological and biological factors are necessary for understanding adolescent smoking.

- 10 Beauvais, F. (1992). **Indian adolescent drug and alcohol use: Recent patterns and consequences.** *American Indian and Alaska Native Mental Health Research*, 5(1), 1-78.

Trends in overall drug use among Indian and non-Indian youth have followed similar patterns, increasing from 1975 to the early 1980s and, for the most-used drugs, declining since then. At every point in time more reservation Indian youth have been involved with drugs than are non-Native American youth. Rates for cocaine and hallucinogen use by Native American youth increase until 1990. The decline in overall drug use occurred because a considerable number of moderate users have shifted to nonuse. The proportion of high-risk users had not decreased; since 1980, it stayed between 17% and 20%. Societal changes and prevention programs are reaching casual drug users but not those susceptible to heavy drug involvement. Overall drug use by Indian and non-Indian youth increased from 1975 to the early 1980s, then declined. Indian youth were consistently more involved with drugs than were non-Indians.

Longitudinal data suggested a recent decline in drug use resulting from moderate users shifting to nonuse, but not heavy users.

Using the 1988-90 American Drug and Alcohol Survey data from grades 8 and 12, rates of drug use (lifetime and 30-day prevalence) and involvement were compared for three groups: Indian youth living on reservations, Indian youth living off reservations and Anglo youth. The highest use rates of marijuana, cocaine, crack, stimulants, inhalants, hallucinogens, and other drugs, alcohol use, and smoking were found among reservation Indians. A consistent pattern emerged, showing the lowest rates of use among Anglo youth, higher rates among non-reservation Indian youth, and the highest rates among Indian youth on reservations. Rates of tobacco use, both smoked and smokeless, and marijuana use were especially high for Indian youth. Indian youth also showed a pattern of earlier initiation to drug use. Gender comparisons revealed slightly higher rates of use for males, although the differences were not great enough to suggest that prevention efforts for males should have higher priority.

The survey results also revealed that high-risk behaviors and serious consequences (including arrests, accidents, and interpersonal problems) related to drug and alcohol use were most frequent among reservation Indian youth and least frequent among non-Indians, with nonreservation Indian youth intermediate. Indian youth had higher rates of using alcohol and drugs in ways that increase their risk—getting very drunk, drinking while driving, and using drugs and alcohol together. Frequencies of self-reported consequences from alcohol and drug use followed the same order as use rates, with 15% of reservation seniors involved in an alcohol-related accident. The most frequent consequences involved relationship problems, both with parents and with peers. Drug injection was rare in all groups.

Another part of the survey examined perceived availability of alcohol, marijuana, inhalants, and other drugs; beliefs about whether occasional or regular use of alcohol or various drugs would cause harm; and intentions for future drug use. Alcohol, marijuana, and inhalants were reported as easiest drugs to obtain, but all drugs were reported available by some students. Younger students tended to indicate that inhalants were easier to get than marijuana. Availability did not exhibit a major effect on use: as the literature shows, generally, where there was motivation to use drugs, youth will find a way to get them. NonIndian youth showed higher rates of perceived harm, congruent with their lower rates of drug use.

Survey results also indicated that American Indian and nonIndian adolescents' drug and alcohol use was most likely to occur at weekend parties, at night with friends, and while driving around. Heavy drug users were more likely to have friends who used drugs and encouraged drug use. Not much drug use was found at school, but, still, reservation youth were most likely, non-reservation Indian youth next most likely, and non-Indian youth least likely to have used drugs at school. Reservation youth were twice as likely as the others to have used alcohol while driving and 3 times more likely to have used drugs while driving. Drugs were generally used with friends. Heavy drug users were more likely to have friends who used drugs and friends who encouraged drug use and were less likely to have friends who would try to stop them from using drugs.

Previous theories about heavy alcohol and drug use among American Indians include cultural elements, genetic weakness, acculturation stress, self-medication, and peer-oriented psychosocial theories. Path models are presented linking drug use of Indian and non-Indian adolescents to socialization characteristics: family strength and attitudes, religious identification, school adjustment, and peer drug associations (the most important factor). Risk factors for Native American youth include: low family-caring, early first intoxication, poor school adjustment, weak family sanctions against drugs, positive attitudes toward alcohol use, risk of school dropout, father not at home, and poor religious identification. The overall high rates of drug use found among Indian youth may be accounted for in part by lack of educational and employment opportunity and other endemic problems of Indian reservations. To reduce the demand for drugs among Native American adolescents, 2 factors must be addressed: (a) community characteristics that create a high-use environment; and (b) personal and social characteristics that increase individual risk.

An annotated bibliography describes 36 articles on drug and alcohol use of Native American youth that have been published by staff of the Tri-Ethnic Center for Prevention Research since 1978, noting high rates of use, particularly of inhalants. The listed articles are available in reprints from the Center.

- 11 Beauvais, F., & Segal, B. (1992). **Drug use patterns among American Indian and Alaskan Native Youth: Special rural populations.** *Drugs & Society*, 7, 77-94.

American Indian and Alaskan Native communities illustrate the great diversity found among the rural populations of the United States. These communities are marked by cultural, socioeconomic, and historical patterns that differ from other rural groups and that lead to a distinctive set of social problems. When compared to a national sample of youth, American Indian and Alaskan Native youths show exceptionally high levels of drug use. Because they share a number of similar cultural characteristics, it could be hypothesized that the rates of drug use among these Native groups are related to cultural traits. However, non-Native Alaskan youth also have high rates of drug use, indicating that there are factors in the social environment other than culture that account for this behavior. Possible explanatory factors include uncertain economic conditions, family instability, and lack of access to cultural values.

Although rural living in itself is not necessarily a contributing factor to drug use, it does place some constraints on intervention efforts. Geographic isolation and lack of adequate health and social service resources make it difficult to develop adequate prevention and treatment services.

The data for the present comparison of Alaskan students consisted of an evaluation of 3,814 completed questionnaires obtained from students (50% male) in grades 7-12 from nine school districts around the state of Alaska. Sampling consisted of either a random stratified sample of the larger school districts (Anchorage, Fairbanks, Juneau) or in the case of smaller school districts, a survey of the entire student body in grades 7-12 present on a given day (Barrow, Bethel, Cordove, Kotzebue, Nome, Seward). Both Native and non-Native students in these districts were surveyed. The data for the American Indian sample are taken from an ongoing research project conducted by the Tri-Ethnic Center for Prevention Research at Colorado State University, primarily from self-report surveys given to youth in school. Prevalence data are available on reservation-residing Indian youth since 1975. The biennial sample size was about 2,000, comprising a representative sample of reservation youth from across the United States. The 1988-89 data from the Tri-Ethnic Center project were used to compare rates of drug use between American Indians and Alaskan Natives. As a point of reference, the drug use rates of the samples just described were compared with the results of the National Household Survey, 1988. Comparisons were made on "lifetime prevalence"—the percentage of youth indicating that they had ever tried, even once, the listed drugs. Clearly this measure does not give an indication of the number of youth who were using drugs on a continuing basis, but it is the most stable and the most readily available comparison of drug-using behavior between populations. At a minimum, it revealed the number of youth who have been exposed to the various drugs and gives some indication of the relative availability of drugs.

The rates of use for the national sample were dramatically lower than for the two Alaskan groups and the American Indian group. The differences were large enough to indicate significant dissimilarities in the social environments of these groups of youth. A particularly striking disparity was noted for marijuana use: about one-fifth of the national sample had used marijuana; the rates for Alaskan non-Natives, Alaskan Natives, and American Indians were three to four times higher. The Alaskan Native youth had used smokeless tobacco, cigarettes, and marijuana to a much greater extent than did the non-Native youth. Conversely, non-Native youth tended to use cocaine, stimulants, depressants, hallucinogens and tranquilizers to a slightly higher extent than did Alaskan Natives. The patterns of experience with the different substances for Alaskan Native and non-Native youth suggested that non-Native youth were more likely to use drugs that tend to induce a strong sense of euphoria, such as cocaine, stimulants and hallucinatory drugs. Native youth were more likely to use tobacco products and marijuana, which produce less intense—if any—euphoria. In part, these differences may be a function of availability, as Native youth were more likely to live in remote villages where many of the stronger drugs are more difficult to obtain. A large proportion of both Alaskan Natives and American Indians had tried smokeless tobacco, cigarettes, marijuana, and alcohol. Inhalants and stimulants showed the next highest rates of use, and use of tranquilizers, hallucinogens, heroin, and depressants were reported least frequently. A higher proportion of Alaskan Native youth had tried smokeless tobacco, cocaine, and marijuana whereas proportionately more American Indian youth had tried alcohol, stimulants, depressants, heroin, and tranquilizers. Availability may be a factor for the higher use of some of these drugs by American Indians.

The lifetime prevalence rates for American Indian and Alaskan Native males and females show that there were no major gender differences for these two Native groups, reflecting the same pattern as found within other populations. There was a slight tendency for females in both groups to use cigarettes at higher rates and for males to use more smokeless tobacco. The outstanding feature of these data was that the two Native groups (Alaskan Native and American Indian) and the non-Native Alaskans had remarkably higher drug use rates than did the national sample. This difference was found for nearly every drug. Some differences in use rates were found among these three high-use populations, but they were not as remarkable as the overall high rates. Two subpatterns might be of interest: the moderately higher rates of use of tobacco products and marijuana for Alaskan Natives and American Indians, and their concomitant lower rates of use for more psychoactively potent drugs when compared to non-Native Alaskans. The most important finding from the gender comparisons was that males and females among both Native groups had very similar rates of use. Any differences that were found were not large enough to lead to the conclusion that either gender was more at risk or that either should be more heavily targeted for intervention. There was, however, a great deal of evidence to support the conclusion that a psychosocial model is more adequate for describing drug use among American Indians than are cultural explanations alone. To be sure, culture is an integral part of such a model, but it is only one of a number of explanatory factors. The often extremely harsh socioeconomic conditions in Indian communities have been associated with a variety of social problems, including substance abuse, and a host of health-related problems. Families that are beset by serious economic conditions, poor health, and inadequate health care are under a great deal of stress and cannot provide the caring and nurturance that young people need. When conditions are bad enough and are prolonged across generations, even a strong culture cannot provide the strength that it

traditionally did within the community. Youth become unlinked from both cultural and family support and drift into various forms of deviance, including substance abuse.

While American Indian and Alaskan Native youth represent rural populations that are at high risk for drug abuse, the present data suggest that the vulnerability of these youth is not necessarily related to rurality. Rather, their higher rates of drug use may be more related to unstable social environments—including poverty, mobility of families and the lack of access to stable cultural roots and extreme isolation. These conditions make it difficult to communicate social values that counter the use of drugs and other deviant behaviors. Culture does not play a direct role in the development of substance abuse problems; there is nothing inherent in Native American or Alaskan Native culture that would lead to the use of drugs. When it comes to treatment and prevention, however, there must be a sensitivity to the culture of those to whom these efforts are being directed. Unfortunately, there has not been sufficient work on developing a theoretical framework for the incorporation of cultural elements into programs designed for minority populations. The problem of drinking and drug-taking behavior among minority youth, such as American Indian and Alaskan natives, cannot be addressed without a more concerted effort to understand how culture interacts with prevention and treatment interventions.

- 12 Beauvais, F., & Trimble, J. E. (1992). **The role of the researcher in evaluating American Indian alcohol and other drug abuse prevention programs.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 173-201). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

This chapter defines the role and responsibilities of researchers who are asked to evaluate alcohol and other drug (AOD) programs in American Indian communities and settings. Building on the framework provided in the previous chapter, it identifies the various conceptual, methodological, and procedural problems that evaluators may encounter in settings that are culturally different from their own. Topics such as gaining access, measurement equivalence, report writing, and dissemination of results are given specific attention. The chapter also highlights those factors that can assist in "bridging the gap" between those responsible for designing an evaluation protocol and those charged with designing and implementing prevention programs, and concludes that evaluation planning must be integrated into the planning of AOD programs in Indian communities.

- 13 Becker, H. K., Agopian, M. W., & Yeh, S. (1992). **Impact evaluation of Drug Abuse Resistance Education (DARE).** *Journal of Drug Education*, 22(4), 283-291.

The impact of Drug Abuse Resistance Education (DARE) was studied among approximately 3,000 students, nearly the entire 5th grade of the Long Beach Unified School District in California. About half of the 5th-grade classes received the DARE program, and those who would not receive DARE until the following semester served as a control group. Approximately 3,000 students participated in the study. A pretest and posttest self-report survey was utilized during the Fall 1989 semester for experimental and control groups. The research suggests that DARE does not significantly change the amount of drug use, which is minimal at the 5th-grade level. In general, children receiving DARE during the study period maintained existing levels of drug abuse. The DARE program increased experimental students' views that they could resist solicitations from friends to use drugs. Both experimental and control-group students reported school-based programs as their major source of information regarding drugs and alcohol.

Substance use of any type was generally rare among 5th-grade students. Only 1 in 10 students reported any use of cigarettes. Beer consumption by students at pretest was nearly identical to experimental and control groups of those students reporting use one or two times per month. The DARE experimental group maintained beer consumption levels, while the control group showed an increase in beer drinking. Wine use among experimental group students, one to two times per month, increased for both groups from pretest to post-test. The control group had the larger increase in wine usage. DARE participants maintained an extremely high level of abstinence from any use of hard liquors, with 94% at pretest and 93% at post-test reporting abstinence. Control-group students reported an increase in the use of hard liquor. Less than 1 in 10 5th-grade students used any form of inhalants. During the study, 97% of both experimental and control-group students reported abstinence from marijuana use. There was no difference between experimental and control students regarding marijuana use. The use of angel dust or non-prescriptive pills was extremely rare for experimental and control groups; 97% and 98% reported abstinence, respectively. Both experimental and control groups reported 99% abstinence from cocaine use. Peer pressure to use drugs is rare among 5th-grade students. Only one in nine students in the experimental and control groups reported ever being asked to

use drugs or alcohol during the study period. Students in both groups reported nearly identical frequency of requests to use drugs or alcohol, 13% for experimental students and 14% for control students. As DARE programs gain popularity in other school districts, school administrators need more information on the program to decide if DARE should be presented in their schools. Administrative decision-making must consider program effectiveness and curriculum time constraints.

- 14 Belfer, M. L. (1993). **Substance abuse with psychiatric illness in children and adolescents: definitions and terminology.** *American Journal of Orthopsychiatry*, 63(1), 70-79.

Substance abuse with psychiatric illness is commonly referred to as comorbidity, a term that lacks the specificity needed to further precision in research and clinical treatment, both of which are particularly important when dealing with children and adolescents. A review of the literature on this dual disorder in young people is followed by a discussion of diagnostic and treatment considerations and their implications for researchers and clinical practitioners. Alcohol and drug abuse in children and adolescents with psychiatric illness is discussed. Section headings in this review of the literature include: (a) problems of definition; (b) etiology of comorbidity; (c) problems of diagnosis; (d) diagnostic procedures required.

- 15 Benard, B. (1992). *Mentoring programs for urban youth: Handle with care.* Portland, OR: Western Regional Center for Drug-free Schools and Communities.

The popularity of mentoring and its increasing employment in programs concerned with addressing the needs of youth at risk for educational failure, teen pregnancy, delinquency, and substance abuse requires that preventionists take a closer look at the literature and research on this intervention.

- 16 Berenson, A. B., San Miguel, V. V., & Wilkinson, G. S. (1992). **Violence and its relationship to substance use in adolescent pregnancy.** *Journal of Adolescent Health*, 13, 470-474.

Pregnant adolescents 17 years old and younger ($N = 342$) were interviewed for history of physical or sexual assault and of substance use in order to investigate whether victims of childhood violence are at increased risk of smoking and using alcohol or drugs. The sample represented 95% of new patients who attended the university's teen pregnancy clinic between May 8, 1989, and December 8, 1990. Substance use was reported seven times more often in those with a history of combined physical and sexual assault, five times more frequently by those who had been sexually assaulted, and three times more often in those who had been physically assaulted than adolescents without a history of assault. Violence was associated with substance use in all ethnic groups although this relationship was modified by ethnicity. Among Hispanics, an association was observed between physical assault and tobacco use. Sexual and combined physical and sexual assault were strongly associated with use of alcohol among Blacks. All categories of violence were associated with drug use among all ethnic groups. When use of each substance was analyzed by the adolescent's relationship to the perpetrator, drug use was most strongly associated with assault by a mate, whereas tobacco or alcohol use was more often associated with assault by a member of the victim's family of origin.

- 17 Berger, C. S., Gendler, B., Corcoran, J., Sorensen, L., & Fitzsimmons, J. (1992). **Issues of retention in working with high-risk youth.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 113-120). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

A program that provided skills training and followup services for pregnant teenagers identified barriers and solutions to reaching these youth. The major focus was on retaining postpartum teenagers in the program. Lack of resources, lack of clear priorities, lack of support, and health problems were seen as major barriers. Case management, program flexibility, and the provision of resources were strategies successfully used to retain program participants.

- 18 **Berliner, B. (1993). *Adolescence, school transitions, and prevention: A research-based primer*. Portland, OR: Western Regional Center for Drug-free Schools and Communities.**

The prevention literature that focuses on protective factors and the current notion that life transitions may be overlooked as opportunities to help adolescents thrive provide a basis for reviewing research of interest to education and prevention professionals. It is urged that school transitions be recognized as important life events to promote the development of preventive interventions during these periods. There are few school transition programs that tap the best available knowledge about coping with multiple life events and fostering the development of healthy coping strategies. Drawing from prevention theory, school transition research, and promising programs and practices, teachers and other preventionists can learn a lot about transitions, stress, and coping.

- 19 **Bertrand, L. D., & Abernathy, T. J. (1993). *Predicting cigarette smoking among adolescents using cross-sectional and longitudinal approaches*. *Journal of School Health*, 63(2), 98-103.**

Data was collected over a three-year period from a sample beginning with all 6th-grade students in public and Catholic schools in the Canadian city of Calgary, Alberta. The sample was followed through grade 9. Data was matched across all four testings were achieved for 3,567 subjects. Attempts were made to predict adolescents' smoking behavior using both cross-sectional and longitudinal analyses, and predictor variables reflecting both interpersonal and intrapersonal domains were included. Results indicated the highest rates of accurate classification into smoking categories were achieved with cross-sectional analyses. In addition, interpersonal variables emerged as most important in all analyses. The ability to identify groups of children at risk of initiating a smoking habit may prove useful in developing effective smoking prevention programs.

- 20 **Botvin, G. J., & Botvin, E. M. (1992). *Adolescent tobacco, alcohol, and drug abuse: Prevention strategies, empirical findings, and assessment issues*. *Journal of Developmental and Behavioral Pediatrics*, 13(4), 290-301.**

Existing literature suggests that substance abuse is the result of the complex interaction of a number of etiologic determinants. Knowledge concerning the dangers of substance use appears to play a much less prominent role than was previously believed. Considerably more important are the social influences that promote substance use and the psychological factors that help determine susceptibility to these influences. Both the social influence model and the broader generic skills training (competence enhancement) models have demonstrated significant reductions in substance use (typically cigarette smoking). Only limited evidence exists concerning the extent to which these prevention strategies are effective for affecting substance use other than cigarette smoking, and this comes primarily from the studies testing personal and social skills training approaches. Results from several studies have also indicated that these prevention strategies can produce changes on hypothesized mediating variables, providing at least preliminary evidence for the construct validity of these prevention models. Despite the very promising results obtained with both approaches, enthusiasm should be tempered by a recognition of the limitations of these studies. First, a major limitation is that virtually all of these studies have been conducted with school populations. The effectiveness of these approaches has not been tested with school dropouts or other out-of-school populations who appear to be at greatest risk of becoming substance abusers. Second, although methodological shortcomings have been identified and gradually have been overcome as the field of prevention has matured, caution must be exercised in interpreting the findings of any one study. Consideration of the body of research with these newer prevention strategies does, however, provide the most promising evidence to date of the efficacy and viability of preventive approaches to the problem of substance abuse. Attention should be given to determining the effectiveness of such prevention approaches with high-risk populations, e.g., school drop-outs and ethnic/racial minority populations. In addition, future research should attempt to determine the effectiveness of various types of program providers, the optimal age for intervention, the extent to which school and teacher differences affect program delivery, the potential efficacy of family intervention components, the impact on other forms of substance use, the relative importance of specific program components, and the extent to which reductions in substance use during early adolescence result in subsequent reductions of substance abuse later.

- 21 Botvin, G. J., & Dusenbury, L. (1992). **Substance abuse prevention: Implications for reducing risk of HIV infection. Special Series: AIDS and HIV prevention. *Psychology of Addictive Behaviors*, 6(2), 70-80.**

Attempt is made to formulate an acquired immunodeficiency syndrome (AIDS) risk-reduction strategy for use with adolescents. This strategy is based on the state of the art in substance abuse prevention and adolescent pregnancy prevention. The etiology of risk behaviors is discussed, and the history and success of substance abuse prevention and adolescent pregnancy prevention are briefly reviewed. A promising approach is the competence enhancement approach, which appears to be generalizable to a variety of problem behaviors. A potential model for AIDS risk reduction is discussed. Although information is important, and increasing knowledge concerning AIDS and AIDS risk was a reasonable initial goal of AIDS education and prevention efforts, the results of prevention evaluation studies in the areas of drug abuse and adolescent sexual behavior suggest that it may now be necessary to reorient prevention efforts toward the use of more comprehensive models emphasizing the development of a broad array of personal and social skills. The best available prevention models are those that have been developed to prevent tobacco, alcohol, and drug abuse. These models are grounded in theory, address the multiple causes of substance abuse, and have a decade of careful evaluation research supporting their efficacy. Similar approaches have been found to be effective for preventing teenage pregnancy, although fewer studies exist in this area than in substance abuse prevention.

Although efforts to apply the most effective substance abuse prevention models to AIDS have only recently begun, the urgency of the problem of AIDS argues against delaying the dissemination of these models until they have been extensively evaluated. There is an immediate need for school-based AIDS risk-reduction programs. There is already a substantial body of research supporting the efficacy of substance abuse prevention strategies that combine competence enhancement and the teaching of social resistance skills. In addition, existing knowledge concerning AIDS risk factors (i.e., the routes of transmission) and the factors promoting adolescent sexual behavior and substance abuse suggests that the same intervention approach may be effective for both problems. Thus, the field of AIDS prevention and risk reduction should proceed along two tracks with respect to school-based programs for children and adolescents: (a) widespread dissemination of the most promising models and (b) rigorous evaluation and refinement of these models. In view of the success demonstrated in recent years with respect to substance abuse prevention in particular, there is reason to be cautiously optimistic that these approaches may also prove to be effective in preventing AIDS.

- 22 Botvin, G. J., Dusenbury, L., Baker, E. M., James-Ortiz, S., & Botvin, E. M. (1992). **Smoking prevention among urban minority youth: Assessing effects on outcome and mediating variables. *Health Psychology*, 11(5), 290-299.**

The effectiveness of a social resistance/competence enhancement approach to smoking prevention was examined among 3,153 New York City 7th-graders from 47 public and parochial schools (56% Hispanic, 19% Black, 14% White, 12% other). After blocking on school type (public and parochial) and ethnic composition (percentage Hispanic) schools were randomly assigned either to receive the 14-session prevention program or to serve as no-contact controls. There were 19 parochial and 6 public schools, with 1,795 students total, in the experimental condition, and 17 parochial and 5 public schools, with 1,358 students total, in the control group. All students completed a pretest questionnaire which measured self-reported smoking status, as well as cognitive, attitudinal, and psychological traits expected to be related to smoking initiation. Carbon monoxide (CO) breath samples were also collected in a variation of the bogus pipeline procedure. Students at the experimental group schools received a 15-session smoking prevention program implemented by regular classroom teachers. All students completed the same questionnaire a second time at posttest, four weeks after the pretest, and, again, CO samples were collected. Smoking self-reports were taken with yes/no items for any smoking in the past month, past week, and past day to measure "experimental" smoking. A general measure of current smoking was taken with an 11-point scale, and intention to smoke in the future with a 5-point scale.

Using the school as the unit of analysis, significant program effects were found for cigarette smoking, normative expectations concerning peer and adult smoking, smoking prevalence knowledge, social acceptability knowledge, and knowledge of smoking consequences. The experimental group had smoking prevalence and initiation rates almost 30% lower than the control group. However, no main effects were found for school type or percent Hispanic, nor was any interaction found between experimental condition and either school type or percent Hispanic. The efficacy of a smoking prevention program which addresses the social influences believed to promote cigarette smoking within the context of a broader intervention designed to enhance general personal and social competence. This study extends the results of previous prevention research and demonstrates the generalizability of this approach to predominantly Hispanic urban minority students.

- 23 Botvin, G. J., Goldberg, C. J., Botvin, E. M., & Dusenbury, L. (1993). **Smoking behavior of adolescents exposed to cigarette advertising.** *Public Health Reports, 108*(2), 217-189.

The purpose of the study was to explore the relationship between the exposure of adolescents in the seventh and eighth grades to cigarette advertising and their being smokers. A survey questionnaire given to 602 students in grades 7 (28%) and 8 (72%) assessed their exposure to cigarette advertising and provided measures of their smoking behavior, demographic characteristics, and some psychosocial variables. The sample was 82% White, and came from four middle-class suburban junior high schools. The results indicated that exposure to cigarette advertising and having friends who smoked were predictive of current smoking status. Adolescents with high exposure to cigarette advertising were significantly more likely to be smokers, according to several measures of smoking behavior, than were those with low exposure to cigarette advertising. The highest correlation was between the number of cigarettes smoked per day and exposure to cigarette advertising. The findings extend previous research identifying factors that may play a role in the initiation and maintenance of smoking among adolescents, and they are consistent with social learning theory concerning the power of attractive models in promoting the adoption of specific behaviors. Nonetheless, these findings are suggestive rather than conclusive: the White middle-class sample of the current study cannot be generalized, and the observed association between smoking and advertising exposure might reflect selective attention on the part of smokers. Further research should extend the present study to other populations, and extend it longitudinally.

- 24 Bracha, H. S., & Bracha, A. S. (1992). **Knowledge of chemical abuse and AIDS among gifted junior high school students in Little Rock.** *Journal of the Arkansas Medical Society, 89*(4), 177-8.

A 12-question test was composed and administered to the 7th, 8th, and 9th grade Gifted-Talented Science Classes. A clustered stratified random sample of 66 students was selected out of the 194 students. The mean score was 70% for the 8th grade, 68% for the 7th grade, and 62% for the 9th grade. Knowledge among the students was especially deficient regarding the risk of legal drugs of abuse, i.e., cigarettes and alcohol.

- 25 Braggio, J. T., Pishkin, V., Gameros, T. A., & Brooks, D. L. (1993). **Academic achievement in substance-abusing and conduct-disordered adolescents.** *Journal of Clinical Psychology, 49*(2), 282-291.

The influence of adolescent alcohol abuse on academic achievement was studied among 53 Substance Abusing (SA) and 63 Conduct Disordered (CD) adolescent patients hospitalized in an Oklahoma City psychiatric care facility, and 22 Normal Student Control (NSC) adolescents who had never used alcohol from a nearby public school. Mean age of the groups were: SA, 14.6; CD, 14.2; NSC, 13.3 years. Subjects were stratified by Family History (FH) of alcoholism by and gender, and tested on the Peabody Individual Achievement Test (PIAT). While SAs and CDs did not differ on the PIAT, both had lower subtest and total test standard scores than NSCs. FH + SAs did not differ from FH + CDs on the Spelling subtest, but both groups had significant correlations between measures of alcohol intake and PIAT subtest scores. Male SAs had lower PIAT scores than male NSCs, while the difference between females in these groups was not significant. Findings thus suggest that alcohol use more adversely affects males' academic achievement than it does females'.

- 26 Brandon, P. R. (1992). **State-level evaluations of school programs funded under the Drug-Free Schools and Communities Act.** *Journal of Drug Education, 22*(1), 25-36.

Although the Drug-Free Schools and Communities Act of 1986 and the 1989 Amendments to the Act require states to evaluate their drug-education programs, no guidelines for conducting these evaluations have been produced, and little has been reported on how the states conduct such evaluations. Results are reported from a telephone survey of state officials on current state-level efforts to evaluate school programs funded under the Act. Some states report studies of the implementation of the program and some report drug- and alcohol-use surveys. Together, these two types of evaluation efforts form the foundation of an approach for conducting evaluations under the Act. Reasons are presented why experimental and quasi-experimental designs might be inappropriate and impractical for the

evaluations, and an evaluation approach linking program implementation findings and drug- and alcohol-use survey results is suggested.

- 27 Brook, J. S., Hamburg, B. A., Balka, E. B., & Wynn, P. S. (1992). Sequences of drug involvement in African-American and Puerto Rican adolescents. *Psychological Reports, 71*, 179-182.

Stages of drug involvement were investigated in a sample of 695 African American and 637 Puerto Rican inner-city adolescents in grades 7-10. The subjects were divided into four hierarchical categories of drug involvement: (a) abstinence; (b) use of "legal" drugs (i.e., alcohol and tobacco); (c) marijuana use, with no use of other illegal drugs; and (d) use of illicit drugs other than marijuana. Guttman scalogram analyses were done separately for African Americans and for Puerto Ricans, in order to assess ethnic differences in sequence of drug involvement. For both African Americans and Puerto Ricans, the results fit the Guttman scale model of drug involvement, indicating a sequence of involvement similar to the sequence identified in White students. African-American students were more often represented in the first group (abstainers) than the Puerto Rican students (53.7% vs. 51.3%), and in the drinking and smoking group (37.4% vs. 33.3%); however, Puerto-Ricans were better represented in the marijuana use group than Blacks (7.9% vs. 4.6%), and the other illicit drug use group (7.5% vs. 4.6%). Analysis indicated that adolescents progressed through the four categories of drug involvement. The sequence of drug involvement for both ethnic groups appears to be both unidimensional and cumulative: that is, adolescents at a particular stage are likely to have used drugs at the preceding stages and not to have used drugs at later stages in the sequence. These findings do not, however, support the "stepping-stone" hypothesis which suggests that use of any particular drug leads to the use of drugs at the next stage in the sequence. Since legal drugs are used by African-American and Puerto Rican adolescents prior to illegal drugs, prevention efforts directed at the legal drugs, if successful, might decrease the use of illegal ones as well.

- 28 Brook, J. S., Whiteman, M. M., & Finch, S. (1992). Childhood aggression, adolescent delinquency, and drug use: A longitudinal study. *Journal of Genetic Psychology, 153*(4), 369-383.

The interrelation of childhood aggression, early and late adolescent delinquency, and drug use was explored. Data were obtained from the subjects' mothers when subjects were 5-10 years old. Follow-up interviews were conducted when the subjects were between 13-18 years old and again when they were 15-20 years old. Complete data at all three waves were obtained for 412 subjects, who were mostly White (less than 10% were Black or Hispanic), and lived in two counties in upstate New York. A LISREL analysis of the three waves of data indicated that childhood aggression is a precursor of adolescent drug use and delinquency, and that early adolescent drug use is correlated with contemporaneous delinquency, as well as with later drug use and delinquency. While gender differences were found both in delinquency and in drug use, no gender difference was found for the linkages between aggression, delinquency, and drug use. These findings support the hypothesis that children who manifest early antisocial behavior are likely to continue antisocial behavior.

- 29 Brook, J. S., Whiteman, M., Balka, E. B., & Hamburg, B. A. (1992). African-American and Puerto Rican drug use: Personality, familial, and other environmental risk factors. *Genetic, Social, and General Psychology Monographs, 118*(4), 417-38.

Using a family interactional theoretical framework giving primacy to the mutual attachment between parent and child, an examination was made of the interrelationship of acculturation, ecological factors, family, personality, peers, and drug context domains with drug use in an inner city sample, and of the extent to which family protective factors mitigated against risks for drug use from most of the other domains. The sample consisted of 695 African-American and 637 Puerto Rican 7th-10th graders in East Harlem who answered the questionnaire while listening to it on personal tape players in their classrooms. The results of hierarchical regression analyses sufficiently supported the hypothesized sequence of interrelationships in both ethnic groups to substantiate our developmental model of drug use. Both protective buffers common to both ethnic groups and buffers specific to each group were also found. The implications of the results for targets and timing of intervention in the path to drug use are discussed.

- 30 Brook, J. S., Whiteman, M., Cohen, P., & Tanaka, J. S. (1992). **Childhood precursors of adolescent drug use: A longitudinal analysis.** *Genetic, Social, and General Psychology Monographs, 118*(2), 195-213.

Childhood and adolescent intrapersonal and interpersonal influences on older adolescents' drug use were examined with an interactional approach. Data were obtained when subjects were 5-10, 13-18, and 15-20 years old. Latent-variable confirmatory factor analysis was used to determine the fit of the variables to the latent constructs. Next, a structural model was hypothesized and tested to assess the influences of childhood and earlier adolescent factors on later adolescent drug use. Childhood aggression and parental sociopathy affected drug use in late adolescence. Unconventionality during early and middle adolescence had an important and pervasive impact on all aspects of middle and late adolescent functioning. Finally, both intrapersonal and interpersonal factors from childhood and early adolescence affected self-drug use during middle and late adolescence.

- 31 Bruce, C., & Emshoff, J. (1992). **The SUPER II program: An early intervention program.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 10-21.

The Substance Use Prevention and Education Resource II program (SUPER II) is an early intervention program designed for high-risk urban youths, ages 11-17. Conducted in the metropolitan Atlanta area, youths and their parents attended seven 2-hour sessions that included educational, experiential, and skill-building activities. Separate and joint groups were conducted by adult and peer leaders for youths and parents. Program goals were to increase participants' knowledge of drugs, communication techniques, and parents' knowledge of how to talk to their children about drugs. Changes also were sought to increase parent-child communication, youths' assertiveness and self-esteem, the esteem the parent had for the youth, resistance of the youth to use drugs, and family functioning. Last, it was hoped that the program would decrease the amount of drug use by youths, modes by which drugs were used, frequency of use, effects experienced by drug use, and behavioral problems resulting from use. Using a pre-, posttest design, significant increases were found for both youths and parents in their knowledge of drugs and good communication. After the program, parents also reported a significant increase in family functioning and the esteem they had for the youth. On a 3-month follow-up measure for the youths, significant decreases were found in the frequency of substance use, number of modes of drugs used, and physical effects from use.

- 32 Bruvold, W. H. (1993). **A meta-analysis of adolescent smoking prevention programs.** *American Journal of Public Health, 83*(6), 872-880.

A large number of studies evaluating adolescent smoking prevention programs have been published. Systematic quantitative reviews of this literature are needed to learn what does and does not work. The present meta-analysis focuses on the efficacy of school-based programs. Evaluations of 94 separate interventions were included in the meta-analysis. Studies were screened for methodological rigor and those with weaker methodology were segregated from those with more defensible methodology; major analyses focused on the latter. Behavioral effect sizes were found to be largest for interventions with a social reinforcement orientation, moderate for interventions with either a developmental or a social norms orientation, and small for interventions with the traditional rational orientation. Attitude effect sizes followed the same pattern, but knowledge effect sizes were similar across all four orientation categories. Because behavioral effect represents the fundamental objective of programs for prevention of adolescent tobacco use, the present results indicate that school-based programs should consider adopting interventions with a social reinforcement, social norms, or developmental orientation.

- 33 Bry, B. H., & Krinsley, K. E. (1992). **Booster sessions and long-term effects of behavioral family therapy on adolescent substance use and school performance.** *Journal of Behavioral Therapy and Experimental Psychiatry, 23*(3), 183-189.

This study investigated the long-term impact on adolescent substance use and academic failure of 6 months of booster sessions following the termination of behavioral family therapy. Subjects were four 14-16-year-old White and Hispanic males and females whose parents or teachers had referred them for 5-12 months of behavioral family therapy. The first subject received no booster sessions; after the typical decrease in substance use and academic problems at the end of treatment, his problems recurred and subsequently worsened during follow-up. The other three subjects responded similarly to behavioral family therapy, but also received 6 months of booster sessions, leading to

a second decrease in substance use and academic problems. Improvement was maintained throughout follow-up. These results suggest that booster sessions can prevent the recurrences of adolescent problem behavior that often follow treatment termination.

- 34 Buford, B. (Ed.). (1992). *Shining stars: Prevention programs that work in the Southeast*. Louisville, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Prevention programs in the Southeastern United States that appear to be producing favorable effects are described.

- 35 Bukstein, O. G., Glancy, L. J., & Kaminer, Y. (1992). Patterns of affective comorbidity in a clinical population of dually diagnosed adolescent substance abusers. *Journal of American Academy of Child and Adolescent Psychiatry*, 31(6), 1041-1045.

Patterns of affective comorbidity with substance abuse are examined in a sample of 156 adolescent psychiatric patients, ages 13 to 18 years old, at an inpatient dual-diagnosis treatment unit in a Pittsburgh psychiatric hospital. Affective disorders, including adjustment disorder with depressed mood, were observed in 51.3% of patients. A total of 30.7% of patients had comorbid major depression. In both males and females, secondary major depressive disorder was more common than its primary form. In this population, the primary-secondary paradigm did not predict either acute remission for depressive symptoms or distinct family history of comorbid disorders. Consistent with previous studies of adults, significantly more females had comorbid affective disorder and significantly more males had conduct disorder.

- 36 Bush, P. J., & Iannotti, R. J. (1993). Alcohol, cigarette, and marijuana use among fourth-grade urban schoolchildren in 1988/89 and 1990/91. *American Journal of Public Health*, 83(1), 111-114.

A public-school-based epidemiological survey of 4th-grade students in Washington, DC, was performed in 1988-89 ($n = 4,675$) and 1990-91 ($n = 4,678$). Comparisons of data for the two periods revealed that the lifetime prevalence of self-reported alcohol use, alcohol use without parental knowledge, and smoking more than a puff of cigarettes had declined; marijuana use and cigarette experimentation had not. The prevalence of any alcohol use had decreased from 51.4% in 1988-89 to 42.6% in 1990-91. Decreases were also observed in perceived peer pressure to use; seeing a family member/friend selling drugs; and being offered alcohol, cigarettes, or marijuana by peers. No decrease was observed in family use, perceived friends' use, being bothered a lot if best friends use, or seeing someone else selling drugs. The decrease in alcohol use among 4th-graders is consistent with declines reported among high school seniors. Declines observed, however, are small, and self-reports may have been influenced by the changing social acceptability of use.

- 37 Bush, P. J., & Iannotti, R. J. (1992). Elementary schoolchildren's use of alcohol, cigarettes and marijuana and classmates' attribution of socialization. *Drug and Alcohol Dependence*, 30, 275-287.

In 1988 and 1989, beginning in the fourth and fifth grades, 1,904 Washington, DC, public elementary school students completed surveys about abusable substance use and health-promoting behaviors and completed an instrument that permitted each child to have a socialization score attributed by classmates. A factor weighted 12-item scale was developed from 15 items in three domains (personal, interpersonal and school). The scale was positively correlated over the 2 years and positively correlated with a healthful activities scale in both years. Conditional multiple logistic regression, matching on school classroom, indicated that socialization was negatively associated with use of alcohol without parental permission and cigarettes in both years (grades 4-5, grades 5-6) and with use of marijuana in year 1. Socialization measured in year 1 was negatively associated with cigarette use in year 2 and with onset of use from year 1 to year 2. Shyness, a non-socialization scale item was negatively associated with use of cigarettes in both years and with use of alcohol without permission and use of marijuana in year 2. Being "good at sports" was an attribute positively associated with alcohol use without permission and

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cigarette use in year 2. Results suggest that elementary school students can ascribe social characteristics to their classmates that are associated with and predict health related behaviors.

- 38 Butler, J. P. (1992). **Of kindred minds: The ties that bind.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 23-54). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

African Americans are a culturally distinct group of people bound by an ideological unity and a functional system of values and beliefs. Their cultural ethos and worldview are inextricably woven together to give meaning and order to both their historical and contemporary experiences. An appreciation of these cultural elements is a prerequisite to understanding and interpreting their patterns of behavior. In this chapter African Americans, a highly complex and diverse people, are characterized in terms of the behaviors and lifestyle factors that make them a culturally identifiable entity. The chapter frames the African-American experience within its historical and contemporary contexts and focuses attention on the pervading conceptual frame of reference that has sustained and continues to sustain this people. The chapter's principal objective is to increase awareness and to enhance understanding of the core elements of African-American culture as they relate to the evaluation of alcohol and other drug use and misuse prevention efforts.

- 39 Casas, J. M. (1992). **A culturally sensitive model for evaluating alcohol and other drug abuse prevention programs: A Hispanic perspective.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 75-116). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

This chapter seeks to increase the understanding of demographic, sociocultural, and psychological variables that need to be taken into consideration when evaluating alcohol and other drug misuse and abuse prevention programs earmarked for Hispanic communities. To this end, this chapter first defines and describes a comprehensive evaluation process that he believes to be most appropriate and effective for use in evaluating such programs. Second, to exemplify how such a process can be feasibly carried out, it presents an implementation model, which is then used to show how Hispanic demographic, sociocultural, and psychological characteristics can and should be considered in the evaluation process.

- 40 Cato, B. M. (1992). **Youth's recreation and drug sensation: Is there a relationship?** *Journal of Drug Education*, 22(4), 293-301.

Data on adolescents' preferences for pleasure—drugs or recreation—were collected from a sample of 100 high school students from a medium-sized college town, and 100 students from a rural town, both in Florida. The city sample was 66% White, 29% Black, and 4% Native American; the rural sample was 78% White, 18% Black, and 2% Hispanic. Findings revealed four statistically significant associations in the motives or pleasures sought in recreation and in drug behaviors: "enhancement of popularity" for the rural group; and, for the city group, negative correlations with "provision of a means for self-discovery" and "achievement of personal goal," and a positive correlation for rebelling against parents. In reference to the latter motive, findings revealed that neither drugs nor recreation were used to rebel against parents. Findings also provide documentation of the value of recreation in insulating adolescents against many of the stressors of contemporary life.

- 41 Cella, D. F., Tulskey, D. S., Sarafian, B., Thomas Jr., C. R., & Thomas Sr., C. R. (1992). **Culturally relevant smoking prevention for minority youth.** *Journal of School Health*, 62(8), 377-380.

A rap contest methodology for smoking prevention was tested with 6th and 7th grade students at four schools in a predominantly minority North Chicago public school district ($N = 268$; 57% Blacks, 19% Hispanics, 17% White). Contests were held after initial assemblies in which students heard anti-smoking rap messages from same-age and older peers on audio and video tape. The actual contest took place in the second assembly. Groups of students presented rap performances 1-3 minutes long, and were judged on originality, depth of content, and performance.

Each member of the winning group at each school received \$25 cash. Posttest data were collected in classrooms immediately following the assembly on students' evaluations of each assembly and students' projections about their own and their peers' future smoking behavior. Two schools held single-classroom assemblies ($n = 25$), and the other two held larger assemblies ($n = 120$). Pretesting and posttesting indicated high preference ratings for most aspects of the intervention. Although 22% of the sample had tried cigarettes at least once, much smaller percentages reported that they currently smoked (3% at pretest, 6% at posttest; this difference was deemed not significant). Students reported strong negative attitudes at pretest, which persisted at posttest. Students who attended the smaller assemblies showed more negative attitudes at posttest, while those who attended larger assemblies showed attitudes about the same. Analysis revealed no significant difference in attitude change between contest participants and attending nonparticipants. Analyses of variance revealed no differences across races on any of the dependent measures. However, smaller assemblies were more effective than larger ones in enhancing attitudes against smoking and obtaining more positive contest evaluations and predictions about smoking behavior. In light of the strong negative smoking attitudes at pretest, the small change in attitudes may be due to a ceiling effect. A rap contest method therefore may be effective against the initiation of smoking by disadvantaged children in 6th and 7th grades because it is highly acceptable and perceived as culturally relevant. This effectiveness may be more demonstrable in single classrooms rather than larger assemblies. Followup studies are needed to determine whether such an intervention may have any long-term impact on smoking initiation or cessation.

- 42 Chassin, L., Pillow, D. R., Curran, P. J., Molina, B. S. G., & Barrera Jr., M. (1993). **Relation of parental alcoholism to early adolescent substance use: A test of three mediating mechanisms.** *Journal of Abnormal Psychology, 102*(1), 3-19.

The current study assessed 3 hypothesized mediating mechanisms underlying the relation between prenatal alcoholism and adolescent substance use. Using structural equation modeling, we analyzed data obtained from a large community sample of adolescent children of alcoholics and a demographically matched comparison group. Results suggested that parental alcoholism influenced adolescent substance use through stress and negative affect pathways, through decreased parental monitoring, and through increased temperamental emotionality (which was associated with heightened negative affect). Both negative affect and impaired parental monitoring were associated with adolescents' membership in a peer network that supported drug use behavior. The data did not support a link between parental alcoholism and temperamental sociability.

- 43 Chassin, L., Presson, C. C., Sherman, S. J., & Edwards, D. A. (1992). **Parent education attainment and adolescent cigarette smoking.** *Journal of Substance Abuse, 4*, 219-234.

In a longitudinal design, this study examined psychosocial mediators of the effects of parental educational attainment on adolescent smoking acquisition and also examined whether smoking transition had different antecedents among adolescents from families of varying educational backgrounds. The sample included all middle school and high school students (grades 6-12) at a county school system in a midwestern state. The sample was 97% White, and evenly divided on gender. Parents' low educational attainment acted as a moderate to strong risk factor for the initial onset of smoking among middle school girls. Some of this effect was mediated by the higher smoking prevalence among both parents and friends of these adolescent girls, as well as by their lowered expectations for academic success. However, these variables only partially mediated the effect of parent education. There were few indications of differential antecedents of smoking acquisition among adolescents from less and more highly educated families.

- 44 Colder, C. R., & Chassin, L. (1993). **The stress and negative affect model of adolescent alcohol use and the moderating effects of behavioral undercontrol.** *Journal of Studies on Alcohol, 54*, 326-333.

Empirical evidence for the stress and negative affect model of adolescent alcohol use has been inconsistent. The current study assessed behavioral undercontrol as a moderator of the stress and negative affect model of adolescent alcohol use. Using a community-based sample of 244 adolescent children of alcoholics (COAs) and a demographically matched comparison group (208 non-COAs), life stress, negative affect, behavioral undercontrol and alcohol use were assessed. The samples were 70% White, nonHispanic, and 47% female. Results showed that the stress and negative affect model predicted alcohol use. Consistent with theoretical predictions and previous research,

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negative affect partially mediated the relation between stress and alcohol use. However, behavioral undercontrol did not moderate the effects of stress and negative affect for COAs and non-COAs.

- 45 Conner, J. L., & Conner, C. N. (1992). **Effects of primary prevention on attitudes and alcohol and other drug use with at-risk American-Indian youth.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 164-173). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

The impact of an intensive retreat for American-Indian youth in high-risk environments was assessed. The findings indicated that the experience greatly reduced excessive drinking among their targeted adolescents. Their evaluation design was unique in assessing attitudes that were and were not expected to change. Those variables not expected to change because they were not related to the goals of the retreat served as control for the attitudes that were expected to change. Their results were consistent with these expectations and their model for evaluation was very appropriate for demonstration programs.

- 46 Cornelius, M. D., Day, N. L., Cornelius, J. R., Geva, D., Taylor, P. M., & Richardson, G. A. (1993). **Drinking patterns and correlates of drinking among pregnant teenagers.** *Alcoholism: Clinical and Experimental Research*, 17(2), 290-294.

Many adolescents drink, and the rate of teenage pregnancy is increasing, yet the effect of drinking among pregnant teenagers has received little attention. We present a description of the drinking patterns of 124 pregnant teenagers attending a prenatal clinic in Pittsburgh. Sixty-nine percent of the women were African-American, and the average age was 16 years (range 13-18 years). Eighty-two percent drank the year before pregnancy, while 54%, 19%, and 15% drank during the first, second, and third trimesters, respectively. All substance use decreased between the first and third trimesters, with the exception of tobacco, which rose significantly. Binge drinking (5+ drinks/occasion) occurred in 31% of the sample before pregnancy, rose to 35% in the first trimester, and then fell precipitously. Binge drinkers during pregnancy were more likely to be white and heavier users of tobacco, marijuana, and cocaine. Binge drinkers experienced alcohol and tobacco use and sexual intercourse earlier than nonbinge drinkers. Binge drinking during the first trimester may be considered a risk factor for infants of adolescents.

- 47 Covert, J., & Wangberg, D. (1992). **Peer counseling: Positive peer pressure.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 131-139). Gaithersburg, MD: Aspen Publishers.

One of the most prevalent means used by adolescents in coping with the escalating stress that they face is the use, and for some, the abuse of alcohol and drugs. To counter this and to prevent problematic substance abuse, groups such as Alcoholics Anonymous, and Beer Drinkers of America, and programs such as Just Say No, have been developed. Behavioral programs, medical interventions together with psychotherapy and counseling have been tried to mitigate the effects of problematic substance abuse. All these programs have had limited success, and many authorities agree that some form of counseling should accompany any treatment method. Among the many different counseling modalities one that has shown great promise for adolescents is peer counseling. This chapter discusses this concept of peer counseling with particular focus on its advantages, training requirements, program evaluation and a peer counseling model program.

- 48 Creath, C. J., Wright, J. T., & Wisniewski, J. F. (1992). **Characteristics of smokeless tobacco use among high school football players as related to type of smokeless tobacco and period of use.** *Journal of Drug Education*, 22(1), 69-85.

A study was conducted to assess differences in the behavioral and demographic characteristics of snuff (dip) users as compared to users of chewing tobacco. High School football players ($N = 1,116$) were surveyed concerning their use and perceptions of smokeless tobacco. Adolescent athletes who tried smokeless tobacco were more likely to be White, to use cigarettes, alcohol, and cigars and to have family users than those who never tried. Initial use was highest before the age of fourteen years and was influenced by friends, curiosity and family. Dippers tended to initiate use because of friends, while chewers started because of family users. Users of both dip and chew started

primarily because of curiosity. Users of both were more likely to consume greater amounts of alcohol and cigarettes and to smoke cigars and pipes. It appears that the longer smokeless tobacco is consumed, the more likely both dip and chew will be used. Users of smokeless tobacco for more than two years tended to consume more of the product each week, used it for more hours/day, initiated use at an earlier age, and used it more often at school and work than those using it for less than two years. Use of cigars/pipes, consumption of alcohol, and quantity of cigarette consumption increased significantly with longer duration of smokeless tobacco use. Intervention and prevention programs would be helped by understanding differences between users of various smokeless tobacco products and differences related to the duration of use. In addition, further analyses of smokeless tobacco users should study chewers, dippers, and users of both separately.

- 49 Cromwell, P., & LeMoine, A. (1992). **Identifying substance use: An assessment tool for the school nurse.** *Journal of School Nursing*, 8(3), 6-10, 12, 14-5.

A nursing assessment tool was developed to identify students who may be using drugs or alcohol. The three-part tool enables the school nurse to identify those students who require immediate medical care, as well as those who are impaired by substance use but medically stable. The use of the tool and implications for school nurses are discussed.

- 50 Culhane, D. P., Hadley, T. R., & Lutterman, T. C. (1992). **Who's paying for public substance abuse programs? Trends and inter-state variability in the revenues of state drug and alcohol abuse agencies, from 1985 to 1989.** *Journal of Drug Issues*, 22(4), 939-947.

Shifts in inflation-adjusted revenue sources of state drug and alcohol abuse agencies are examined for the years 1985 to 1989. All revenues sources showed substantial increases in contributions during this period, with the federal block grant providing the largest absolute increase to state revenues (+55%). States continued to be the largest payor for public substance abuse services, accounting for 47% of the total, with the federal government increasing its proportionate share 8%. Interstate variability in per capita expenditures on public substance abuse services is considerable, primarily due to variations in revenues provided by state governments. Future research is needed to determine the sources and effects of differences in states' relative commitment to substance abuse services.

- 51 Dahmus, S., Bernardin, H. J., & Bernardin, K. (1992). **Personal experience inventory.** *Measurement and Evaluation in Counseling and Development*, 25(2), 91-94.

The Personal Experience Inventory (PEI), a self-report inventory designated to assist in the identification, referral, and treatment of problems associated with teenage alcohol and drug abuse, is reviewed. The PEI was found to be unmatched in its reliability and validity, and in the extent to which the PEI has actually accomplished the purposes for which it was developed.

- 52 Daily, S. G. (1992). **Alcohol, incest, and adolescence.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 251-266). Gaithersburg, MD: Aspen Publishers.

Incest, a long-standing problem for adolescents is sometimes overlooked in its relationship to substance abuse. An examination of studies on incest from the perspective of dysfunctional family systems reveals some basic general patterns of relation to alcohol abuse. First, most incest cases involve father-figure offenders who generally demonstrate a high incidence of alcohol abuse. Second, an unusually high percentage of women who are treated for chemical dependency were the victims of incest when they were adolescents or children. Mother-son, mother-daughter, and father-son incest are believed to be significantly more rare than is either father-daughter incest or sibling incest. Because it does not involve the use of power or coercion, sibling incest is believed to be much less harmful. It is concluded that marital sexual maladjustment and incompatibility are so common in the alcoholic and/or incestuous family system, it is often almost impossible for adolescents to observe proper or healthy parental modeling at any stage in their sexual development. Logically such teenagers feel incapable of developing warm, trusting, and appropriately affectionate relationships with peers, while family intimacy dysfunction is often the only norm that they have known. The unique developmental challenges facing adolescents in alcoholic/incestuous family

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systems make the treatment of these individuals significantly more complex than the treatment of family members in less demanding developmental stages.

- 53 Daily, S. G. (1992). **Suicide solution: The relationship of alcohol and drug abuse to adolescent suicide.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 233-249). Gaithersburg, MD: Aspen Publishers.

Adolescent substance abuse is a complex disorder that is made more complex by the problems that are often associated or co-exist with it. These related problems are as dangerous and as destructive as the abuse itself. Suicide is the second leading cause of death for teenagers in the United States, after alcohol, and it is argued that in most cases these two causes of teenage death cannot be separated. Due to high levels of alcohol in adolescents involved in deliberate and not so deliberate accidents, it is concluded that adolescent alcohol and drug abuse are important contributors to the rising teenage suicide rate.

- 54 Dembo, R., Williams, L., Schmeidler, J., Berry, E., Wothke, W., Getreu, A., Wish, E. D., & Christensen, C. (1992). **A structural model examining the relationship between physical child abuse, sexual victimization, and marijuana/hashish use in delinquent youth: A longitudinal study.** *Violence and Victims*, 7(1), 41-62.

A structural model of the relationships among physical abuse and sexual victimization experiences, marijuana/hashish use (measured by self-report and urine test data) and self-reported delinquent behavior (theft crimes, index offenses, crimes against persons, drug sales and total delinquency) over time was tested in a study of juvenile detainees. Most of the 201 youths involved in the analyses we report were male (74%) and Anglo (54%); 38% of the detainees were Black. They averaged 16 years of age. The hypothesized model was supported by the data from the second phase of the ongoing longitudinal study. A few differences were found in the magnitude of relationships among the variables in the model between the Black and White male youths. However, there were many similarities in the interrelationships among the variables. As far as gender specific behavior is concerned, we were able to find differences in mean level or prevalence rates for several variables; further differences were found in the magnitude and form of relationship among several of the variables. At the same time, there were many similarities between the male and female youths in the patterns and strength of association among the variables in the model. Theoretical, research and policy implications of the results are drawn.

- 55 Dembo, R., Williams, L., Wothke, W., & Schmeidler, J. (1992). **Examining a structural model of the relationships among alcohol use, marijuana/hashish use, their effects, and emotional and psychological problems over time in a cohort of high-risk youths.** *Deviant Behavior*, 13(2), 185-215.

Using data collected in a longitudinal study of detained juveniles, a model was tested for the relationships among alcohol and marijuana or hashish use, reported adverse effects of the use of these substances, and emotional and psychological problems. Most of the 201 youths involved in the analyses we report were male (74%) and Anglo (54%); 38% of the detainees were Black. They averaged 16 years of age. Significant interrelationships were found among these factors over time. Degree of involvement in alcohol and marijuana or hashish use (measured either by self-reports or by both self-reports and urine test results) was significantly related at Time 1 with the number of reported adverse effects of the use of each specific substance; a similar relationship was found at Time 2 for marijuana or hashish use. In addition, emotional and psychological problems were significantly associated with reported adverse effects of the use of alcohol or marijuana or hashish at each time period. The results further indicate that youths who become more involved in the use of alcohol or marijuana or hashish over time reported more adverse effects of their use of each of these substances. These findings highlight a network of interconnected experiences that add insight into the youths' functioning over time. At the same time, the youths' Time 2 emotional and psychological problems, reported effects of their alcohol use, and reported effects of their marijuana or hashish use are weakly predicted by the variables in the model; these findings suggest considerable change in these experiences over time.

- 56 Dembo, R., Williams, L., Wothke, W., Schmeidler, J., & Brown, C. H. (1992). **The role of family factors, physical abuse, and sexual victimization experiences in high-risk youths' alcohol and other drug use and delinquency: a longitudinal model.** *Violence and Victims*, 7(3), 245-66.

Knowledge of the adverse effects of early child physical and sexual abuse has developed to a point where there is need to elucidate the processes by which various developmental outcomes occur. Limited variability on key measures of family stress and in youths' drug use, other delinquent behavior and abuse histories in the general population has limited theory development. Using data on 399 subjects (74% male, and 54% Anglo) from an ongoing longitudinal study of Florida juvenile detainees, we test a developmental damage model of the relationships among the youths' family background and problem factors, their sexual victimization and physical abuse experiences, and their substance use and delinquent behavior over time. The hypothesized model was supported by the data. In particular, early intervention with high-risk youths and their families is needed to address effectively their problems and troubled behavior before drug use and delinquent careers become firmly established.

- 57 Dent, C. W., Galiaif, J., Sussman, S., Stacy, A., Burtun, D., & Flay, B. R. (1993). **Demographic, psychosocial and behavioral differences in samples of actively and passively consented adolescents.** *Addictive Behaviors*, 18, 51-56.

Requiring active consent from adolescents' parents produces samples different from those produced when it is not required, and sample difference is reflected in the sample's self-reports. Data are presented from a sample of 3,946 6th-grade students from 28 randomly-selected public schools in the Los Angeles area. Half the schools were in suburban or rural areas, and half in highly urban areas; 60% of survey respondents were White, 19% Hispanic, and 21% others; 58% were males, and 42% females. The present study compares self-reported demographic, psychosocial, and behavior variables between those students for whom active parental consent was obtained (78%) and those for whom active consent was withheld, but passive consent was obtained (22%). As found in previous studies, fewer minorities, fewer persons who were dissatisfied with school, fewer persons whose parents were of lower educational levels, and fewer cigarette smokers were represented in the sample recruited by active parental consent than in the passive consent sample. Extending on previous work, we found those students whose parents failed to respond to the consent procedure were less likely to live with both parents, were more likely to be latch-key children, placed a lower priority on health, and were higher in risk-taking, lower in self-esteem, and lower in assertiveness than those whose parents had responded. These data further support the suggestion that those children who are omitted from a research study because of lack of action on the part of the parent are at higher risk for a number of health and social problems. These children need to be included in evaluation samples in order to accurately assess the effectiveness of prevention programming. Future studies should employ a passive consent procedure as a means of recruiting a representative subject pool in based prevention research.

- 58 Deykin, E. Y., Buka, S. L., & Zeena, T. H. (1992). **Depressive illness among chemically dependent adolescents.** *American Journal of Psychiatry*, 149(10), 1341-1347.

The prevalence and correlates of depression among adolescents being treated for chemical dependence were investigated. Using the National Institute of Mental Health Diagnostic Interview Schedule, the authors interviewed 223 adolescents, aged 15-19 years, who were in residential treatment for alcohol or drug dependence diagnosed according to DSM-III-R criteria. Data on sociodemographic characteristics, school and social performance, past history, family composition, familial alcohol and drug abuse, and previous victimization of the subjects were also gathered. Fifty-four (24.7%) of the subjects met the DSM-III-R criteria for depression. Very few of the traditional correlates of depression discriminated depressed from nondepressed subjects, suggesting that the presence of chemical dependence overrides other predictors of depression. Only female gender, paternal psychopathology, and victimization (physical abuse, sexual abuse) emerged as important variables associated with depression. However, subjects whose onset of depression preceded their chemical dependence had different characteristics from those whose depression began after their chemical dependence. The prevalence of depressive illness in these chemically dependent adolescents was approximately three times that reported for nonreferred groups of similar age. This high rate of depression reflects the contributions of two distinct groups—those with primary depression and those with depression subsequent to chemical dependence—whose characteristics differed, suggesting the possibility of two pathologic processes, similar in manifestation but with different associated features and possibly with distinct

etiologies. Confirmation of these findings in further research could indicate that the two forms of depression may require different treatment approaches.

- 59 Dick, R. W., Manson, S. M., & Beals, J. (1993). **Alcohol use among male and female Native American adolescents: Patterns and correlates of student drinking in a boarding school.** *Journal of Studies on Alcohol, 54*, 172-177.

Data is presented from the first wave of a longitudinal study on a sample of Native American students at a tribally-administered boarding school funded by the Bureau of Indian Affairs. The first wave of data was collected in January 1988. Data was collected from 188 students (52% female), distributed almost evenly across grades 9-12, 84% of whom belong to the five tribes neighboring the school. Self-report questionnaires were used to elicit data on frequency, quantity, intensity, and social context of respondents' alcohol use; any intervention experience; stressful life events; religious activity and beliefs; school experience; depression; social support from friends and from family. Most students ($n = 162$, 86%) reported at least some alcohol use, and one third ($n = 63$) had used alcohol at least three times in the previous month (defined as moderate to heavy use). Half classified themselves between "moderate" and "very heavy" drinkers, 42% had consumed six or more drinks on a single occasion, and 45% reported they had experienced blackouts in the previous six months. Sixteen (9%) had received some treatment for alcohol abuse or dependence. The majority of respondents indicated either occasional binge drinking or frequent drinking of small amounts of alcohol, and 42% reported having gotten drunk at least once in the previous month. Greater percentages of female students than males reported alcohol use on school days, both during the day and in the evenings. Similarly greater percentages of females than males reported blackouts.

High familial support correlated with self-perception of lower use intensity, and with a lower rate of intoxication. Peer support did not correlate with any of the alcohol-use constructs. Reported frequency of stressful life events correlated positively with self-perception of use, and with the quantity-frequency index of alcohol consumption. Emotional distress correlated with self-perception of use, frequency of intoxication, and the quantity-frequency index. Multiple-regression analyses were run to assess relationships between each of the alcohol use indices (quantity-frequency, self-perception of use intensity, and frequency of intoxication) and depression, social support, and stressful life events. Significant relationships were only found between familial support and both the quantity-frequency index and frequency of intoxication, and a marginal relationship was found between peer support and frequency of intoxication. Both bivariate and multivariate analyses showed family support to have the strongest association with drinking patterns in this population. These analyses also showed an association between stressful life events and the combined quantity and frequency of alcohol use. The relationships found are believed to be related to the environment of the study, a tribal boarding school.

- 60 Dielman, T. E., Kloska, D. D., Leech, S. L., Schulenberg, J. E., & Shope, J. T. (1992). **Susceptibility to peer pressure as an explanatory variable for the differential effectiveness of an alcohol misuse prevention program in elementary schools.** *Journal of School Health, 62*(6), 233-237.

A school-based Alcohol Misuse Prevention program had differential effects on students' susceptibility to peer pressure, depending on prior experience with alcohol. These effects paralleled those on alcohol use and misuse, indicating program effects on use and misuse were mediated by reductions in the rate of increase on susceptibility to peer pressure. Analyses are based on data from 714 6th-grade students who were present at all four testing occasions: pretest, posttest, and one- and two-year follow-ups. Experimental group students with prior unsupervised use of alcohol showed a significantly greater reduction than their controls in the rate of increase in susceptibility to peer pressure, alcohol use, and alcohol misuse. This difference was not found among students without prior unsupervised use of alcohol. These findings support the use of social pressure resistance skills training in school prevention programs.

- 61 DiFranza, J. R., & Brown, L. J. (1992). **The tobacco institute's "It's the Law" campaign: Has it halted illegal sales of tobacco to children?** *American Journal of Public Health, 82*(9), 1271-1273.

To determine whether tobacco industry self-regulation is a useful alternative to active enforcement of the law, the effectiveness of the Tobacco Institute's "It's the Law" campaign was tested 7 months after its launch by studying 156 tobacco retailers located by the survey team while driving in urban and suburban areas of central Massachusetts. To

evaluate merchant compliance with the state law, which prohibits the sale of tobacco to minors under 18 years of age and which requires the posting of warning signs to that effect, five underage buyers (aged 13 to 16, both male and female) were used to make sham purchases. The prospective buyer would ask the sales clerk for cigarettes, but when the cigarettes were placed on the counter and payment was requested the buyer indicated that he or she did not have enough money and left the premises. With cigarette machines, the underage buyer inserted the correct amount of money and, if he or she had not been stopped at that point, pulled the coin return instead of selecting cigarettes. Buyers were truthful about their age if asked, and made no attempt to appear older. Each establishment was inspected to determine whether it had posted Tobacco Institute "It's the Law" signs or the state-mandated signs. The survey was completed over a 3-week period in the summer of 1991. Most of the outlets were pharmacies, but convenience stores, gas stations, supermarkets, liquor stores, restaurants, hotels, and a pub were also represented. Eight locations sold cigarettes from vending machines. Only 4.5% (7) of the 156 retailers surveyed were participating in the Tobacco Institute's "It's the Law" program, and six of these seven (86%) were willing to illegally sell cigarettes to children. Of the nonparticipants, 88% (131/149) were willing to sell cigarettes to children. State-mandated warning signs were displayed by only 61 surveyed retailers, and 80% of these (49) were willing to illegally sell tobacco to children. Findings indicate that the Tobacco Institute's voluntary program has not stopped the illegal sale of tobacco products to children. Merchant participation in the program is extremely low, and even participating merchants illegally sell tobacco to children. Active enforcement of tobacco access laws through the use of underage buyers has proven to be a very simple and effective method for decreasing tobacco use among children. The enforcement of these laws is the responsibility of the health community and should not be left to the tobacco industry.

- 62 Dinges, N. G., & Duong-Tran, Q. (1993). Stressful life events and co-occurring depression, substance abuse and suicidality among American Indian and Alaska Native adolescents. *Culture, Medicine and Psychiatry*, 16, 487-502.

Depression, suicidality and substance abuse disorders are examined with special emphasis on the role of stressful life events in predicting severity and patterns of comorbidity among American Indian and Alaska Native adolescents in boarding school environments. The participants in this study were drawn from two different groups of respondents to mental health screening surveys comprising a total multiracial boarding school population of over 500 American Indian and Alaska Native adolescents. Data is analyzed on 124 adolescents from the two data collection periods who received a diagnosis of depressive disorder, and whose diagnostic outcomes could also be analyzed for an additional diagnosis of substance abuse and/or suicidality. They ranged in age from 14 to 18, with 48% male and 52% female. Approximately 70% of age 14 and 67% of age 15 adolescent were diagnosed with some type of comorbidity while 77%, 80%, and 83% respectively of 16, 17, and 18 year olds were similarly diagnosed. Depression and current suicide ideation also occur more frequently between 16-18 years of age than at 14-15 years of age, as does a three-way diagnosis of depression with alcohol and marijuana abuse or dependence. On the other hand, depression with current suicide ideation and a recent suicide attempt was more frequent among younger (14-15 year olds) than older adolescents (16-18 year olds). As expected, females had a higher percentage of depression-only diagnosis than males (29.2% vs. 18.6%). Females also had a greater number of comorbid diagnoses for depression with suicide attempt (9.2% vs. 5.0%) than males. By contrast, males had more frequent comorbid diagnosis of depression with alcohol and marijuana abuse or dependence than females (11.8% vs. 6.1%), and depression with current suicide ideation and alcohol and marijuana abuse or dependence (13.5% vs. 3.0%). Only females (4.6%) received a five-way diagnosis which included all the categories considered in this analysis.

The empirically derived stressful life events factors were used as the predictor variables. Accuracy of case classification for predicted group membership was 90.75% for depression with suicide ideation and 98.16% for depression with suicide attempt. Family/parent conflicts and Marital/pregnancy fears made the largest contribution to the discriminant function depression with suicide ideation. Accuracy of case classification for depression with marijuana abuse/dependence was 94.12%. For the 3-way combination of depression with alcohol and marijuana abuse/dependence was 94.01%. For the 3-way combination of depression with current suicide ideation and marijuana abuse/dependence accuracy of classification was 96.67%. Accuracy of case classification for the 4-way combination of depression with current suicide ideation and both alcohol and marijuana abuse dependence was 91.62%. The overall comorbidity rates for depression with substance abuse and suicidality in this boarding school population of Indian/Native youth is higher than reported for non-Native/Indian youth. It is perhaps the relatively low frequency of comorbid diagnosis with substance abuse or dependence without suicidality that is more remarkable. The 2-way diagnosis of depression with either alcohol or marijuana abuse/dependence (8.8%) and the 3-way diagnosis of depression with both alcohol and marijuana abuse/dependence (8.9%) account for only 17.7% of the comorbid diagnosis. Thus it is common to find the potentially far more lethal comorbidity of depression with current suicidal ideation or recent suicide attempt (27.3%), along with substance abuse or dependence (31.1%), which together account for 58.4% of cases. The high rates of comorbidity clearly indicate the severity of clinical conditions in a

boarding school setting, a result that may be explained in part by selection factors inherent in the ecology of mental health service delivery for Indian and Native youth. A very high percentage of students are referred to boarding schools because treatment resources for serious psychological dysfunctions are either inadequate or nonexistent in their home communities. The historical dimension of stressful life events is clearly indicated as an important theoretical issue for future research. Current models of stressful life events fail to take into account so-called "anomic" stressors which may be transmitted from generation to generation among minority populations. Poorly understood or assessed, such collective stressors may color the cognitive schemas of significant portions of tribal and village populations, and may in turn influence attributional processes that underlie depressive disorders. Current hopelessness theories of depression identify the diatheses of a depressogenic attributional style and depressogenic perception of control style. The influence of historical events on attributional style and control perceptions are easily detected in the narrative discourse of relations between American Indian and Alaska Native populations and the dominant white majority.

- 63 Doi, S. C., & DiLorenzo, T. M. (1993). **An evaluation of a tobacco use education-prevention program: A pilot study.** *Journal of Substance Abuse, 5*, 73-78.

A psychosocial primary prevention program for smoked and smokeless tobacco was presented to 77 grade 7 students at two schools in rural Central Missouri by high school students acting as peer leaders. Program intervention addressed parental, peer, and media influences on tobacco use, and taught refusal skills for resisting social pressures to smoke or chew tobacco. Sixty-nine students served as controls, but followup data could not be obtained. Posttest data was obtained for 66 students in the experimental condition. Program effectiveness was examined in terms of three variables: knowledge (basic knowledge about tobacco facts), refusal skills (degree of self-reported assertiveness in refusing to use tobacco), and attitude (positive and negative attitudes toward tobacco). These variables were assessed at pre- and posttests, and 1-month follow-up to program termination. It was found that students who received the intervention reported increased knowledge and improved resistance skills regarding the use of tobacco, as compared to a control group. Attitudes toward tobacco were initially negative and did not change over the course of the intervention in either group. In addition, 1-year follow-up was conducted on the intervention group, indicating that treatment gains were maintained.

- 64 Donnermeyer, J. F. (1993). **Rural youth usage of alcohol, marijuana, and "hard" drugs.** *International Journal of the Addictions, 28*(3), 249-255.

Following developmental theory, the relationships are examined between first and current use of alcohol, marijuana and "hard" drugs among a sample of 197 rural and small-town youth. Findings indicate that age of first use of alcohol predicts current use of alcohol. The same pattern occurs for marijuana and hard drugs. Age of first use of alcohol is also related to first use of marijuana, which in turn is related to first use of hard drugs. On the other hand, current use of hard drugs predicts current use of marijuana, which in turn predicts current use of alcohol.

- 65 Donnermeyer, J. F. (1992). **Use of alcohol, marijuana, and hard drugs by rural adolescents: A review of recent research.** *Drugs & Society, 7*, 31-75.

From a review of the research literature (65 research reports are summarized) on the use of alcohol, marijuana, and hard drugs among rural youth, it is apparent that usage rates among rural youth are approaching those of urban youth for most substances; in addition the causal factors of use among rural youth appear to be very similar to the factors predictive of use by urban youth. Alcohol use is the same for both rural and urban youth, and rural youth are closing the gap in regards to marijuana smoking. However, with the exception of inhalants and stimulants. Use of hard drugs was lower among rural youth. Variations in patterns of use based on such factors as rurality, farm versus nonfarm residence, the normative structure of a community, and cultural differences among Native American communities point the way to an intriguing set of questions concerning the relative facilitative or constraining effects of various residential environments. Some research suggests that community-level influences may be relatively more important among younger adolescents. If so, then rural-based research has the opportunity to recast developmental theory (which emphasizes the relationship between age of first use and current use) to account for community-level impact on the formative stages of alcohol, marijuana, and hard drug use.

- 66 DuRant, R. H., Rickert, V. I., Ashworth, C. S., Newman, C., & Slavens, G. (1993). **Use of multiple drugs among adolescents who use anabolic steroids.** *New England Journal of Medicine*, 328, 922-926.

Because adolescent users of anabolic steroids are concerned with increasing muscle size and strength, they may be unique among substance users and unlikely to use other drugs. Alternatively, if the factors that cause the use of anabolic steroids are similar to those associated with the use of other substances, adolescents who use anabolic steroids would be expected to report use of other drugs as well. We administered a questionnaire based on the 1989 Secondary School Health Risk Survey and the 1990 Youth Risk Behavior Survey of the Centers for Disease Control and Prevention to 1,881 students enrolled in compulsory health-science classes (mean [\pm SD] age, 14.9 \pm 1.0 years) in the Richmond County, Georgia school system. A higher percentage of boys (6.5%) than girls (1.9%, $P \leq 0.001$) reported using anabolic steroids without a doctor's prescription. Among ninth-grade students, 5.4% of boys and 1.5% of girls reported using anabolic steroids ($P \leq 0.001$). Among users of anabolic steroids, 25% reported sharing needles to inject drugs. The frequency of anabolic-steroid use was significantly ($P < 0.001$) associated with the frequency of use in the previous 30 days of cocaine ($r = 0.44$), injectable drugs, alcohol ($r = 0.25$), and smokeless tobacco ($r = 0.40$). On the basis of multiple regression analysis, the use of marijuana, shared needles, smokeless tobacco, and cocaine accounted for 33% of the variation in anabolic-steroid use among the 9th-grade students. In our study, adolescent users of anabolic steroids were likely to use other drugs as well, and many are sharing needles.

- 67 Eggert, L. L., & Herting, J. R. (1993). **Drug involvement among potential dropouts and "typical" youth.** *Journal of Drug Education*, 23(1), 31-55.

Drug involvement, conceptualized as drug-use frequency, drug access, drug-use control, and adverse use consequences, is described and compared among two randomly selected groups of students aged 14 to 19 years: 203 low-risk, typical high school students and 160 youths at high risk of school problems and dropout. High-risk youth, compared to low-risk youth and national statistics, endorsed a much greater breadth and depth of drug use, greater access to drugs, less drug use control, and greater adverse consequences due to use. A secondary analysis showed that low-risk users (experimenters) were similar to high-risk youth in their access to drugs and eroding drug use control, but showed low frequencies of drug use and negligible adverse use consequences. Measuring and exploring these four facets of drug involvement provided a robust picture of the adolescents' drug milieu and revealed differences in patterns of drug involvement that would not have been evident by looking purely at drug use frequency. Using a conception of drug involvement as a combination of drug use frequency, drug access, drug use control, and adverse consequences of use, significant differences were demonstrated—in prevalence, frequency, and patterns of drug involvement—between low-risk youth in general, low-risk users, and youth at-risk for school dropout. Of critical importance are further tests of this conceptualization of drug involvement on the one hand, and, on the other hand, a need to decrease drug involvement among all youth, but particularly among low-risk users (experimenters) and high-risk youth. These youth are at high risk for drug abuse and school dropout, and for doing damage to their health, their families, and their society.

- 68 Ellickson, P. L., Bell, R. M., & Harrison, E. R. (1993). **Changing adolescent propensities to use drugs: Results from Project ALERT.** *Health Education Quarterly*, 20(2), 227-242.

To consider whether successful drug prevention programs suppress the risk factors they were intended to modify, Project ALERT was evaluated among over 4,000 students in an experimental test including 30 diverse California and Oregon schools. Project ALERT is a school-based program for 7th and 8th graders which has been shown to curb both cigarette and marijuana use. The curriculum seeks to help young people develop both the motivation to avoid drugs and the skills they need to resist pro-drug pressures. Using regression analyses, the program's impact was examined on the intervening (cognitive) variables hypothesized to affect actual use: adolescent beliefs in their ability to resist, perceived consequences of use, normative perceptions about peer use and tolerance of drugs, and expectations of future use. The analysis depicts program effects for perceptions linked to each target substance (alcohol, cigarettes, and marijuana), across all students and for those at different levels of risk for future use. Results showed that the curriculum successfully dampened cognitive risk factors from each of the above categories for both range of beliefs associated with the propensity to use drugs. However, it had a limited impact on beliefs about alcohol, the most widely used and socially accepted of the three drugs. Implications for drug prevention programs and practitioners are discussed.

- 69 Ellickson, P. L., Bell, R. M., & McGuigan, K. (1993). Preventing adolescent drug use: Long-term results of a junior high program. *American Journal of Public Health, 83*(6), 856-861.

Although several studies have reported short-term gains for drug-use prevention programs targeted at young adolescents, few have assessed the long-term effects of such programs. Such information is essential for judging how long prevention benefits last. This paper reports results over a 6-year period for a multisite randomized trial that achieved reductions in drug use during the junior high school years. The 11-lesson curriculum, which was tested in 30 schools in eight highly diverse West Coast communities, focused on helping 7th- and 8th-grade students develop the motivation and skills to resist drugs. Schools were randomly assigned to treatment and control conditions. About 4,000 students were assessed in grade 7 and six times thereafter through grade 12. Program effects were adjusted for pretest covariates and school effects. Once the lessons stopped, the program's effects on drug use stopped. Effects on cognitive risk factors persisted for a longer time (many through grade 10), but were not sufficient to produce corresponding reductions in use. It is unlikely that early prevention gains can be maintained without additional prevention efforts during high school. Future research is needed to develop and test such efforts.

- 70 Ellickson, P. L., & Hays, R. D. (1992). On becoming involved with drugs: Modeling adolescent drug use over time. *Health Psychology, 11*(6), 377-385.

We tested a model of the process of becoming involved with drugs during junior high. The sample included 698 students from the control schools used in Project ALERT who were not using alcohol, cigarettes, or marijuana during Grade 7 (T1). The follow-up data points were 12 and 15 months later (T2 and T3). The final model, which predicted 72% of the variance in drug use and T3, provides support for hypotheses drawn from both social and cognitive theories. Weak familial and school attachments fostered use by increasing the likelihood of exposure to pro-drug social influences (drug use offers); weak bonds with school also directly affected cognitive motivations (lower resistance self-efficacy [RSE] and more positive outcome expectancies). In turn, social influences at T1 played a dominant role in initial use at T2, but cognitive motivations were also significant. At T3, prior use assumed the most prominent position. Drug-specific measures of RSE and expected use directly affected later use of that substance. The results indicate that both generic and drug-specific effects are needed to explain adolescent drug use.

- 71 Ellickson, P. L., Hays, R. D., & Bell, R. M. (1992). Stepping through the drug use sequence: Longitudinal scalogram analysis of initiation and regular use. *Journal of Abnormal Psychology, 101*(3), 441-51.

Using a new technique for tracing the sequence of use over time, this study examined the pattern of drug involvement among 4,145 students (72% White, 10% Asian, 8% Hispanic, 7% Black) at the 30 West Coast secondary schools participating in Project ALERT over the 4-year span from Grades 7-10, during the mid- to late-1980s. Weekly alcohol use followed marijuana use and preceded use of all other illicit drugs for Hispanic, White, and Black youth. However, it followed use of hard drugs for Asians. Weekly smoking formed a distinct stage between initial use of pills and other hard drugs for non-Hispanic Whites. Longitudinal scaling by ethnicity suggested that Asian, Black, and Hispanic students may follow different pathways than Whites. For Blacks, an alternative pathway in which increased involvement with cigarettes followed hard drug use fit the data just as well as the main model. For Asians, the predominant sequence placed regular smoking and drinking after initial use of pills and other hard drugs, with increased drinking last. For Hispanics, weekly cigarette use also tended to follow hard drug use. The findings support the view of regular alcohol use and smoking as separate stages in the sequence, and indicated that their position in the sequence may vary with ethnicity. No evidence was found that cocaine had become a gateway drug. However, the data provided some support for treating cocaine initiation as a separate stage that preceded the onset of hard drugs other than pills. The analysis also showed that increased involvement with legal drugs constituted an important step in the transition to hard drug use for most adolescents. The results underscored the importance of prevention efforts aimed at curbing the transition to regular use of alcohol and cigarettes, as well as their initial use. It is concluded that the present survey does not support the tailoring of prevention strategies to different ethnic groups: the differences observed emerged at later stages. The similarity in the gateway stages is consistent with findings that prevention programs targeted at gateway drugs gave similar effects across ethnic groups. Further research should attempt to separate the factors that only foster substance initiation from those that promote abuse.

- 72 Elliott, J. (1993, May). **Just say nonsense.** *Washington Monthly*, 5(5), 18-21.

Since the early eighties, Just Say No courses—classroom sessions, usually about a dozen, held over a few months in 6th, 7th, or 8th grade, sometimes supplemented by community and high school events—have quietly become commonplace. These programs have produced exorbitant claims of success. That, of course, sounds encouraging; the only problem is that it's not true. Perhaps the best that can be said of the Just Say No ideology is that it makes parents and teachers feel better. Responsible use seems like a much more promising approach, but the U.S. Department of Education demands a firm "no use" stance. Schools—the paying customers—ought to hold the Just Say No companies to the fire, demanding genuine evaluations before investing money in curricula that are just going to absorb valuable class time and whose results will only go up in smoke. At the same time, state education departments which are doling out drug education money need to make certain that the money is reaching the classroom and not financing, as it did in California, bus rides, ball games, and other boondoggies. "Just saying no" to ineffective educational gimmicks is one informed decision grown-ups ought to be making.

- 73 Elmquist, D. L., Morgan, D. P., & Bolds, P. K. (1992). **Alcohol and other drug use among adolescents with disabilities.** *International Journal of the Addictions*, 27(12), 1475-1483.

This study assessed the incidence rates of alcohol and other drug (AOD) use among a sample of five groups of secondary school students in a large suburban Utah school district: (a) nondisabled students ($n = 68$); (b) learning-disabled students ($n = 15$); (c) behaviorally-disordered/less aggressive students ($n = 12$); (d) behaviorally-disordered students ($n = 12$); and (e) behaviorally disordered students at a separate, self-contained school ($n = 13$). The learning-disabled, behaviorally-disordered/less aggressive, and nondisabled students reported similar AOD use rates. The behaviorally-disordered students reported higher usage of some substances, but the differences were not as dramatic as those of the behaviorally-disordered/self-contained group. These findings call for further research among adolescents with disabilities and for careful attention in the field of special education to alcohol and other drug use.

- 74 Escobedo, L. G., Marcus, S. E., Holtzman, D., & Giovino, G. A. (1993). **Sports participation, age at smoking initiation, and the risk of smoking among U.S. high school students.** *JAMA*, 269(11), 1391-1395.

To examine patterns of cigarette use, smoking initiation, and the relationship of sports participation and age at smoking initiation to regular and heavy smoking among adolescents, a survey was administered to a nationally representative sample of U.S. high school students. The survey measured the prevalence of smoking patterns, prevalence and incidence of smoking initiation, and prevalences and odds of regular and heavy smoking in relation to sports participation and age at smoking initiation. Some past smoking or experimentation with cigarettes was reported by 72% of the survey participants, and 32% reported smoking during the previous 30 days. Students who had participated in interscholastic sports were less likely to be regular or heavy smokers than were others who had not participated. Smoking initiation rates increased rapidly after age 10 and peaked at age 13 to 14. Students who began smoking at age 12 or younger were more likely to be regular and heavy smokers than were students who began smoking at older ages. These data suggest that smoking initiation at a young age can increase the risk of nicotine addiction during adolescence and that sports participation may influence smoking behavior. Interventions to prevent smoking should be available before age 12 to help combat the smoking epidemic among youth.

- 75 Evans, W. P., & Skager, R. (1992). **Academically successful drug users: An oxymoron?** *Journal of Drug Education*, 22(4), 353-365.

The present study examines substance use among academically successful students. The data were collected in two discrete anonymous surveys of 2,288 9th-grade and 2,653 11th-grade California students, and of 1,043 9th-grade and 862 11th-grade students from a large suburban county in the same state, both of which were performed for reports to the state's Attorney General. Over 70% of the academically successful students from both samples reported some type of drug use. These successful students were divided for comparison into three groups according to their involvement with drugs: Abstainers, Conventional Users, and High-risk Users. Of the 11th-graders, high risk users comprised 11% of the statewide sample, and 21% of the county sample. The analyses indicated that the negative association between drug use and academic achievement may be counterbalanced by mediating factors identified in the study. These factors included high "education aspiration," "parent educational level," and "emotional stability." The findings also suggest that certain attitudes or skills may permit adolescents to use drugs and limit their negative

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consequences. These successful students and their characteristics need to be better understood if prevention efforts are to fully address the impact of drug use on academic involvement.

- 76 Falk, J. M. (1992). **Adolescents' resource preferences in self-reported willingness to seek help or information on substance-abuse issues.** Ph.D. dissertation. Loyola University of Chicago, Chicago, IL). *Dissertation Abstracts International* 53(7): 3805-B.

This study examined the research question: To whom will adolescents turn should they encounter problems or questions concerning drugs or alcohol. This investigation studied how ethnicity, gender, and grade level influenced an adolescent's willingness to seek guidance from parents, school counselors or peers with drug and alcohol related problems or questions. A self rating survey was administered to various classrooms in the Chicago public school district. The survey targeted predominantly minority, low income, inner-city students who had been identified "at high risk" for substance abuse. The study sample consisted of 457 students enrolled in grades 7 through 12. The results suggests the following conclusions: (1) Hispanic females were the most likely to turn to their parents for help; (2) Irrespective of gender or ethnicity, adolescents enrolled in seventh through ninth grade were the most likely to report willingness to seek advice from school counselors. All adolescents expressed concern with counselor confidentiality, intrusive counseling practices, and counselor unavailability; (3) Black adolescents reported they would primarily turn to their peers for advice. Adolescent unwillingness to turn to parents or school counselors, may help to explain the persistence of substance abuse, despite school based and parental intervention efforts. The analyses indicate that in order to develop optimal drug prevention strategies, professionals need to first structure prevention programs by matching available resources with the preferences of those seeking help.

- 77 Farrell, A. D., Anchors, D. M., Danish, S. J., & Howard, C. W. (1992). **Risk factors for drug use in rural adolescents.** *Journal of Drug Education*, 22(4), 313-328.

A questionnaire battery assessing drug use and the presence/absence of twenty risk factors derived from a previous study of urban adolescents was administered to a sample of seventh graders ($N = 235$) in the public school system of a rural community. All but one of these risk factors were found to be significantly related to at least one category of drug use. In addition, a risk factor index based on a subset of ten risk factors was significantly associated with the prevalence and frequency of use for cigarettes, beer and wine, hard liquor, marijuana, and other drugs. These findings support the generalization of a risk factor approach to predicting drug use, and underscore the need for increased prevention and research efforts directed at rural adolescents.

- 78 Farrell, A. D., & Danish, S. J. (1993). **Peer drug associations and emotional restraint: Causes or consequences of adolescents' drug use?** *Journal of Consulting and Clinical Psychology*, 61(2), 327-334.

A 3-wave longitudinal design was used to examine the relationships among emotional restraint, peer drug associates, and gateway drug use in a sample of 1,256 predominately Black 7th and 8th grade students at eight middle schools in a large southeastern city. Data was collected during the years of 1988-1991. Structural equation modeling was used to compare 3 models: (a) One model viewed drug use as a consequence of emotional restraint and peer variables; (b) one viewed drug use as a cause of restraint and peer variables; and (c) one included reciprocal effects. All 3 models fit the data fairly well. However, the reciprocal model fit the data significantly better than either of the others. Within this model, low emotional restraint was significantly related to subsequent increases in gateway drug use among boys. In contrast, peer drug models and peer pressure were not related to subsequent changes in gateway drug use. Rather, the longitudinal analyses showed that changes in the frequency of drug use had preceded changes in peer variables rather than vice versa. Changes in peer drug models were predicted by previous levels of gateway drug use.

- 79 Farrell, A. D., Danish, S. J., & Howard, C. W. (1992). **Relationship between drug use and other problem behaviors in urban adolescents.** *Journal of Consulting and Clinical Psychology*, 60(5), 705-12.

Problem behavior theory, which states that a variety of problem behaviors constitute a behavioral syndrome in normal adolescents was supported in a survey of students in grades 7 and 9 in the public schools of a large

southeastern city. Relationships among 5 adolescent problem behaviors (cigarette use, alcohol use, marijuana use, delinquency, and sexual intercourse) were examined. The sample included 7th-grade boys ($n = 556$) and girls ($n = 715$), and 9th-grade boys ($n = 481$) and girls ($n = 485$), the majority of whom were Black and from low-income families. Measures of problem behavior frequency were positively correlated with each other and negatively correlated with several measures of conventional behavior. Confirmatory factor analyses replicated findings of previous studies that a single common factor underlies adolescent problem behaviors.

- 80 Farrell, A. D., Danish, S. J., & Howard, C. W. (1992). **Risk factors for drug use in urban adolescents: Identification and cross-validation.** *American Journal of Community Psychology, 20*(3), 263-86.

The relationship was examined between 26 dichotomous risk factors and drug use in derivation ($n = 1,352$) and cross-validation ($n = 1,309$) samples of 7th-graders in the public school system of a large southeastern city. The majority of students was African American, many came from low-income, single parent families. A total of 20 risk factors representing a variety of variables was significantly related to at least one category of drug use in both samples. Regression analyses identified a subset of 11 risk factors with minimum overlap. The simple sum of these 11 risk factors was significantly associated with prevalence of use for cigarettes, beer and wine, hard liquor, marijuana, and other drugs. The total number of risk factors also showed a curvilinear relationship with the frequency of 30-day use for each category of drug. Theoretical and practical implications of these findings are discussed.

- 81 Farrell, A. D., Howard, C. W., Danish, S. J., Smith, A. F., Mash, J. M., & Stovall, K. L. (1992). **Athletes coaching teens for substance abuse prevention: Alcohol and other drug use and risk factors in urban middle school students.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 13-30). (CSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

ACT is an AOD use prevention program being implemented in the Richmond City Public School System. The students served by the program are predominantly ethnic/racial youth from single-parent-headed, economically disadvantaged families. Many of these youth live in neighborhoods where the rates of AOD use and crime are very high. Data collected as part of the evaluation of the ACT program suggested that these youth were at high risk for AOD use. This risk was seen most clearly in the findings related to youth perceptions of their environment. Whereas a majority of the study sample reported that their friends disapproved or strongly disapproved of students their age drinking alcohol or using other drugs, a fairly large percentage reported that their friends did not care and a small percentage reported that their friends approved of AOD use. Perceptions of the incidence of experimental and regular use of AODs among students at their school and among their friends were high for a fairly large percentage of the study population. In terms of direct pressure, more than 25% of the youth had been offered certain drugs and more than 15% had felt some pressure from their friends to use drugs. These figures were even higher for alcohol.

- 82 Farrow, J. A., & Schwartz, R. H. (1992). **Adolescent drug and alcohol usage: A comparison of urban and suburban pediatric practices.** *Journal of the National Medical Association, 84*(5), 409-13.

Few pediatric practice-based drug and alcohol surveys have been conducted with adolescent patients. This study reports on similarities and differences in adolescent drug and alcohol use between urban (95% Black) pediatric practices and a suburban (89% White) pediatric practice. While there were greater similarities between patient substance use and reported problems than differences, a number of significant differences emerged. White suburban youth were heavier users of tobacco products, alcohol, and inhalants, and experienced more difficulties with blackouts, family conflict, school absence, suicidal ideation, and loss of peer relationships. Other racial/ethnic and practice site differences are discussed. This study highlights characteristics of youth drug abuse in the private pediatric practice setting and implications for the pediatrician in caring for adolescents.

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- 83 Fay, J. (1992). **Prevention resource guide: Alcohol and other drug related periodicals.** (DHHS Publication No. ADM 92-1978).

A concise annotated bibliography of journals, newsletters, and other publications related to the alcohol and other drug prevention field helps prevention specialists, researchers, librarians, and students track down relevant information and keep on top of the latest developments in this continually changing field.

- 84 Felix-Ortiz, M., & Newcomb, M. D. (1992). **Risk and protective factors for drug use among Latino and White adolescents.** *Hispanic Journal of Behavioral Sciences, 14*(3), 291-309.

A model of drug use that incorporated many potential risk and protective factors and tested both direct and buffering influences on drug involvement was evaluated with data on 677 Los Angeles (Grade 11, 12, and posthigh school) Latino, Latina, and White teenagers, collected in the fifth year of a longitudinal study. The sample was 34% male and 66% female—this gender imbalance did not represent differential attrition, but had been a feature of the sample since year 1. Fourteen factors related to drug use were selected and assigned empirically to either a multiple protective (PFI) or risk factor (RFI) index. Bivariate and multiple regression analyses were used to examine the relationships of the RFI, PFI, and their interaction on frequency and/or quantity of cigarette, alcohol, cannabis, cocaine, and hard drug use. Both indexes and their interaction contributed significantly to frequency and quantity of drug use among all groups. As PFI increased, alcohol use decreased among Latino males and White females. RFI was more strongly associated than PFI with all drug use, and cannabis use in particular. Interaction of RFI and PFI predicted several types of drug use, but more so for Whites than for Latinos. As RFI increased, protective factors became less effective on frequency of hard drug use for both Whites and Latinos of both genders, on frequency of cocaine use among both Latinas and White males, and on quantity of cigarette use among White females. While the magnitude of interaction effects tended to be largest among Latinas, the number of significant effects was largest for Whites. And while there was no difference in PFI nor RFI by race or gender, Whites had a higher index of cocaine use frequency. The small number of Latino adolescents in the sample make definite conclusions difficult, and may explain the lower number of significant interaction effects relative to Whites.

- 85 Fisher, M. (1992). **Parents' views of adolescent health issues.** *Pediatrics, 90*(3), 335-41.

To determine how important the parents of teenagers consider adolescent health issues to be and the kind of involvement they would like from their schools and physicians, a questionnaire was sent to 1,090 families with children attending two public high schools in a suburban community. The 438 parents who completed the questionnaire (40% response rate) indicated that their adolescents had a mean age of 16.2 years, 52% were male, 54% were in grades 11 and 12, and 70% received regular care from a pediatrician. Most parents considered substance use, sexuality, mental health issues, nutritional concerns, and general medical issues to be issues requiring attention nationally; many considered these issues to require attention locally; fewer considered these issues to require attention for their teenager's friends; and only some indicated these issues require attention for their own teenagers. More than 95% of respondents said parents should discuss these topics with their teenagers, more than 80% said they themselves did, and more than 85% said they wanted these issues discussed with their adolescents in school. Approximately three quarters of parents said that they would bring their adolescent to their regular doctor for management of these issues, expected that their physician would be comfortable with such care, and wanted their doctor to discuss these issues with their teenagers. Most, however, thought that their teenagers would tell them if they needed help for these problems (including substance use and sexuality-related issues), approximately half believed it would be okay for the doctor to manage these problems confidentially, and fewer than 40% said they would be willing to pay higher fees necessary for the extra time required to manage these issues. Although some of these parents may have underestimated the health care needs for their adolescents, this study indicates that most were interested in having involvement from their physicians and schools and were generally aware of the importance of these issues.

- 86 Fisher, M., Kupferman, L. B., & Lesser, M. (1992). **Substance use in a school-based clinic population: Use of the randomized response technique to estimate prevalence.** *Journal of Adolescent Health, 13*(4), 281-5.

Students attending school-based clinics acknowledged only minimal involvement with drug or alcohol use. In order to explain this unanticipated finding, we used a statistical method called randomized response to study adolescents in one school-based clinic. The sample consisted of 133 students (57% female; 75% Black, 20% Hispanic, 5% other; and 58% grades 9-10, 42% grades 11-12). Using both lifetime and 30-day prevalence rates, these students revealed more cigarette smoking and alcohol use on randomized response than they had on questionnaires completed earlier the same academic year, minimal involvement with either marijuana or cocaine use by either method, and a similar amount of sexual activity by both methods. This study demonstrates that randomized response can be a useful method to generate more truthful group responses from adolescents.

- 87 Fleming, C. M. (1992). **American Indians and Alaska Natives: Changing societies past and present.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 147-171). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

Like American society as a whole, contemporary American Indian and Alaska Native communities are facing a host of life-threatening ills, including racism, poverty, acquired immunodeficiency syndrome, child abuse, and alcohol and other drug use. Many of these threats have resulted from centuries of change forced on Indian and Native societies. For many people in these societies, such change has meant tremendous losses of culture, dignity, and life. In an attempt to depart from lifestyles and situations that compromise well-being, Indians and natives have begun to identify for themselves culturally congruent values and behaviors that enhance life for the individual, the family, and the community. New programs seeking to change individual and collective attitudes and behaviors are being developed and implemented in "Indian country." And with the lives of individuals, families, and tribes at stake, Indians and Natives have welcomed the evaluation of these programs. However, evaluation approaches that do not consider the history and culture of each Indian and Native group may impede progress toward the goals that these communities so urgently seek.

- 88 Ford, T. D., & Sarvela, P. D. (1992). **Adolescent substance prevention education network: A rural-based pilot program for preventing alcohol and other drug use among pregnant adolescents.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 31-42). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

Rural youth who have unique disadvantages as a result of their isolation and attendant transportation barriers. A program was established to reach out to pregnant teenagers, only half of whom were in school. AOD use was found to be extensive among this sample, particularly in the last 3 months of pregnancy.

- 89 Forgays, D. K., Forgays, D. G., Wrzesniewski, K., & Bonaiuto, P. (1992). **Alcohol use and personality relationships in U.S. and Polish adolescents.** *Journal of Substance Abuse, 4*(4), 393-402.

To obtain information which could be useful to the design of intervention and prevention programs for adolescent alcohol users and potential users, personality and alcohol use data were collected from over 300 Polish and U.S. 15-year-olds. Thirty percent of these subjects were already drinking on a more or less consistent basis. Users were angry, nonconforming, and impulsive-antisocial persons in both countries. Future research and potential intervention and prevention strategies are discussed. Polish adolescents were 103 boys and 50 girls whose mean age was 15.69 years (SD = 0.76); U.S. adolescents were 51 boys and 104 girls whose mean age was 15.08 years (SD = 0.89). The Polish students were recruited from a required social studies class in three high schools in northeast Poland; the U.S. students were recruited from a required class in health in five high schools in Vermont and one in New Hampshire. All schools were located in areas that, although not rural, were not population centers. Our

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central focus in this study was on personality differences associated with drinking status; we found significant effects for Trait Anger, for Psychoticism, and for the Lie scale.

Drinkers were higher than experimental drinkers and nondrinkers on Anger and Psychoticism and lower on the Lie scale. In addition, we found significant effects for gender and for country. For example, girls were higher than boys on Trait Anxiety, Extroversion, Neuroticism, Lie, and on the Achievement subscale, whereas boys were higher than girls on the Competitiveness subscale. The U.S. respondents had significantly higher scores than Poles on Trait Anger, Extroversion, Neuroticism, Type A, Competitiveness, and Achievement, whereas Poles were significantly higher on the Lie scale. The Drinking by Country interaction was significant for Trait Anger, and for Trait Curiosity. The first reflects higher anger scores for U.S. drinkers and nondrinkers over all Polish drinking groups except for U.S. experimental drinkers who were higher than Polish experimental and nondrinkers only. The second reflects U.S. experimental drinkers showing higher Curiosity scores than Polish experimental and nondrinkers. The Drinking by Gender interaction was significant for Trait Curiosity, Psychoticism, Type A global score, and for the Achievement subscale. These largely reflect male experimental drinkers being higher than virtually all other five groupings on Curiosity, male and female drinkers being higher than nondrinkers on Psychoticism, and female drinkers being higher than several of the remaining groupings on the global Type A measure and the Achievement subscale. The Gender by Country interaction was significant for Trait Anger, the Lie scale, and the Type A Competitiveness subscale. The Trait Anger and Competitive findings reflect U.S. boys being higher than the other three groups: U.S. girls, Polish boys, and Polish girls. The Lie finding reflects girls being higher than boys in both countries, but the gender difference is larger for Poles. Finally, the Drinking by Gender by Country interaction was significant for the Lie scale and the Type A Achievement subscale. The Lie finding reflects Polish male drinkers low score, which is equal to all U.S. groups and all of these are lower than the remaining five Polish groups. The Achievement finding reflects U.S. female drinkers scoring higher than most other subgroupings.

Finding a reasonably consistent personality pattern for adolescent drinkers may offer the possibility of using this information to identify high-risk adolescents to provide them with an intervention program which could be designed to deal with their emotional distress as well as their drinking behavior, if the latter has already occurred. It also seems clear, that, because 30% of these adolescents are drinking on a consistent basis by our definition, we must extend our analyses to still younger subjects in order to contribute information for the development of prevention programs for these children. In summary, evidence was found for personality relationships with alcohol use in the 15-year-old adolescent. Alcohol users scored high on measures of anger, nonconformity, and impulsivity. As such, they would appear to be emotionally distressed persons, and female drinkers may be even more extreme in this regard. These findings hold for both Polish and U.S. adolescents, and they may be useful in the identification of high-risk candidates for alcohol intervention programs for adolescents. They should, however, be viewed somewhat tentatively, especially because we had no self-reported heavy or problem alcohol users among our subject samples, which may permit the inclusion of heavier drinking subjects. Additionally, similar protocols should be used with still younger children if appropriate prevention information is to be developed.

- 90 Forster Jean L., Hourigan, M. E., & Kelder, S. (1992). Locking devices on cigarette vending machines: Evaluation of a city ordinance. *American Journal of Public Health, 82*(9), 1217-1219.

Policy-makers, researchers, and citizens are beginning to recognize the need to limit minors' access to tobacco by restricting the sale of cigarettes through vending machines. One policy alternative that has been proposed by the tobacco industry is a requirement that vending machines be fitted with electronic locking devices. In St. Paul, Minnesota, a random sample of vending machine locations was selected for cigarette purchase attempts conducted before implementation and at 3 and 12 months postimplementation. The rate of noncompliance by merchants was 34% after 3 months and 30% after 1 year. Our results suggest that cigarette vending machine locking devices may not be as effective as vending machine bans and require additional enforcement to ensure compliance with the law.

- 91 Frank, A., Green, V., & McNeil, D. W. (1993). Adolescent substance users: Problem-solving abilities. *Journal of Substance Abuse, 5*, 85-92.

Cognitive ability and cognitive egocentrism were examined as predictors of problem-solving ability in adolescent substance users in a vocational training program. Subjects were 56 mid- to late adolescents (41 males and 15 females). Of these, 19 were White, 34 were Black, 1 was Hispanic, and 2 were Asian-American. Mean age was 18.1. During a consecutive 5-month time period in 1987, all adolescents who voluntarily entered an Oklahoma residential vocational program were screened during their orientation period as to their psychoactive substance use. The first 56 subjects who met either the criteria for the substance-abusing group (24 boys and 4 girls) or the criteria

for the minimal substance-using group (17 boys and 11 girls) were enrolled in the study. No significant group differences were found for the demographic variables of race, age, grade, or mother's or father's highest grade completed. A semistructured interview was individually administered to assess quantity and frequency of lifetime alcohol and other drug use, as well as concomitant psychosocial consequences. Subject responses in the interview led to group placement; interview data were not subjected to statistical analyses. Three abstract reasoning measures (proverbs, puns, and word problems) were selected based upon their relevance to decision making, appropriateness for this age group, and ease of use. These findings supported the hypothesis that adolescents' cognitive ability and cognitive egocentrism account for a significant amount of the variance in the problem-solving outcome variables. Neither gender nor substance use severity were significant predictors. The socioeconomically disadvantaged adolescent psychoactive substance abusers and minimal users who were studied are at high risk for exhibiting problem behaviors. The lack of group differences in the dependent measures may be due to the nature of the groups studied. Perhaps neither group of adolescents has the experience and/or skills necessary to engage in effective problem solving as measured in this study. The design of this study, however, does not allow for an assessment of whether these substance-using adolescents were deficient in their problem-solving abilities relative to other populations described in the literature. Future research might address this question, as well as the question of whether any developmental delay existed prior to substance use, or whether a deficit occurred as a result of substance use.

- 92 Friedman, A. S., & Utada, A. T. (1992). **Effects of two group interaction models on substance-using adjudicated adolescent males.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 106-117.

An early intervention program was conducted in which clients were randomly assigned to one of two intervention plans: an adaptation of the Botvin Life Skills Training (LST) model, or a combined program of an Anti-Violence (AV) model and a Values Clarification (VC) model. Eighty-four student participants identified as substance users participated in the demonstration and in evaluation procedures to determine program effectiveness. Sixty-two completed the program and were evaluated at postintervention. Intervention effects were determined for the total sample in addition to between-group comparative analyses. Several improvements in behavior and attitudes were statistically significant for the entire sample. Individually, the values clarification, antiviolence intervention combination (VC/AV) fared better than the Botvin Life Skills Training (LST) program, accounting for all significant results. The amount of improvement that occurred from pretreatment to posttreatment was statistically significant.

- 93 Gantner, A. B., Graham, J. R., & Archer, R. A. (1992). **Usefulness of the MAC scale in differentiating adolescents in normal, psychiatric, and substance abuse settings.** *Psychological Assessment*, 4(2), 133-137.

Discriminant function analyses were analyzed on the MacAndrew (MAC) scale scores of 443 adolescents from 3 different samples (residential substance abusers, psychiatric inpatients, and high school students). Results indicated that the highest degree of discrimination occurred between substance abusers and normals. The considerable overlap observed in the MAC scores of substance abusers and psychiatric inpatients suggests that the MAC may be sensitive to characteristics common to both groups. Such characteristics may include high sensation seeking and delinquent-prone activity.

- 94 Gensheimer, L. K., Ayers, T. S., & Roosa, M. W. (1993). **School-based preventive interventions for at-risk populations: Practical and ethical issues.** *Evaluation and Program Planning*, 16, 159-167.

Schools have a long history of serving as sites for prevention efforts. However, many practical and ethical difficulties still surround the conduction of research within these settings. Such issues are particularly salient when prevention efforts are directed at high-risk children, a population that poses unique concerns for researchers. These concerns are addressed within the context of the experiences of the researchers' implementation and empirical evaluation of a school-based prevention program for elementary-aged children of alcoholics who self-selected into the intervention. Practical issues of gaining entry into the school system and acceptance and cooperation from school personnel are presented. Ethical issues of parental consent, voluntary nature of participation, and confidentiality are

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discussed within the context of at-risk children. Suggestions are offered for preventionists seeking to work in schools, and issues warranting further consideration among experts in the field are discussed.

- 95 **Gilbert, M. B. (1993). The use of cognitive and affective measures to evaluate early intervention alcohol/drug education programs.** *Journal of Alcohol and Drug Education*, 38(3), 89-104.

Early Intervention Alcohol/Drug Education Programs were developed by a community agency to prevent and eliminate alcohol/drug use in secondary-school pupils. The early intervention program was provided to two disparate groups in central Arkansas: youth mandated into the program by their school or the juvenile courts, who had a history of school or family problems; and a general sample of 7th-grade students. Cognitive and affective measures were chosen to gather a full range of data. Subsequent data analyses were performed to determine the suitability of the instrumentation and to determine program outcomes. Analyses of the data revealed that significant growth occurred in knowledge, coupled with limited proficiency of the concepts which were taught in the program, for the total sample; no data is presented on differences between the two groups. Recommendations were made to modify the cognitive instrument, use only one affective instrument, and test for predictive validity of a measure of self concept.

- 96 **Gilchrist, L. D., Gillmore, M. R., & Lohr, M. J. (1992). Drug use among pregnant adolescents.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 351-363). Gaithersburg, MD: Aspen Publishers.

Available knowledge is reviewed on substance use among sexually active adolescent women. Early data is reported from a longitudinal study in progress on drug use before and during pregnancy in adolescence to support the contention that these young women constitute a special high-risk group. The study indicates that adolescents often stop or reduce their drug use when they become pregnant. This is considered good news and this concern for the well-being of their unborn children could be used to help adolescent mothers continue this trend after the children are born.

- 97 **Gillmore, M. R., Butler, S. S., Lohr, M. J., & Gilchrist, L. (1992). Substance use and other factors associated with risky sexual behavior among pregnant adolescents.** *Family Planning Perspectives*, 24(6), 255-61, 268.

A study of the relationship between substance use and risky sexual behavior was conducted among 241 unmarried pregnant adolescents aged 17 and younger who lived in a metropolitan area in the Northwest. The respondents had comparable or higher lifetime use rates for all substances than did women in a national sample of high school seniors, even though the pregnant adolescents were younger. Nearly all (94%) had used alcohol, 78% marijuana, 30% cocaine and 30% stimulants, compared with 92%, 48%, 14% and 23%, respectively, among women in the national sample. Among the pregnant adolescents, 84% had had more than one sexual partner, 39% had had a sexually transmitted disease and 60% had used contraceptives during less than half of their sexual encounters. At the bivariate level, use of cigarettes and alcohol in general and use of alcohol and drugs during sex were positively associated with risky sexual behavior. However, when other characteristics associated with risky sexual behavior—family bonding, parental monitoring, commitment to conventional values, peer associations, self-esteem and delinquent activities—were included in the multivariate analysis, the effect of substance use disappeared.

- 98 **Glider, P., Kressler, H., & McGrew, G. (1992). Prevention and early intervention through peer support retreats.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 174-185). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

An intensive retreat model was evaluated with a focus on skills training to resist peer, parental, and societal pressures to use drugs. The retreat encouraged open discussion of problems and concerns about peers and families. The results

indicated reductions in the use of AODs and increases in self-esteem. This intensive retreat model has the advantage of not conflicting with normal school scheduling and of providing for in-depth training without interruption.

- 99 Gold, M. A., & Gladstein, J. (1993). **Substance use among adolescents with diabetes mellitus: Preliminary findings.** *Journal of Adolescent Health, 14*, 80-84.

Alcohol and drug use frequency was assessed by means of an anonymous, self-administered questionnaire in 79 diabetic adolescents who attended a diabetic sleep-away camp. More than half of the participants reported using tobacco or alcohol at least once and 12%-25% reported greater than five times use in their lifetime. The overall frequency of drug and alcohol use was less than the general adolescent population. A modified Michigan Alcohol Screening Test (MAST) was used to evaluate abnormal drinking patterns, and 40%-50% of 12- and 16-year-old campers had an abnormal score, indicating that almost one-quarter of diabetic teens drink dangerously. There was a high correlation between campers who use drugs or alcohol and a positive family history of alcohol or substance abuse. Few campers perceived alcohol or drug use to affect their diabetic control, and the majority believed their control to be good to excellent, thus demonstrating the impact of denial in diabetic adolescent substance use. Adolescent diabetic assessments should include a psychosocial history, with emphasis on patterns of substance use, family substance abuse, and use of the MAST to identify high-risk individuals.

- 100 Goldman, M. V. (1992). **Meta-analysis of selected adolescent alcohol education studies.** Ph.D. dissertation. University of Tennessee, Knoxville, TN). *Dissertation Abstracts International 52*(9): 726-A-727-A.

A meta-analysis was conducted to systematically evaluate, quantify and analyze selected adolescent alcohol education studies in order to determine their overall effects on alcohol knowledge, attitudes, use, interpersonal and affective skills. A secondary analysis was conducted in order to identify those strategies that have been most effective. A study of the various program characteristics and their relationship to study outcomes was also conducted. Alcohol education studies conducted since 1984 were located through computer database searches, manual searches of selected drug education journals and dissertation abstracts. In addition, letters were written to drug education researchers and the bibliographies of identified articles were also used. In order to be included in the analysis, studies were required to (a) have quantitative outcomes, (b) include a control or comparison group, (c) include a target grade level between 6 and 12, and (d) have primary prevention as the goal. A total of 99 studies were examined, 20 of which met the criteria for selection and were included in the analysis. An effect-size total was calculated for each study. These totals were then averaged in order to determine the overall effects of the studies included in the analysis. Effect sizes for five treatment modalities (knowledge, affective, peer, psychomotor/skill, and combined) were also calculated. Total effect sizes ranged from -0.34 to 1.18 with an average effect size of 0.25. A lack of data within modalities resulted in limited comparisons. No differences in the effectiveness of the various treatment modalities were found.

- 101 Goldstein, M. B., & Engwall, D. B. (1992). **The politics of prevention: Changing definitions of substance use/abuse.** *Journal of Health & Social Policy, 3*(3), 69-83.

A shift is discussed in the language used by the Reagan and Bush administrations in the fight against youthful drug abuse. This shift reflects a change in the 'moral climate' regarding drug use and in the reconceptualization of the appropriate way to confront the issue—the 'just say no' philosophy. A sociological overview is given of the emergence of adolescent drug use as a major social problem. An examination of government-sponsored literature on drug use produced over a 10-yr period documents the changes in conceptual focus which have occurred. Potential negative consequences of these changes for education are considered.

- 102 Gorman, D. M. (1992). **Invited review: Using theory and basic research to target primary prevention programs: Recent developments and future prospects.** *Alcohol & Alcoholism, 27*(6), 583-594.

Within the field of primary prevention, there have been recent attempts to use theory and basic research to develop intervention programs. Four recent large scale studies (Project SMART, Project ALERT, the LST Program, and the Midwestern Prevention Program) based upon the dominant theoretical perspective within this field—the social influences model—are reviewed. It is argued that the results of such evaluations suggest that a "universal"

prevention strategy (i.e., one aimed in an undifferentiated manner at all individuals within a given population) is out of touch with our current knowledge concerning the etiological processes underlying substance use and misuse. As an alternative, it is suggested that prevention programs be developed according to a number of "specific" strategies (i.e., ones targeted at vulnerable subgroups within larger populations). These strategies would be based on an understanding of the complexities of the process that influence the etiology of problem use, and would be sensitive to the specific requirements of subpopulations, which would be obscured by global categories such as "high-risk."

- 103 Gottlieb, A., Pope, S. K., Rickert, V. I., & Hardin, B. H. (1992). **Patterns of smokeless tobacco use by young adolescents.** *Pediatrics*, 91(1), 75-78.

The use of smokeless tobacco products by adolescents has reportedly increased. The purpose of this study was to examine the use of smokeless tobacco by young adolescents across geographic locations and to look at patterns of use and variables associated with continued use beyond experimentation. Participants were 2,018 Arkansas students in 6th through 9th grades. Forty-five percent were male; and 76% were White, and 23% Black. Use of smokeless tobacco products was reported by 12% of the total population, and 25% reported smoking. Smokeless tobacco use was associated with cigarette smoking, alcohol use, and parental substance abuse. Those reporting alcohol use were more than four times more likely to be users of smokeless tobacco than nondrinkers. We found increased age, being male, being White, smoking, drinking, perceived effects of smokeless tobacco use, and friends' smoking behavior to be significantly associated with continued use beyond experimentation. Smokeless tobacco use was reportedly greater in rural areas. Adolescents who reported initiating use between 6 and 8 years of age were using on a more frequent basis than those who had initiated use when older. This study demonstrated the need for targeting elementary schools for educational interventions aimed at reducing smokeless tobacco use.

- 104 Grace, C. A. (1992). **Practical considerations for program professionals and evaluators working with African-American communities.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 5-74). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

Many cultural and historical factors distinguish African Americans from the rest of American society. These factors, along with social, political and economic realities, significantly influence alcohol and other drug (AOD) use patterns in African-American communities. However, few training programs provide developing health professionals with adequate information about Black culture and history or about the relevance of such cultural factors to the role and responsibilities of the program evaluator. This chapter explores the significance of ethnic identity and culturally defined attitudes for understanding cocultural dynamics in AOD use/misuse prevention programs, and discusses how culture and race influence the various phases, levels, and tasks of program evaluation. As a complement to the preceding chapter, which provides a detailed orientation to African-American culture, this chapter translates theory into practical recommendations for program administrations and evaluators working with African-American communities.

- 105 Greenwood, P. W. (1992). **Substance abuse problems among high-risk youth and potential interventions. Special Issue: Drugs and crime.** *Crime & Delinquency*, 38(4), 444-458.

Although drug use among teenagers has declined significantly over the past decade, adolescents raised in impoverished urban communities continue to be at high risk for involvement in drug use and drug sales and for serious delinquency. Such youth often exhibit behavioral problems at school, associate with delinquent peers, have inadequate supervision at home, and are typically not helped by regular school-based drug resistance training programs. Findings from recent longitudinal studies and interactional theory suggest that preventive interventions with such youth must address a wide array of problems and service needs. One of the critical problems facing any program intended to serve such youth is getting them involved.

- 106 Gross, J., & McCaul, M. E. (1992). **An evaluation of a psychoeducational and substance abuse risk reduction intervention for children of substance abusers.** *Journal of Community Psychology* (OSAP special issue: Programs for change: Office for Substance Abuse Prevention demonstration models), 75-87.

Using a social support and social skills-building model of drug abuse prevention, the present study sought to test the efficacy of a 13-week intervention with urban adolescent Children of Substance Abusers (COSAs) compared to a group of mostly Black Baltimore youth at risk for school dropout. The program was designed to serve urban, minority, public-school children of substance-abusing parents. The respondent pool of 281 students included 223 with Positive Family History for parental substance abuse (FHP), 108 participated in the posttest, and 35 in the followup data collection for outcome analysis. At posttest and at 1-year follow-up there was little evidence to support the effectiveness of the intervention for reducing substance abuse risk factors.

- 107 Haemmerlie, F. M., Merz, C. J., & Nelson, S. B. (1992). **College vs. junior high school students' knowledge of alcohol as a teratogen.** *Psychological Reports*, 71(3 part 1), 809-810.

This study assessed knowledge possessed by male and female junior high school and college students ($N = 422$) about the teratogenic effects of alcohol. Although most students were aware that alcohol is a teratogenic substance, they demonstrated little knowledge of the nature and timing of possible specific negative effects.

- 108 Hall, P. A., & Reyes, M. B. (1992). **Evaluation of alcohol and other drug use prevention programs with Mexican-American youth.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 86-94). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

Noting the lack of data and models for guiding the development of prevention programs for Hispanics, the problems of Hispanic youth are placed in historical and multicultural contexts. The interaction of those problems with the problems of adolescent development is particularly important for thinking about the needs of Hispanics but the issues are relevant to planning for any ethnic/racial population.

- 109 Hallard, L. (1992). *Prevention resource guide: Curriculum.* (DHHS Publication No. ADM 92-1973).

This resource guide contains a collection of effective AOD prevention curricula designed for grades K-12. Teachers and prevention specialists will appreciate the variety of curricula described, the timely research abstracts related to the topic, and the listing of groups, organizations, and programs included for additional information.

- 110 Hansen, W. B. (1992). **School-based substance abuse prevention: A review of the state of the art in curriculum, 1980-1990.** *Health Education Research*, 7(3), 403-430.

Substance use prevention studies published between 1980 and 1990 are reviewed for content, methodology and behavioral outcomes. Studies were classified based on the inclusion of 12 content areas: Information, Decision Making, Pledges, Values Clarification, Goal Setting, Stress Management, Self-Esteem, Resistance Skills Training, Life Skills, Training, Norm Setting, Assistance and Alternatives. Six groups of programs (Information/Values Clarification, Affective Education, Social Influence, Comprehensive, Alternatives and Incomplete programs) are identified. Reports are analyzed for two major threats to validity, selection bias and statistical power. Program groups generally have similar selection biases but have important differences in statistical power. Comprehensive and Social Influence programs were found to be most successful in preventing the onset of substance use.

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- 111 Harmon, M. A. (1993). **Reducing the risk of drug involvement among early adolescents: An evaluation of Drug Abuse Resistance Education (DARE).** *Evaluation Review*, 17(2), 221-239.

The effectiveness of the DARE (Drug Abuse Resistance Education) program in Charleston County, South Carolina was evaluated by comparing 341 grade 5 DARE students to 367 non-DARE students. Both pre- and posttest data were collected for 295 students in the experimental group, and 307 in the control group. Attempts were made to avoid serious methodological flaws in earlier DARE evaluations. Pretest data showed that the DARE students had significantly more whites and females than the control group. Three of the outcome measures also showed significant differences at pretest: DARE students had a greater prevalence of past-year cigarette smoking, and lower measures of school attachment and belief in prosocial norms, than did the controls. Analyses at posttest controlled for pretest differences, and significant differences were found in the predicted direction on six measures: alcohol use in the previous year, belief in prosocial norms, association with drug-using peers, positive peer association, attitudes against substance use, and assertiveness. No differences were found on cigarette, tobacco, or marijuana use in the last year, frequency of any drug use in the past month, attitudes about police, coping strategies, attachment and commitment to school, rebellious behavior, or self-esteem.

- 112 Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). **Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention.** *Psychological Bulletin*, 112(1), 64-105.

It is suggested that the most promising route to effective strategies for the prevention of adolescent alcohol and other drug problems is through a risk-focused approach. This approach requires the identification of risk factors for drug abuse, identification of methods by which risk factors have been effectively addressed, and application of these methods to appropriate high risk and general population samples in controlled studies. Evidence from studies of the etiology of adolescent drug abuse suggests that a viable prevention model would include simultaneous attention to a number of risk factors in different social domains to be addressed during the developmental period when each begins to stabilize as a predictor of subsequent drug abuse. The evidence further suggests that prevention efforts target populations at greatest risk of drug abuse because of their exposure to a large number of risk factors during development. A theory of adolescent drug abuse that accounts for the existing empirical evidence regarding risk and protective factors for adolescent substance abuse should be used to organize and integrate the complex work of developing and testing prevention interventions. Most drug abuse prevention efforts have addressed two risk factors for adolescent drug abuse: laws and norms favorable to drug use and social influences to use drugs. These efforts include supply manipulation, interdiction and enforcement strategies, efforts to change social norms regarding drug use, and social influence resistance skills training. Of these approaches, social influence resistance strategies have been evaluated most extensively for preventive effects in controlled studies. Several available studies of social influence resistance skills training for drug abuse prevention have produced short-term effects on rates of drug initiation, including reductions in smoking and, in few cases, in alcohol and marijuana use. Although such results are promising, the limits of these programs should be considered. Peer influence resistance skills training methods do not change the basic developmental conditions experienced by children. Although these methods have shown short-term effects on the incidence of drug initiation in the general population, they may have little effect on drug abuse among higher risk groups. Children who are at highest risk for adolescent drug abuse by virtue of poor family management, early and persistent behavior problems, low bonding to family, academic failure, and low commitment to school may be unmotivated to refuse or avoid drug use by late childhood.

- 113 Hawkins, J. D., Catalano, R. F., Morrison, D. M., O'Donnell, J., Abbott, R. D., & Day, L. E. (1992). **The Seattle Social Development Project: Effects of the first four years on protective factors and problem behaviors.** In J. McCord, & R. Tremblay (Eds.), *The prevention of antisocial behavior in children* (pp. 139-161). New York: Guilford Press.

The Seattle Social Development Project is a longitudinal field experiment following a group of multiethnic urban students who entered 1st grade in eight Seattle Public Schools in 1981. At that time, two schools were assigned to be full control or full experimental intervention sites. In the remaining six schools, entering 1st-grade students were assigned to intervention and control classrooms randomly. The project tested an intervention combining modified

teaching practices in mainstream classrooms and parent training designed to be developmentally appropriate as students progressed through grades 1, 2, 3, and 4. These strategies were chosen and designed to enhance opportunities, skills, and rewards for children's prosocial involvement in both the classroom and family settings. Teachers of children in the intervention condition were trained in a package of instructional methods that included three major components: proactive classroom management, interactive teaching, and cooperative learning. Parent training classes were offered to the adult caregivers of intervention students on a voluntary basis when students were in the first, second, and third grades. The largest effect sizes were observed for school constructs. Exposure to the intervention as implemented in this study appeared to have greatest effect on students' perceptions of schools as rewarding environments and on their attachment to school. Though the teaching interventions were expected to significantly enhance students' academic as well as social and behavioral skills, at the end of grade 4, students exposed to the intervention did not have higher standardized achievement test scores than controls. A finding worthy of note was the absence of difference between intervention and control students with respect to social norms and attitudes toward drugs. This suggested that intervention students did not simply subscribe to more socially desirable responses across the board. They expressed no greater perception that drug use was risky or unacceptable. However, they were more strongly bonded to family and school, and fewer had initiated either delinquent behavior or alcohol use by fifth grade than controls. Another finding suggested that increasing bonds to family and school can reduce delinquency and drug use initiation as hypothesized by the social development model. Both delinquency and drug use initiation were less prevalent in the experimental than in the control group.

114 Hernandez, J. T. (1992). Substance abuse among sexually abused adolescents and their families. *Journal of Adolescent Health, 13*, 658-662.

The concurrence of substance abuse and history of sexual abuse among adolescents prompted a study of substance abuse patterns among families of adolescents who report incest or extrafamilial sexual abuse. A total of 3,179 9th-grade students in a rural midwestern state completed a survey that included questions about individual and family substance abuse. Adolescent who had been sexually abused were more likely to report substance abuse for themselves as well as for members of their immediate families. They were also more likely to report that they used substances because of family problems, school problems, and because they were sad, lonely, or angry. Adolescents reporting a parent with an alcohol or a drug problem were more likely to use cigarettes, marijuana, alcohol, or "speed." Adolescents experiencing extrafamilial abuse reported more alcohol abuse and more alcohol-related problems than those who experienced incest. There were similar reports of parental and familial alcohol and drug problems among those experiencing incest and those experiencing extrafamilial abuse. Those with drug-abusing parents, however, were most likely to report some kind of sexual abuse history.

115 Hill, M. E., Harrell, J. S., & McCormick, L. K. (1992). Predictors of smokeless tobacco use by adolescents. *Research in Nursing and Health, 15*(5), 359-68.

Students in grades 6 and 7 ($N = 2,020$) were surveyed to determine the prevalence of smokeless tobacco (SLT) use and peer and parental influences on SLT use. Nearly 34% of boys and 12% of girls had used SLT at some time, and 8% of boys and 1% of girls were current users. While most associations were significant, the strongest relationships were between subjects' and peers' use of SLT. Logistic regression showed that the odds ratios for predicting adolescent's current use of SLT were 13.6 for peer use, 6.0 for male gender, 2.8 for white race, 2.8 for fathers' and 8.0 for mothers' ever use of SLT, and 2.6 for mother not a high school graduate. Results support the need for a multidisciplinary approach to research, treatment, and prevention to combat this growing health risk.

116 Hoshino, J. (1992). Assessment of adolescent substance abuse. In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 87-103). Gaithersburg, MD: Aspen Publishers.

The difficulty of assessing adolescent substance abuse is reviewed. Survey data indicate that adolescents are still using drugs and alcohol at a distressingly high rate, even though it appears that there has been some leveling of the frequency of drug use by high school seniors. The criteria used in the assessment of adolescent substance abuse differ from those used in the assessment of adult substance abuse. Assessment areas that have been identified as being problematic are: (a) differentiating problematic alcohol/drug use from normal adolescent experimenting; (b) differentiating abuse of alcohol/drugs from dependency; (c) differentiating alcohol/drug problems from general behavior problems, juvenile delinquency, or concomitant mental disorders; and (d) expanding standardized assessment tools to measure drug use other than alcohol, as adolescents are more likely to present with drug problems than are

adults. Factors that further complicate this issue are: (a) the research that has been done with adolescents has tended to mirror that done with adults; (b) the existence of an abundance of materials available for adults compared to few brief screening tools available for adolescents; and (c) the inadequacy of adult alcohol assessment scales when applied to the female adolescent population. It is concluded that the adolescent population requires a specialized assessment process. The significance of accurately assessing and treating the substance abuse problems of adolescents is emphasized.

- 117 Howard, M. C. (1992). **Adolescent substance abuse: A social learning theory perspective.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 29-40). Gaithersburg, MD: Aspen Publishers.

Adolescent substance abuse is discussed from the perspective of social learning theory, whose basic premise is that behavior is largely acquired and that it takes place as a result of complex relationships between person and environmental influences. Social learning theory maintains three basic constructs: observational learning, reinforcement, and definitions/expectancies. This theory is credited with predicting a relationship between drug use and participation in a substance abusing peer group. Also discussed in this chapter are: modeling; reinforcement of learned behavior; expectancy of behavior; definitions; prevention; and social skills training as a prevention technique.

- 118 Howard-Pitney B., LaFromboise, T. D., Basil, M., September, B., & Johnson, M. (1992). **Psychological and social indicators of suicide ideation and suicide attempts in Zuni adolescents.** *Journal of Consulting and Clinical Psychology, 60*(3), 473-6.

Suicide behavior is a significant problem for many American Indian populations, often more so than in the general population, but little tribal-specific data available. In this study, baseline data on the correlates of suicide ideation and the social and psychological differences between suicide attempters and nonattempters were collected on a sample of 84 Zuni adolescents. Results show significant correlations between a measure of suicide ideation and past suicide attempt behavior, drug use, depression, hopelessness, stress, psychological symptomatology, social support, liking for school, and interpersonal communication. Significant differences between the 30% of the students who reported having previously attempted suicide and the nonattempters were also found on these measures. Areas for education and prevention efforts are suggested.

- 119 Huetteman, J. D., Sarvela, P. D., & Benson, R. (1992). **Knowledge and attitudes toward alcohol and tobacco use among elementary children.** *Journal of Alcohol and Drug Education, 38*(1), 61?-72.

In an open-ended 1987-88 survey, 573 students in grades K-8 in a rural Illinois school system were asked who they would ask if they had a question about alcohol or tobacco, what they would do if someone offered them a can of beer or a cigarette, why people drink or smoke, and how alcohol and tobacco are harmful to the body. Most students indicated that they would ask their parents questions about alcohol and tobacco. Survey results showed that students were aware of the reasons why people used alcohol or tobacco, but did not know the harm involved in taking these drugs. If offered a can of beer or a cigarette, most students indicated they would say no. A noticeable increase in the number of students who would accept either a can of beer or a cigarette occurred in grade 5.

- 120 Huselid, R. F., & Cooper, M. L. (1992). **Gender roles as mediators of sex differences in adolescent alcohol use and abuse.** *Journal of Health and Social Behavior, 33*, 348-362.

The hypothesis that internalized gender-role personality attributes and gender-role ideology mediate sex differences in alcohol use and drinking problems was tested in a subset sample of 1,077 adolescents aged 13 to 19 (726 White and 381 Blacks, distributed evenly across gender) who had drunk alcohol in the previous six months. Data were collected in face-to-face interviews as part of a larger study. Respondents received \$25 for their participation. Gender role attributes were assessed using the 24-item Personal Attributes Questionnaire; and past six-month alcohol use were assessed with standard self-report alcohol measures: (a) frequency of drinking; (b) average number of drinks consumed on one occasion; (c) frequency of drinking to intoxication; and (d) frequency of drinking five or more

drinks on a single occasion. Frequency measures were assessed on a 9-point scale ranging from "not at all" to "every day." Race-by-gender interactions significantly predicted three of the four alcohol use measures, due to differences between Blacks and Whites in the relationship between drinking and masculine gender-role attributes.

Results indicated that gender roles substantially, although not completely, mediated the effects of sex on drinking patterns, and that the extent of this mediation was roughly equivalent for Whites and Blacks. Racial differences were found in links between alcohol outcomes and both instrumentality and emotional control (two of the masculine attributes). Emotional control was positively related to alcohol consumption among Whites, but negatively related among Blacks; while instrumental traits were positively associated with drinking among Blacks, but were negatively related to drinking and alcohol problems among Whites. These findings present the first direct evidence that sex differences in alcohol use are substantially mediated by gender-role attributes and gender-role ideology. The relationships between gender roles and alcohol use were largely consistent with the hypothesis that individuals with conventional gender identities conform more closely to cultural norms that condone drinking among males but not among females. However, effects of the gender-linked attributes of expressivity, emotional control, and instrumentality on drinking also may be interpreted within a framework that views them as functional coping styles. The presence of suppressor effects suggest that gender roles have more complex mediation effects on links between sex and alcohol outcomes than previously anticipated, and highlight the importance of examining the independent effects of various aspects of gender identity.

Finally, differences between Black and White teens in the relationships between alcohol use and the masculine attributes of instrumentality and emotional control suggest possible race differences in the functional value of these attributes. If instrumental and expressive attributes reflect functional coping styles while emotional control reflects a dysfunctional coping style, then heavy and problematic drinking should be negatively associated with instrumentality and positively associated with emotional control. This is precisely the pattern found among the White respondents; however, among Black adolescents, instrumentality was positively associated with drinking. It has been suggested that active coping styles may be more functional when individuals can change or control the stressors, and avoidant styles more adaptive when individuals have little or no control over the stressors. Thus, insofar as Blacks have less control over sources of stress in their lives, (e.g., racism, violence, poverty), instrumentality may be less functional and emotional control may be more functional than for Whites.

- 121 Hussey, J. M., Gilchrist, L. D., Gillmore, M. R., & Lohr, M. J. (1992). **Factors related to cigarette smoking during adolescent pregnancy.** *Journal of Youth and Adolescence*, 21(4), 409-420.

Previous research suggested that maternal smoking during pregnancy remains prevalent, particularly among adolescents. To identify intrapersonal, familial, and peer factors that are related to smoking during adolescent pregnancy, and to determine the relative degree to which they affect this behavior, interviews were conducted with 241 unmarried pregnant adolescents who planned to carry their pregnancies to term, identified through service agencies in the Seattle metropolitan area. The sample was 51% White and 32% Black, and 38% were not presently in school. Consistent with previous studies, 27% of the respondents reported daily smoking during pregnancy, and 7% reported smoking a pack or more per day while pregnant. Ethnic breakdowns showed that 40% of Whites, 8% of Blacks, and 22% of others reported daily smoking. The ethnic breakdown pattern for heavy smoking was similar, and the interaction between smoking and race remained significant when controlling for SES, intrapersonal, family, and peer factors. Siblings and best friends seemed to have more influence on cigarette use than did boyfriends. Multiple regression analyses suggested that perceived parental disapproval of smoking during pregnancy, friends' cigarette use, and race play a particularly important role in this behavior. It is suggested, then, that further research, and prevention programming, should pursue these factors.

- 122 Iannotti, R. J., & Bush, P. J. (1992). **Perceived vs. actual friends' use of alcohol, cigarettes, marijuana, and cocaine: Which has the most influence?** *Journal of Youth and Adolescence*, 21(3), 375-389.

Determinants of the use of alcohol, alcohol without parental knowledge, cigarettes, marijuana, and crack were assessed among 2,078 4th-graders and 1,082 5th-graders in 81 schools (90% Black, and 51% female). Each subject identified three best friends. Alcohol had been tried by a majority of these elementary school children and a small percentage had tried marijuana or crack, and 14.9% indicated they had used alcohol without their mothers knowledge. Logistic and least-square regression analyses indicated that children's perceptions of friends' use, perception of family use, and actual use of classmates were better predictors of substance use than friends' actual use. The pattern of predictors suggested that peer behaviors and attitudes were more influential for children's socially-censured behaviors

such as using alcohol without parental permission than for more socially-approved behaviors such as using alcohol with parental permission.

The most notable first-order correlation was between the perceived substance use of friends and the substance use of the respondent. Other variables found to be significant, and to account for more than 6% of the variance in respondent substance use, included (a) perceived substance use of family members and (b) use reported by the child's classmates. Personal variables associated with substance use included male gender, higher SES, and older age. Logistic regressions with reported use of alcohol, alcohol without parental knowledge, cigarettes, and marijuana as outcome measures, and least-square regression with number of substances used including crack cocaine as the outcome measure were performed to test each of the hypotheses. The cross-sectional results suggested that the child's perception of friends' use was more important than actual friends' behavior. But, contrary to predictions, classroom use, the reported use of the members of the class other than the subject, was a much better predictor of substance use than the use of the child's friends. The importance of perceived friends' use as compared to friends' actual use supports Behavioral Intention Theory and Cognitive Developmental Theory, while the importance of classroom use supports Social Learning Theory or may reflect social and environmental conditions including neighborhood availability of drugs and neighborhood values regarding substance use.

- 123 Jackson, M. R. (1992). *Adolescent alcohol and other drug programs resource directory*. Portland, OR: Western Regional Center for Drug-free Schools and Communities.

The Western Regional Center for Drug-Free Schools and Communities developed the Adolescent Alcohol and Other Drug programs Resource Directory to help community agencies and school districts create linkages with other programs. This resource directory also encourages agencies to develop referral systems for youth in need of alcohol and other drug (AOD)-related services. To foster the level of resiliency that many youth need, agencies and institutions must use the resources and expertise of other programs to expand their service delivery capabilities. This can only occur if programs are aware of other community services. It lists 70 programs in Los Angeles County that offer a wide variety of AOD-related services for youth. For each program, the resource directory lists the address, telephone number, supervisorial district, program strategy (e.g., treatment, prevention), and program description.

- 124 Jenson, J. M., Wells, E. A., Plotnick, R. D., Hawkins, J. D., & Catalano, R. F. (1993). **The effects of skills and intentions to use drugs on posttreatment drug use of adolescents.** *American Journal of Drug and Alcohol Abuse*, 19(1), 1-18.

A sample of 130 residents (103 males and 27 females) of a Washington state juvenile facility for adjudicated adolescent offenders was examined to assess the relationships among (a) social, cognitive, and behavioral skills; (b) self-reported intentions to use drugs and alcohol following treatment; and (c) later drug and alcohol use. Skills were assessed with the Adolescent Problem Situation Inventory, and both intentions to use, and actual use of alcohol and other drugs were measured via structured interviews at recruitment, 6-month followup, and 15-month followup. Social, problems solving, self-control, and drug and alcohol avoidance skills were significantly related to marijuana use, variety and severity of drug use, and to the number of drug-free months for female subjects at 12-month follow-up. These skills did not have a statistically significant direct effect on any measured drug outcomes for males. However, skills did lower male subjects' intentions to use drugs or alcohol. Decreased intentions to use, in turn, were associated with less drug and alcohol use, suggesting an indirect relationship between skills and reductions in drug and alcohol use among males at 12-month follow-up.

- 125 Joanning, H., Quinn, W., Thomas, F., & Mullen, R. (1992). **Treating adolescent drug abuse: A comparison of family systems therapy, group therapy, and family drug education.** *Journal of Marital and Family Therapy*, 18(4), 345-356.

The differential effectiveness of three models of adolescent drug abuse treatment was assessed in a controlled outcome study of 134 families with drug-abusing adolescents (ages 11-20). The mothers in the sample were 68% White, 29% Mexican American, and 2% Black; and the fathers were 74% White, 23% Mexican American, and 3% Black. For the comparison, 40 families were assigned to Family Systems Therapy (FST), 52 to Adolescent Group Therapy (AGT), and 42 to Family Drug Education (FDE). Families who did not complete enough of their assigned treatment were excluded from the analyses. FST appeared to be more effective in stopping adolescent drug abuse than AGT or FDE, registering twice as many apparently drug-free clients than FDE and three times as many as AGT. However, a

number of possible confounds make this conclusion tentative. No treatment approach was superior in altering patterns of family functioning although all three conditions improved perceived intergenerational communication.

- 126 Kaminer, Y., Tarter, R. E., Bukstein, & Kabene, M. (1992). **Comparison between treatment completers and noncompleters among dually diagnosed substance-abusing adolescents.** *Journal of American Academy of Child and Adolescent Psychiatry, 31*(6), 1046-1049.

The psychiatric and demographic characteristics that may distinguish treatment completers from noncompleters among hospitalized adolescents with substance abuse and comorbid psychiatric disorders were examined. Affective and adjustment disorders were more prevalent among treatment completers whereas non-completers were more likely to be assigned a conduct disorder diagnosis. There were no differences between the groups with respect to demographic and legal status, education level and lifetime psychiatric diagnosis in the parents or caretakers, living arrangements, treatment history, and perception of treatment benefits. A higher percentage of treatment completers than noncompleters received psychotropic medications. The factors contributing to treatment termination as well as the clinical and research implications of the findings are discussed.

- 127 Kandel, D. B., Yamaguchi, K., & Chen, K. (1992). **Stages of progression in drug involvement from adolescence to adulthood: Further evidence for the gateway theory.** *Journal of Studies on Alcohol, 53*, 447-457.

Sequential stages of involvement in alcohol and/or cigarettes, marijuana, other illicit drugs and medically prescribed psychoactive drugs from adolescence to adulthood are investigated in a longitudinal cohort that has been followed from ages 15 to 35. Data was taken, via 1.5 hour structured interviews, from a 1990 followup of a cohort of 1,160 young adults representative of the sample surveyed in grades 10 and 11 at New York State public high schools in 1971-72. Information was collected on history of use of 12 drug classes, including alcohol, cigarettes, marijuana, psychedelics, cocaine, heroin, methadone, tranquilizers, sedatives, stimulants, and antidepressives, including both medical and nonmedical use. Age of initiation was elicited for use of each drug, and detailed retrospective histories for all drugs used 10 times or more in subject's lifetime. Prevalence of use 10 times or more was measured as follows: alcohol, 98% of men and 97% of women; marijuana, 67% and 54%; other illicit, 37% and 24%; medically prescribed drugs, 17% and 15%; Alternative models of progression are tested for their goodness of fit. Four stages are identified: that of legal drugs, alcohol or cigarettes; marijuana; illicit drugs other than marijuana; and medically prescribed drugs. Whereas progression to illicit drugs among men is dependent upon prior use of alcohol, among women either cigarettes or alcohol is a sufficient condition for progression to marijuana. Age of onset and frequency of use at a lower stage of drug use are strong predictors of further progression. It must be remembered that although developmental sequence of drug involvement has been identified, use at one stage does not invariably lead to the next stage: many youths stop at a particular stage and progress no farther. Furthermore, the notion of a sequence of stages does not imply that all of these stages are obligatory, nor universal. It is suggested that isolating populations at risk for progression from one stage to the next may make it possible to identify factors which affect these transitions.

- 128 Kandel, D., & Yamaguchi, K. (1993). **From beer to crack: Developmental patterns of drug involvement.** *American Journal of Public Health, 83*(6), 851-855.

Prior research had identified developmental stages in drug use in adolescence, from substances that are legal for adults to illicit drugs. The position of crack in patterns of drug involvement remains to be established. The analyses are based on a sample ($N = 1,108$) representative of 12th-graders attending New York state public and private schools. From reported ages of first use of five classes of drugs (alcoholic beverages, cigarettes, marijuana, cocaine but not crack, crack), alternate models of progression were tested for their goodness of fit through log-linear models. The sequence involves at the earliest stage the use of at least one licit drug, alcohol or cigarettes. Subsequent stages involve marijuana and cocaine; crack is the last drug in the sequence. The results confirm the more important role of alcohol among males and cigarettes among females in the progression into various drug classes. Age of first drug use at a lower stage is a strong predictor of further progression. The developmental pattern of drug involvement identified in the early 1970s still characterizes adolescent pathways of drug involvement in the late 1980s.

- 129 Kantor, G. K., Caudill, B. D., & Ungerleider, S. (1992). **Project Impact: Teaching the teachers to intervene in student substance abuse problems.** *Journal of Alcohol and Drug Education, 38*(1), 11-29.

Survey data from 528 high school teachers are used to evaluate an adolescent substance-abuse prevention/intervention program. The study finds that Project Impact, a multi-faceted program based on a social learning/community intervention model, is successful in achieving its goals. Greater self-efficacy in trained teachers compared to non-Impact trained teachers is suggested by trainees' greater confidence in their ability to identify student substance-abuse problems. Trained teachers are also significantly more likely to have provided drug education to their students, show greater willingness to intervene in student substance-abuse problems and make more actual referrals of students with suspected problems of drug and alcohol abuse.

- 130 Kim, S., McLeod, J. G., & Shantzis, C. (1993). **An outcome evaluation of Here's Looking at You 2000.** *Journal of Drug Education, 23*(1), 67-81.

"Here's Looking At You 2000" was developed in 1985 and is one of the most widely used drug education and prevention programs in the U.S. The curriculum focuses on so-called gateway drugs, with a "no use" message. It teaches social skills and attempts to promote students' self-esteem, and bonds with families and other positive social institutions. HLAY 2000 was offered to the 463 students in grades 7 and 8, by regular classroom teachers in the Yadkin County Schools in rural North Carolina. Six schools served as the experimental group while two randomly selected schools served as a control group, during the 1990-91 school year. Data for program evaluation was collected from 170 students at the experimental schools, and 58 at the controls. At posttest, no statistically significant differences were found between the experimental and control groups, on attitudinal measures, drug use measures, or peer drug use. The study was subject to a high attrition rate, and at the posttest as many as 30% of students in the experimental group did not recall having received the program.

- 131 Kim, S., McLeod, J. H., & Shantzis, C. (1992). **Cultural competence for evaluators working with Asian-American communities: Some practical considerations.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 203-260). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

This chapter presents some of the practical issues one must address when evaluating alcohol and other drug (AOD) misuse and abuse prevention programs involving Asian/Pacific Island-American communities. Specifically, the emphasis is on large-scale community-based prevention programs rather than on issues pertaining to AOD addiction treatment, which is the focus of the following chapter. In exploring this essentially uncharted area of inquiry, this chapter defines the basic premises of social science research and program evaluation theory and contrasts them with the factors that are necessary for culturally competent evaluation when Asian groups are involved. It also discusses the concept of cultural competence in prevention agencies and reviews a variety of management strategies that can improve the program evaluation process.

- 132 King, C. A., Hill, E. M., Naylor, M., Evans, T., & Shain, B. (1993). **Alcohol consumption in relation to other predictors of suicidality among adolescent inpatient girls.** *Journal of American Academy of Child and Adolescent Psychiatry, 32*(1), 82-88.

A study of 54 adolescent inpatient girls examined alcohol consumption in relation to depression severity and family dysfunction as predictors of suicidal ideation and behavior. Although alcohol consumption, depression severity, and family dysfunction were intercorrelated, regression analyses revealed their differential importance to the prediction of self-reported suicidal ideation and severity of clinician-documented suicidal ideation or behavior (none, ideation, intent, gesture, attempt). Self-reported ideation was strongly predicted by depression severity and family dysfunction; severity of clinician-documented suicidal ideation or behavior was predicted by alcohol consumption and family dysfunction. Implications for assessment and treatment are discussed.

- 133 King, J., Beals, J., Manson, S. M., & Trimble, J. E. (1992). **A structural equation model of factors related to substance use among American Indian adolescents.** *Drugs & Society*, 6, 253-268.

Data is presented from the third biannual wave in a longitudinal survey of Native American high school students at a tribally-administered boarding school with enrollment of about 200. Three-quarters of the enrolled students live in school dormitories year-round, and most come from five local tribes, and homes within the state. The sample included 177 students who completed the survey, 84 males and 93 females, ranging in age from 12-19 (average age = 16). A self-report questionnaire was administered twice during the school year at the same time of the morning. Analyses was limited to data from questions on alcohol and drug use, depression, social support, and stressful events. Life stress was expected to predict perceived social support and depression, as well as levels of substance use. Family support and friend support were both expected to predict levels of depression and substance use, and to mediate the effects of stress on depression and on substance use.

Survey data indicated that 87% of the respondents had tried alcohol, and 75% had used alcohol at least once in the previous year. One quarter reported using alcohol every weekend, and 54% indicated that they have at least six drinks when they drink—73% of these said they drank until they were high. Data revealed that 74% of the sample had tried marijuana, and 47% reported using it at least once a month. Of the monthly users, 58% (24% of total sample) reported that they had used it 3 or more times in the previous month. One-quarter of the sample reported having tried inhalants, and one tenth reported at least monthly use. Some use of other illicit drugs was reported for the previous month by 16% of the sample, and 45% of those students had used other drugs 3 or more times in the same period.

Life stress was found, as hypothesized, to be significantly related to depression and to measures of substance use in all four categories. The higher the life stress measure, the more likely the depression measure and use measures were likely to be. Likewise, family support was negatively related to life stress. Social support did not, however, predict levels of depression or of substance use. Greater perceived family support did predict lower levels of alcohol use. Gender was not significantly related to any of the constructs. It must be noted that while these relationships were statistically significant, the correlations were small. Students with low life stress perceived greater family support and were less likely to use alcohol than those with higher life stress, yet social support did not appear influential in depression or drug use. This latter finding goes against the conclusions of other studies. Native American youths may use social support differently than do other youth, and the boarding school setting may also affect the reliance on family and social support. Longitudinal analysis of the cross-sectional data analyzed in this study should provide better understanding.

- 134 Kingery, P. M., Pruitt, B. E., & Hurley, R. S. (1992). **Violence and illegal drug use among adolescents: Evidence from the U.S. National Adolescent Student Health Survey.** *International Journal of the Addictions*, 27(12), 1445-1464.

The relationships between violence, drug use, and victimization were examined in a representative sample of American adolescents. The most commonly used illegal drugs (marijuana, amyl/butyl nitrites, psychedelics, amphetamines, and cocaine) and alcohol were considered. Drug users, compared to nonusers, fought more, took more risks which predisposed them to assault, and were assaulted more both at school and outside school supervision. Adolescents who were victims at school were also more likely to be victimized outside of school supervision. This study clearly demonstrates that the aggressor may also be the victim, and that illegal drug/alcohol use is related to victimization.

- 135 Kirkpatrick-Smith, J., & Rich, A. R. (1992). **Psychological vulnerability and substance abuse as predictors of suicide ideation among adolescents.** *Omega*, 24(1), 21-33.

This investigation was designed to cross-validate and extend the stress vulnerability model of suicidal behavior as proposed by Bonner and Rich to an adolescent population. Students ($N = 613$) in grades 8-12 from an upper middle-class, suburban school district in western Pennsylvania were administered self-report measures of life-stress, depression, hopelessness, reasons for living, loneliness, alcohol and drug use, and suicidal ideation. Stepwise multiple regression analysis was performed to develop a subset of variables useful in predicting suicidal ideation and to eliminate those variables that did not provide additional predictive powers. Depression, hopelessness, few reasons for living and problem substance use were significant predictors of suicidal ideation. This accounted for 50% of variance in suicide ideation scores when all subjects were combined.

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- 136 Kitz, L. (1992). **Alcohol education through schools: A psychosocial perspective.** *Journal of School Health, 62*(2), 67-70.

A psychosocial theoretical perspective creates a rationale for directing alcohol education efforts toward enabling youth to make low-risk lifestyle choices. Meeting students' psychological needs by implementing alcohol abuse prevention curricula to improve social skills is recommended. The article discusses the etiology and treatment of problem drinking, noting health education implications.

- 137 Klitzner, M., Fisher, D., Stewart, K., & Gilbert, S. (1992). **Substance abuse: Early intervention for adolescents.** Bethesda, MD: Pacific Institute for Research and Evaluation.

An attempt is made to develop a workable definition of early intervention, along with discussion of the potential need for early intervention services based on national epidemiologic data, and of the potential risks of early intervention and adolescent treatment effectiveness. Existing early intervention strategies are summarized, and, where available, evaluation research data is reviewed and critiqued. School-based early intervention is reviewed, with a secondary emphasis on early intervention strategies in health care, juvenile courts and corrections, and non-institutional settings (community agencies). Available technologies are described for screening, assessing, and referring adolescents. Gaps are identified in existing knowledge, theory, and practice related to early intervention for children and adolescents, and promising strategies, programs, and technologies for further development are summarized. An attempt is made to stimulate thought concerning early intervention and suggest promising avenues for future research and development in the area of early intervention.

- 138 Kokotailo, P. K., Adger Jr., H., Duggan, A. K., Repke, J., & Joffe, A. (1992). **Cigarette, alcohol, and other drug use by school-age pregnant adolescents: Prevalence, detection, and associated risk factors.** *Pediatrics, 90*(3), 328-334.

The use of cigarettes, alcohol, and other drugs among pregnant adolescents is just beginning to be documented. This study sought to determine the prevalence and associated risk factors of cigarette, alcohol, and other drug use among school-age adolescents attending a comprehensive teenage pregnancy program at the Johns Hopkins Hospital in Baltimore. All enrollees completed a self-administered questionnaire and provided a breath sample for carbon monoxide analysis. Urine was obtained for quantitative determination of drug metabolites at the initial visit and at one third-trimester visit. A chart review determined medical provider recognition of cigarette, alcohol, and other drug use. Results were analyzed for 93% of 229 eligible patients. Seventeen percent were positive for alcohol or other drug use by questionnaire self-report, provider report, or initial urine screen; 11% were positive by urine screen alone at either the initial or third-trimester visit. Medical providers were successful in identifying nearly all of the cigarette smokers, but fewer than half of the alcohol drinkers and few of the other drug users. Forward stepwise multiple regression determined the most efficient model for predicting alcohol and other drug use. A report of having been high at school and personal or friends' use of cigarettes were the most significant risk factors. Results indicate a high prevalence of alcohol and other drug use and suggest a need for changes in current practice related to the detection and management of such drug use in pregnant adolescents.

- 139 Komoroski, E. M., & Rickert, V. I. (1992). **Adolescent body image and attitudes to anabolic steroid use.** *American Journal of Diseases of Children, 146*, 823-828.

Eleventh-grade students at seven high schools in central Arkansas were surveyed regarding anabolic steroid use, risk-taking behavior, satisfaction with body image, and attitudes and beliefs regarding anabolic steroids. A total of 1,492 adolescents were surveyed. Fifty-one (7.6%) of 672 males and 12 (1.5%) of 806 females admitted anabolic steroid use. Fourteen students did not specify gender. Bivariate comparisons showed significant differences between users and nonusers in risk-taking behaviors and degree of satisfaction with body image and muscles. Users were more likely than nonusers to approve of anabolic steroid use in sports and to believe that anabolic steroid use could improve one's health. Multivariate analyses found gender, knowledge of beneficial side effects, knowing other anabolic steroid users, age, and race to be significantly related to anabolic steroid use. Information about steroids' effects seldom came from physicians, but often came from peers. Anabolic steroid use was strongly motivated by social influences, some knowledge of beneficial effects, and denial of adverse effects in white adolescent males in our study population.

- 140 Kooler, J. M., & Bruvold, W. H. (1992). **Evaluation of an educational intervention upon knowledge, attitudes, and behavior concerning drinking/drugged driving.** *Journal of Drug Education, 22*(1), 87-100.

The Contra Costa County educational program for juveniles found guilty of driving under the influence (DUI) was evaluated. Over 600 juveniles convicted of DUI from 1983 to 1988 formed the study group for this research and of these over 100 participated in the educational program. Assessment of program participants was conducted for knowledge, attitudes and behavior. Participants demonstrated increased knowledge, stronger attitudes against driving under the influence, and less risky alcohol and automobile related behaviors. County juvenile records analyzed by the logit procedure showed that class participants had a significantly lower number of repeat offenses compared to nonprogram participants that could not be explained by race, offense severity, age or gender.

- 141 Kouzis, A. C., & Labouvie, E. W. (1992). **Use intensity, functional elaboration, and contextual constraint as facets of adolescent alcohol and marijuana use.** *Psychology of Addictive Behaviors, 6*(3), 188-195.

Longitudinal data from a normal population of adolescents, recruited for the initial sample through a random sampling of telephone numbers covering all but five counties of New Jersey, were used to describe the situational variety of adolescent alcohol and marijuana use over the age period from ages 12-21. Findings indicated that (a) at every age level more adolescents have used alcohol than have used marijuana, (b) initiation of alcohol and marijuana use is most pronounced between ages 12 and 15, and (c) more male adolescents are users of alcohol and marijuana than are same-age female adolescents.

Most of the alcohol use of 12-year-olds was reported as having occurred on weekend evenings or special occasions, with family members of friends, and in their own home, at parties, or at a friends' home. By age 21, use was more evenly distributed across most of the choices listed, although use before or during school or work remained quite low. Of particular interest was the fact that alcohol use in cars became quite common by age 18 among both males and females. For marijuana use, contexts were considered only for ages 15 and up because of the very small number of users at age 12. In fact, only 11 subjects (4 males and 7 females) reported ever having used marijuana at the age of 12. From age 15 on, marijuana use tended to be more evenly distributed across the various contexts than did alcohol use. In particular, more marijuana use (relatively speaking) took place before and during school or work, at school, and in cars. The peaking of use in certain contexts at age 18, particularly in work-related contexts for alcohol (i.e., before school or work) and marijuana use (i.e., before, during, and after school or work and at lunch), suggests that increasing situational constraint after this age may be associated with the critical turning point or juncture in one's development marked by sociolegal change of status.

Also examined were the relationships among 3 facets of use: intensity, functional elaboration, and lack of situational constraint of use. The 3 facets of use were found to increase simultaneously with increasing age and to be positively correlated with each other. The strong relationship between use intensity and lessened situational constraint needs to be considered when designing interventions aimed at reducing use by constraining it to a more limited variety of places and times that are safer and less risky. However, although it may prove relatively simple to monitor situations and contents of use, strategies aimed at changing individual use patterns will have to also take into account the issue of functional elaboration of use and the possibility that different contexts are associated with different functions of, or reasons for, use.

- 142 Kumpfer, K. L., & Hopkins, R. (1993). **Prevention: Current research and trends.** *Psychiatric Clinics of North America, 16*(1), 11-20.

Prevention approaches must address the real causes of addictions. Unfortunately, the addictions field is still debating whether biologic or environmental factors are the primary cause of addictions. Both biologic and environmental factors need to be addressed in prevention programs, as well as clinical assessments of "at risk" clients. The AOD prevention programs of the 1990s should be resiliency-focused and include interventions of sufficient dosage and strength. Although some child behavioral technology exists to tackle successfully changes in resiliency, additional prevention strategies need to be developed and studied. In some ways, the prevention field is hampered by the lack of sufficient research in the child and adolescent psychiatry and psychology fields, that includes transactional research in parenting and child rearing for high-risk youth. Some of the guidelines currently being stressed include developing in youth an increased sense of responsibility for their own success, helping them to identify their talents, motivating them to dedicate their lives to helping society rather than feeling their only purpose in life is to be consumers, providing realistic appraisals and feedback for youth rather than graciously building up their self-esteem, stressing

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multicultural competence in an ever-shrinking world, encouraging and valuing education and skills training, increasing cooperative solutions to problems rather than competitive or aggressive solutions, and increasing a sense of responsibility for others and caring for others.

- 143 Kusserow, R. P. (1993). *Youth and alcohol: Selected reports to the Surgeon General*. Washington, DC: U.S. Government Printing Office.

Inspector General's reports to the Surgeon General review national secondary school survey results on both alcohol use and knowledge about alcohol content of beverages, federal and state laws and law enforcement, advertising which appeals to adolescents. Recommendations are to reduce adolescent drinking.

- 144 Lawson, A. W. (1992). **Intergenerational alcoholism: The family connection**. In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent Substance Abuse: Etiology, Treatment, and Prevention* (pp. 41-69). Gaithersburg, MD: Aspen Publishers.

While it is popular to blame adolescent substance abuse on peer pressure or availability of substances of abuse, adolescents are also greatly influenced by their parents' attitudes, behaviors, values, and teachings. Studies of familial alcoholism have shown that 28% of the women alcoholics had alcoholic fathers and 12% had alcoholic mothers. Of men receiving treatment for alcoholism, 21% reported that their fathers, and 3% that their mothers were alcoholics. An alcoholic was more likely to have a father, mother, or more distant relative who was an alcoholic than was a nonalcoholic. The frequency of reported alcoholism was higher in male relatives than in female relatives, but the possibility of hiding alcoholism among women may have affected these reports. Other studies have shown that women are more vulnerable to the familial impact of alcoholism. This familial transmission was also noted in other subgroups: American Indians, Irish Americans, and Whites as opposed to Blacks. These studies indicate that alcoholism runs in families, but they do not answer the important question of whether it is nature or nurture that produces this familial transmission. Researchers have tried to isolate the genetic influences in three types of studies: (a) twin studies; (b) adoption and half-sibling studies; and (c) genetic marker studies.

- 145 Lawson, G. W. (1992). **Twelve-step programs and the treatment of adolescent substance abuse**. In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent Substance Abuse: Etiology, Treatment, and Prevention* (pp. 219-229). Gaithersburg, MD: Aspen Publishers.

The relevance and effectiveness of the growing use of the 12-step program in the treatment of adolescent substance abuse is reviewed. Although there is a general lack of research to support the effectiveness of a 12-step or any other approach to adolescent substance abuse treatment, the 12-step approach appears to be pervasive. Part of this reason for this is the fact that many of these adolescent treatment programs were founded and are run by recovering alcoholics or drug addicts who themselves gained sobriety as the result of a 12-step program. Another reason for the widespread acceptance of such programs is the fact that they are readily available, free and simple to use. People attending these programs are able to change their behavior because they learn to believe that they can change. Motivation may be the most important factor in the treatment of adolescent substance abusers, because adolescents usually believe that they can do anything they choose to do, including giving up drugs or alcohol.

- 146 Linqunti, R. (1992). **Using community-wide collaboration to foster resiliency in kids: A conceptual framework**. Portland, OR: Western Regional Center for Drug-free Schools and Communities.

Together, collaboration and resiliency have a powerful synergy that can greatly benefit children. By applying the conceptual framework of resiliency to our collaborative efforts, families and communities become vital participants in improving their own lives, and their strengths, capacities, and assets become valuable resources. Collaborations that focus on fostering resiliency can engage and involve all members of the community in building an environment rich in protective factors to enable youth to overcome risks and develop into healthy adults. In this way, collaboration can become an effective means to foster resiliency in kids.

- 147 Loecker, G., Smith, D. A., Smith, L., & Bunker, P. (1992). **HIV associated risk factors: a survey of a troubled adolescent population.** *South Dakota Journal of Medicine*, 45(4), 91-94.

The incidence of acquired immunodeficiency syndrome (AIDS) in young adults and the typical incubation period for AIDS suggest that exposure to this disease often occurs in adolescence, a period of life during which risk taking behavior is particularly common. The population of adolescents with mental or behavioral problems and substance abuse problems at the South Dakota Human Services Center were studied by questionnaire and by human immunodeficiency virus (HIV) screening to assess the current prevalence of seropositivity and the potential for HIV transmission in these troubled youths. Sexual behavior, number of partners, prior incarceration, history of sexual abuse, drug and alcohol use, and knowledge about HIV transmission were examined. While no cases of HIV seropositivity were discovered, the authors are disturbed by the prevalence of known and suspected correlate behaviors and historical traits for HIV infection in this population. Implications for intervention and education are discussed.

- 148 Lohr, M. J., Gillmore, M. R., Gilchrist, L. D., & Butler, S. S. (1992). **Factors related to substance use by pregnant, school-age adolescents.** *Journal of Adolescent Health*, 13, 475-482.

This study provides information on substance use among pregnant adolescents, and examines social influence, intrapersonal, and environmental factors associated with substance use during pregnancy in adolescence. The sample consists of premaritally pregnant adolescents ($N = 241$) recruited from schools, prenatal clinics, and social service agencies, who were interviewed for a longitudinal study of patterns of drug use among pregnant and parenting school-age adolescents. The findings indicated that, although the sample demonstrated a high rate of prepregnancy substance use, a significant drop in use occurred during pregnancy. Logistic regression analysis indicated that perceived harm of using substance while pregnant, best friend's substance use, boyfriend's substance use, and school status were related to substance use during pregnancy, even after controlling for the effects of prepregnancy substance use. While the findings showed that adolescents who considered substance use during pregnancy to be more harmful were less likely to use than those who considered it less harmful, the sources of these opinions are not known. Education on effects of fetal substance exposure would seem to be called for, but identifying the adolescents in need of this education, and devising the means of educating them are not simple matters.

- 149 Lorion, R. P., & Ross, J. G. (1992). **Programs for change: A realistic look at the nation's potential for preventing substance involvement among high-risk youth.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 3-9.

Preventive interventions appear to maximize their potential for lowering rates of alcohol and other drug (AOD) use when targeted toward youth burdened by combinations of risk factors. Increasingly, epidemiological findings confirm that the decision to initiate and continue substance use represents the aggregated influences and co-occurrence of individual, familial, peer, and community risk factors. The development and implementation of a community-based preventive intervention is an extraordinarily complicated undertaking. The evaluation of community-based preventive interventions concerns far more than determining the proportion of program participants using AOD relative to their nonrecipient counterparts.

- 150 MacKinnon, D. P., Pentz, M. A., & Stacy, A. W. (1993). **The alcohol warning label and adolescents: The first year.** *American Journal of Public Health*, 83(4), 585-7.

Awareness of the alcohol labeling law and exposure to, beliefs about, and memory for the government-mandated alcohol warning label were measured in a sample of adolescents immediately before the label was required to appear (in the fall of 1989) and 1 year after the label was required. After the label was required, there were increases in awareness, exposure, and recognition memory, but there were not substantial changes in alcohol use or beliefs about the risks written on the warning.

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- 151 Males, M. (1992). **The Code Blue report: Call to action, or unwarranted "dirism"?** *Adolescence*, 27(106), 273-82.

The Code Blue report, recently issued by a distinguished panel formed by national medical and educational associations, paints a dire picture of the state of adolescent health and recommends far-reaching measures to reverse "dangerous trends." However, analysis of the report's findings reveals serious flaws in its presentation of nearly every youth problem cited, and its recommendations are much less original and workable than portrayed. A more moderate and positive approach toward youth problems is suggested.

- 152 Manger, T. H., Hawkins, J. D., Haggerty, K. P., & Catalano, R. F. (1992). **Mobilizing communities to reduce risks for drug abuse: Lessons on using research to guide prevention practice.** *Journal of Primary Prevention*, 13(1), 3-22.

A community mobilization project for drug abuse prevention is described which involved a state-wide collaboration involving 28 communities. The project uses current research on risk and protective factors for adolescent drug abuse as its foundation. Through training and technical assistance, communities have been mobilized to design and implement comprehensive, risk-focused plans for adolescent drug abuse prevention.

- 153 Mason, D. T., Lusk, M. W., & Gintzler, M. (1992). **Beyond ideology in drug policy: The primary prevention model.** *Journal of Drug Issues*, 22(4), 959-976.

Drug policy in the United States is heavily influenced by popular and expert ideologies and a social definition of the problem. As a result, public substance abuse policies reflect an incoherent compromise between medical and criminal definitions and approaches to intervention. The effect is that in both conceptions, the problem locus is in the individual user. Thus, contemporary prevention, treatment and rehabilitation strategies fail to account for the myriad socioeconomic correlates of abuse and tend to atomize the problem by reducing it to the lowest common denominator—the drug-abusing person. Primary prevention approaches to drug abuse hold the greatest promise for remediation of this social problem because of the inclusion of macroenvironmental factors in tandem with individual risk factors to form a comprehensive approach to policy formulation.

- 154 McDermott, R. J., Sarvela, P. D., Hoalt, P. N., Bajracharya, S. M., Marty, P. J., & Emery, E. M. (1992). **Multiple correlates of cigarette use among high school students.** *Journal of School Health*, 62(4), 146-150.

A cross-sectional survey research design measured factors related to cigarette use among 2,212 senior high school students. Results showed 14.3 % of the sample smoked cigarettes at least occasionally, with 5.3% reporting they were daily smokers. About 12.8% indicated they were ex-smokers. Males and females smoked at almost equal rates, and the percentage of 10th grade student smokers was slightly higher (16.4%) than the percentage of juniors and seniors who smoked. Approximately 22% of Hispanic students, 15% of Caucasian students, and 4.5% of African-American students reported smoking cigarettes at least occasionally. An initial regression analysis used 21 variables to predict cigarette smoking. A more parsimonious regression model ($R^2 = .28$), using variables from the initial regression analysis with significance levels of .01 or less, indicated the most important predictors of cigarette use were ethnic group, attitude toward females who smoke, close friends' use of cigarettes, personal use of marijuana, best friend's use of cigarettes, personal use of alcohol, and school self-esteem. Implications for school health programs are addressed.

- 155 McLaughlin, R. J., Holcomb, J. D., Jibaja-Rusth, M. L., & Webb, J. (1993). **Teacher ratings of student risk for substance use as a function of specialized training.** *Journal of Drug Education*, 23(1), 83-95.

A study was undertaken to assess whether teachers' abilities to identify accurately students who are at risk for substance abuse can be improved through attendance at a specialized training program. Sixty-three 8th-grade teachers from a school district near Houston, Texas, participated in the study: 36 teachers received the training (intervention group), and the remaining 27 teachers served as a comparison group. All 8th-grade students in the school district were surveyed regarding their substance usage. Teachers rated the students regarding their risk for substance usage. Teachers' ratings and students' reported substance usage were compared to assess the percentage of matching

responses. After training, the intervention teachers provided more accurate ratings among usage categories than did the comparison teachers. The trained teachers did better at correctly identifying the students who were at risk for substance use, than the comparison teachers.

- 156 Mensch, B., & Kandel, D. B. (1992). **Drug use as a risk factor for premarital teen pregnancy and abortion in a national sample of young white women.** *Demography*, 29(3), 409-429.

The relationship between adolescent drug use and premarital teen pregnancy and abortion as a pregnancy outcome among sexually active women is investigated in a sample of white women from the National Longitudinal Survey of Youth. Event history analysis is used to explore whether prior drug use has a unique effect on premarital teen pregnancy, with controls for personality, lifestyle, and biological factors. Logistic regression is used to estimate whether drug use affects the decision to terminate a premarital teen pregnancy. The results show that the risk of premarital teen pregnancy is nearly four times as high for those who have used illicit drugs other than marijuana as for those with no history of any prior substance involvement. Furthermore, illicit drug use increases the likelihood of an abortion by a factor of 5. Program integration is proposed to address adolescent fertility and substance use: programs directed at adolescent pregnancy might include components on substance use, and contraceptive education might be included in drug intervention programs.

- 157 Meyer, J. M., & Neale, M. C. (1992). **The relationship between age at first drug use and teenage drug use liability.** *Behavior Genetics*, 22(2), 197-213.

Analyses of a simulated data set of substance abuse in a cohort of adolescent twins were aimed at determining the relationship between age at first drug use and ever having used drugs (i.e., teenage drug use liability). Three analytic methods were used to determine whether age at first drug use was (a) a "perfect" index of drug use liability; (b) correlated in relatives but conditionally independent of drug use liability; or (c) causally influenced by drug use liability and by factors independent of liability. The analytic methods included nonmetric multidimensional scaling, multifactorial threshold model-fitting to contingency tables, and pedigree-based likelihood formulations for the raw data. All approaches indicated that age at first drug use was a perfect index of drug use liability. Further, model-fitting results indicated that only shared environmental factors accounted for twin similarity in the onset and timing of drug use.

- 158 Moore, D. D., & Forster, J. R. (1993). **Student assistance programs: New approaches for reducing adolescent substance abuse.** *Journal of Counseling and Development*, 71, 326-329.

School-based Student Assistance Programs (SAPs) are designed to reduce adolescents' substance abuse. SAPs, modeled after Employee Assistance Programs (EAPs) in the workplace, are identifying, assessing, referring, and managing the cases of substance-abusing students. Adoption of the SAO model is accelerating in response to the growing need to address substance-impaired youth with resources from both the school and the community.

- 159 Moore, J., Campana, J., Lam, M., Sandau-Christopher, D., Sadler, J., Scalise, D., Gay, N., Stalvey, R., Schroeder, J., Pelton, J., Beihr, B. J., Jarris, J., Strunk, N., Chiotti, R., Owens-Nausler, J., Grenert, B., Chioda, D., Cole, D., Meurer, K., Abelson, G., Sheffield, A., Ruzicka, P., Balsley, C., Sutter, M., Cherneco, M. d. P., Fraser, J., Carr, M., Word, E., Simpson, P., Lacy, L., Tye, S., Nehls-Lowe, B., & Anderson, B. (1992). **Tobacco, alcohol, and other drug use among high school students: United States, 1991.** *MMWR: Morbidity and Mortality Weekly Report*, 41(37), 698-703. Reprinted in *JAMA*, 268(14):1841-1842.

Self-reported data are presented about the prevalence of tobacco, alcohol, marijuana, and cocaine use among students in grades 9-12 from two school-based components of the Youth Risk Behavior Surveillance System: (a) state and local Youth Risk Behavior Surveys (YRBSs) conducted by departments of education in 23 states and 10 cities during the spring of 1991 and (b) the national YRBS conducted during the same period, which included data from 12,272 students in grades 9 through 12. Among the state and local surveys, cigarette smoking varied considerably: 49%-

82% of students (median: 71%) reported having tried cigarette smoking during their lifetime; 6%-31% of students (median: 24%) reported smoking at least one cigarette during the 30 days preceding the survey; and 2%-17% of students (median: 12%) reported frequent cigarette use (smoking on 20 or more of the 30 days preceding the survey) during the 30 days preceding the survey. Rates of lifetime, current, and frequent cigarette use were similar for male and female students in almost all sites. Use of smokeless tobacco also varied among sites: 2%-20% of students (median: 11%) reported using smokeless tobacco during the 30 days preceding the survey. Rates of smokeless tobacco use were higher for male than female students in all sites. Among the state and local surveys, rates of alcohol consumption showed similar variation: 50%-87% of students (median: 77%) reported having consumed alcohol during their lifetime; 24%-60% of students (median: 46%) reported that they had consumed alcohol at least once during the 30 days preceding the survey. Episodic heavy drinking among students varied from 12% to 43% (median: 27%). Rates of lifetime and current alcohol consumption were similar for male and female students within most sites; however, in every site, male students reported higher rates of episodic heavy drinking than female students. Lifetime and current use of marijuana varied considerably among the state and local surveys: 8%-41% of students (median: 26%) reported lifetime use of marijuana at least once during the 30 days preceding the survey. In almost all sites, rates of marijuana use were higher for male than female students. Lifetime and current use of cocaine and lifetime use of steroids also varied among sites: 2%-9% of students (median: 5%) reported lifetime use of cocaine, 1%-4% of students (median: 2%) reported current use of cocaine, and 2%-5% of students (median: 4%) reported lifetime use of steroids. For all behaviors, the national prevalence estimates were similar to the median prevalence estimates from the state and local surveys.

- 160 Muramoto, M. L., & Leshan, L. (1993). **Adolescent substance abuse: Recognition and early intervention.** *Primary Care, 20*(1), 141-54.

Adolescent substance abuse is a common problem, with 90% of high school seniors reporting alcohol use and nearly half reporting some illicit drug use. Substance abuse interferes with the developmental tasks of adolescence: establishing an adult identity, achieving independence from parents and family, and learning to form intimate relationships with others. Although not all adolescent substance abuse leads to chemical dependency, even initial experimentation can have disastrous or fatal consequences. The early signs and symptoms of substance abuse are subtle, frequently presenting as behavioral changes, and less often as physical or laboratory findings. Early stages of substance abuse may be treated by the primary care physician in outpatient treatment settings. More advanced stages usually require inpatient treatment and should be referred to specialists in adolescent substance abuse treatment. Family involvement is a critical part of the treatment process. In addition to a key role in the early diagnosis, intervention, and referral of substance abuse problems, the primary care physician is an important source of support, reinforcement, and continuity in the aftercare program once the adolescent has completed initial substance abuse treatment.

- 161 Murray, D. M., Perry, C. L., Griffin, G., Harty, K. C., Jacobs, D. R., Schmid, L., Daly, K., & Pallonen, U. (1992). **Results from a statewide approach to adolescent tobacco use prevention.** *Preventive Medicine, 21*, 449-472.

The Four Group Comparison Study was a prospective study of 48 school "units" which were randomly assigned to one of four conditions in 1987. Baseline observations were taken in the 6th grade in 1987, interventions were delivered in the 7th grade, and follow-up observations were taken in the 7th, 8th, and 9th grades. The Four Group Comparison Study was designed to evaluate the three middle-school interventions that were most widely adopted by Minnesota school districts as a result of the 1985 legislation. The Two State Comparison Study was a serial cross-sectional study of representative districts in Minnesota and Wisconsin. Annual surveys of 9th-graders were conducted from 1986-1990. The Two State Comparison Study was designed to determine whether tobacco-use patterns changed in Minnesota relative to Wisconsin following the Minnesota legislation. The prospective study indicated that none of the interventions was more effective in reducing adolescent tobacco use compared with a randomized control group. The serial cross-sectional study revealed that there was a modest net decline in Minnesota relative to Wisconsin from 1986 to 1990, but that it was within the range of chance variation. Taken together, these results indicate that this legislative initiative was insufficient to reduce adolescent tobacco use statewide during the 5-year study period. Together with results from other recent studies, they suggest that even more intensive efforts may be required to effect widespread reductions in adolescent tobacco use.

- 162 Myers, M. G., Brown, S. A., & Mott, M. A. (1993). Coping as a predictor of adolescent substance abuse treatment outcome. *Journal of Substance Abuse, 5*, 15-29.

The question was examined whether skills for coping with relapse-risk situations, assessed during treatment, can predict outcome in adolescents treated for drug and alcohol abuse. After the exclusion of individuals who evidenced low commitment to change, who were institutionalized following treatment, or for whom outcome data were unreliable, analyses were conducted on 57 adolescents. It was hypothesized that coping factors reflecting problem-focused, social-support, self-blame, and wishful-thinking strategies would predict 6-month outcome status. A multiple regression analysis found that the coping factors accounted for significant variance in the prediction of a composite measure of treatment outcome and also predicted variables reflecting total days using and initial length of abstinence. Examination of the influence of coping factors in relation to outcome revealed that wishful thinking and social support contributed significantly to the prediction of total days using and length of initial abstinence, respectively. These findings were interpreted to suggest that one's cognitive approach to coping may impact drug and alcohol relapse by reducing appraised stress in a relapse-risk situation and, thus, decreasing active coping efforts. Additionally, these results highlight the importance to successful outcome of utilizing social resources. The findings are interpreted to suggest that interventions aimed at cognitive aspects of coping and enhancing social support in substance abusing teens may be useful in preventing relapse.

- 163 National Institute on Drug Abuse. (1992). *Prevalence of drug use in the DC metropolitan area household population: 1990*. Washington, DC, Metropolitan Area Drug Study: Technical report 1. (DHHS Publication No. ADM 92-1919). Washington, DC: U.S. Government Printing Office.

As part of the 1990 National Household Survey on Drug Abuse, the District of Columbia Metropolitan Statistical Area (DC MSA) was oversampled in order to provide estimates of metropolitan drug use prevalence, which is not generally possible for the Household Surveys because the urban samples are too small to provide reliable estimates. An overview is provided of the prevalence of the use of alcohol, tobacco, and other drugs (ATOD) in the DC MSA household population, and for four age groups: youth 12-17; young adults 18-25; middle adults 26-34; and older adults 35 and over. Other issues examined included demographic correlates of illicit drug, alcohol, and tobacco use; problems associated with drug use, patterns of illicit drug and alcohol use; perceived harmfulness; and perceived opportunities to use drugs. Prevalence findings were broken down by age group as well as by other demographic factors. Among the 440 youth in the sample, some alcohol use was reported by 45.3%, past year 40.6%, past month 21.0%; and 1.9% reported heavy alcohol use in the past month. The prevalence of any illicit drug use was 20.0%, past year 11.6%, and past month 4.9%. The percentage reporting any marijuana use was 10.1%, past year 7.2%, and past month 3.3%; and 31.8% reported having had an opportunity to use marijuana in their lifetime. Among White youth, 17.9% of males and 6.5% of females reported some marijuana use in their lifetimes (for gender breakdown among Blacks precision was too low to report). Some use of cocaine was reported by 2.6% of the youth, and 16.0% reported that they had ever had an opportunity to use cocaine. Some lifetime cigarette smoking was reported by 34.2%, past year 19.3%, past month 11.7%. For past month cigarette smoking, 89% reported none, 8.3% less than a pack per day, and 2.6% reported smoking a pack or more per day. Past-year problems resulting from their use of illicit drugs, alcohol, or tobacco were reported by 14.0% of the youth, and three or more problems by 5.4%. Of past-year drinkers 50.2% reported problems with drinking, and 25.4% reported three or more problems. On average, cigarette use was initiated earlier than alcohol and most illicit drugs. Average age of first use of cigarettes was 14.9 years, versus 17.2 for alcohol. For illicit drugs average age of first use ranged from 16.8 years for inhalants to 21.0 for cocaine. As part of an analysis of ATOD use by women of child-bearing age, data on past year use was reported for females aged 15-19: any illicit drug 21.0%, marijuana 18.9%, alcohol 59.8%, and cigarettes 31.2%.

- 164 Newcomb, M. D., & Felix-Ortiz, M. (1992). Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. *Journal of Personality and Social Psychology, 63*(2), 280-296.

A conceptual elaboration was developed that incorporates many risk and protective factors, and both direct and moderating (buffering) influences on drug involvement were tested. From prospective data, 14 factors related to drug use were selected and assigned empirically to either a multiple protective index (PFI) or a risk factor index (RFI). Analyses examined the relationships of the RFI, PFI, and their interaction on measures of cigarette, alcohol,

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cannabis, cocaine, and hard drug use cross-sectionally in late adolescence and later in young adulthood. These same variables were used to predict alcohol, cannabis, and cocaine abuse 8 years later. Vulnerability as measured by the RFI, PFI, and their interaction was highly associated with drug use in adolescence, moderately associated with certain types of drug use in young adulthood, and strongly associated with heightened drug problems in adulthood.

- 165 Newton, M. (1992). **Living again: Family treatment at KIDS of North Jersey.** *Journal of Substance Abuse Treatment*, 9(1), 71-80.

The family treatment concept advocated by the KIDS program includes 5 movements of recovery for codependent families of adolescents with an addictive disease. The focus is on the specific cognition, affectation, and behavior of individual parents and siblings, but each movement has a clear dimension related to the family system itself. The movements are to break denial, unhook from the user, resolve issues and resentments, develop detachment, and develop a personal, healthful lifestyle.

- 166 Novello, A. C., & Shosky, J. (1992). **From the Surgeon General, US Public Health Service.** *JAMA*, 268(8), 961.

Recent studies conducted at the request of the U.S. Surgeon General by the Department of Health and Human Services Office of the Inspector General have documented widespread underage drinking. The findings of the Inspector General's June 1991 report, *Youth and alcohol: National survey—drinking habits, access, attitudes, and knowledge* are reported.

- 167 Oei, T. P. S., & Baldwin, A. R. (1992). **Smoking education and prevention: A developmental model.** *Journal of Drug Education*, 22(2), 155-181.

A developmental approach to smoking education and prevention for children and adolescents is proposed. Literature is reviewed concerning the most appropriate agent, content, and presentation, of anti-smoking education for each of three age groups: children to age 10, pre/early adolescents 11 to 15, and adolescents 15 to 18. For children to age 10, it is suggested that parents are the best agents of education, with teachers, peers, and the mass media, also playing some role. For pre/early adolescents, peers are suggested as the best agents of education, building onto the earlier and ongoing work of the agents mentioned above. For adolescents, the role of the media hero-figure is discussed. It is emphasized that sources of influence may function additively in affecting the child or adolescent's decisions about smoking, and that education in each stage must build on the stage before.

- 168 Oetting, E. R. (1992). **Planning programs for prevention of deviant behavior: A psychosocial model.** *Drugs & Society*, 6, 313-344.

A psychosocial model based on peer cluster theory and aimed at the prevention of deviant behaviors is presented. The fundamental theorem that underlies the model is that deviant attitudes and behaviors are psychosocial in origin, a product of the interaction of psychological, social and cultural characteristics. The model further postulates the following: (1) Adolescence is a critical time in the evolution of deviant behaviors. Prevention programs, therefore, should include a major focus on youth. (2) Deviant attitudes and behaviors are a product of socialization, of learning norms through social interactions. (3) The primary socialization forces in a youth's life consists of the family, the school, and peer clusters. (4) The influence of secondary socialization forces, including the community, religion, the extended family, media, and peers in general, is less than and is usually mediated through the primary socialization links. (5) Any socialization link can transmit deviant norms, but healthy family and school systems are more likely to transmit non-deviant norms. (6) Peer clusters can transmit either deviant or non-deviant norms, but the major source for deviant norms is likely to be peer clusters. (7) Weak bonds between the child, the family, and/or the school increase the chances that the child will become a member of a deviant peer cluster. (8) Prevention programs to reduce deviant behaviors should reduce risk factors and increase resilience in order to promote strong bonds between the child, the family, and school, and peer clusters and should ensure that these bonds are utilized to communicate non deviant norms.

- 170 Orenstein, A., Davis, R. B., & Wolfe, H. (1993). **Parental substance abuse treatment and adolescent problems.** *Journal of Alcohol and Drug Education, 38*(2), 50-61.

During the fall of 1990, grade 11 students from a predominately Irish and Italian working-class area near Boston completed questionnaires ($N = 224$). No parental substance abuse was reported by 152 students, 40 students indicated distress over parental drinking but no treatment, and 22 indicated that a parent had been in treatment. Students who were distressed or discomforted by their parents' drinking did not differ from other youth on the outcomes measured by this study. However, students who said their parents had been treated for alcohol and drug problems did more frequently report some problems, including substance use, delinquent behavior, and eating disorders. These differences could not be explained by a differential willingness to report negative information.

- 171 Padilla, A. M., & Salgado de Snyder, V. N. (1992). **Hispanics: What the culturally informed evaluator needs to know.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 117-146). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

Alcohol and other drug (AOD) abuse is a significant social problem among Hispanics. This chapter presents information that will give program evaluators a better understanding of the sociocultural diversity found among the various Hispanic groups in the United States. Factors that contribute to successful social and psychological integration of Hispanics are discussed because of their relevance to possible AOD use by this population and because such information is critical if prevention and intervention programs are to succeed. The chapter focuses particular attention on women, immigrants, and youth, groups that are particularly prone to be at high risk for psychological distress. The chapter takes the position that successful evaluation of social programs necessitates knowledge of the Hispanic community and of the conditions that place an individual at risk for misusing or abusing alcohol and other drugs.

- 172 Page, R. M. (1993). **Perceived physical attractiveness and frequency of substance use among male and female adolescents.** *Journal of Alcohol and Drug Education, 38*(2), 81-91.

The relationship between perceived physical attractiveness and frequency of substance use was investigated among 1,297 adolescents. In addition, the interaction between perceived physical attractiveness and weight status (overweight, normal weight, or underweight) was determined. Adolescent females who rated themselves as unattractive were more than four times as likely to use illicit psychoactive substances (cocaine, marijuana, hallucinogens, amphetamines) than those who rated themselves as average-looking or attractive. Further, females who saw themselves as unattractive and underweight were 6 to 10 times more likely to use illicit psychoactive substances than any other classification group of adolescent females. Perceived attractiveness did not contribute to differences in substance use in adolescent males, except in the case of smokeless tobacco. Males who perceived themselves as unattractive used smokeless tobacco at a significantly greater frequency than those who believed they were more physically attractive. There were no significant relationships between perceived physical attractiveness and the use of alcohol or cigarettes for either males or females.

- 173 Page, R. M., Allen, O., Moore, L., & Hewitt, C. (1993). **Co-occurrence of substance use and loneliness as a risk factor for adolescent hopelessness.** *Journal of School Health, 63*(2), 104-108.

A possible link between hopelessness and illicit substance use coinciding with loneliness was investigated among a sample of 1,915 students (73% White, 25% Black) in grades 10-12 at seven randomly selected high schools in one central Mississippi school district. Relative risk of scoring within the severe hopelessness range was 6.9 for non-substance users who were lonely and 4.2 for substance users who were not lonely. Yet, relative risk for severe hopelessness in substance-using lonely adolescents was 25.2. Lonely, substance-using adolescents were 25 times more likely to be severely hopeless than the reference group composed of non-substance using, not-lonely adolescents. Lonely adolescents who get drunk also were 15.9 times more likely to be severely hopeless than the

reference group. Because hopelessness often is an indicator of suicidal behavior, these results may have important implications for school health adolescent suicide prevention efforts.

- 174 Pascale, P. J., & Evans, W. J. (1993). **Gender differences and similarities in patterns of drug use and attitudes of high school students.** *Journal of Drug Education, 23*(1), 105-116.

The results of a 1989 drug survey of 2,000 high school students were analyzed in the context of baseline data provided by four previous surveys, comprising approximately 8,000 respondents. These surveys collected self-report data drug use, perceived harmfulness, age of first use, and reasons for use, from the same 15 northeastern Ohio high schools at three-year intervals beginning in 1977. The instrument elicited information on any lifetime use of 14 categories of drugs. Across those 14 categories, only two did not show decreases in reported use from the 1986 to 1989 surveys: use of coffee increased for both genders, and use of alcohol increased among females. Marijuana remained the most commonly used illicit substance in 1989 with prevalence rates at 30% for both males and females. This was the first survey which did not find a significant gender difference on marijuana use. The largest gender difference, across the five survey waves, was for smokeless tobacco, which 53% of 1989 males reported having used, compared to 7% of females: both genders showed significant decreases. Females reported higher percentages of use of aspirin, amphetamines, and barbiturates. The percentage of respondents reporting the perception that particular drugs are harmful reached five-wave highs for all categories except coffee. Aspirin was least often perceived as harmful, and the largest increase in the percentage rating a category was harmful was for smokeless tobacco. Females reported significantly higher percentages perceiving as harmful nine of the categories. No gender differences were found in the reasons students gave for turning to drugs: both genders reported curiosity and relaxation, in that order, most often. The rank order of reasons for use has remained constant since 1977. The 1989 survey showed age of first use, averaged across the 14 categories to be about six months later for females than for males. These findings indicate that education about harmfulness of drugs has been successful, but that this has not been effective as a total prevention method.

- 175 Paulucci, C. J. (1992). **Suburban students' awareness, attitudes, and use of alcohol and other drugs, grades 6 through 12.** Ph.D. dissertation. Ohio State University, Columbus, OH). *Dissertation Abstracts International 53*(5): 1409A-1410A.

Comparisons were made of the students, grades 6-12 in a suburban school district, who took the Primary Prevention Awareness, Attitude and Use Scales (PPAAUS) during the 1988-89 school year and again in 1991-92. Comparisons were also made between the suburban students in 1991-92 and comparable grade levels in the other 18 school districts in the country participating in a Drug-Free Schools and Communities Consortium. The findings indicated that the significant changes between 1988-89 and 1991-92 included generally lower use of alcohol and other drugs, except for the increased use of inhalants in grades 10, 11, and 12, and increased use of smokeless tobacco and cigarettes for 8th-graders; increased participation in alternative activities; less likelihood of turning to adult resource persons for help with a drug problem; fewer incidents of negative behavior; and continued high positive feelings about school, teachers, subjects, and classmates. While changes occurred in decision-making factors, no pattern was discernible. When compared with the County District, the Study District revealed higher general alcohol use among once or twice a month drinkers, more abstainers, and fewer daily and weekly drinkers; higher use of cigarettes in grades eleven and twelve; lower incidents of negative behaviors, except for getting drunk in 11th and 12th grade, higher perceived grade averages; more favorable attitudes about school, subjects and teachers; and less likelihood to turn to an adult resource person with a drug problem.

- 176 Perry, C. L., & Kelder, S. H. (1992). **Models for effective prevention.** *Journal of Adolescent Health, 13*(5), 355-363.

The social influence models do provide some optimism for primary prevention efforts. Prevention programs appear most effective when (a) the target behavior of the intervention has received increasing societal disapproval (such as cigarette smoking); (b) multiple years of behavioral health education are planned; and (c) community-wide involvement or mass media complement a school-based peer-led program. Short-term programs and those involving alcohol use have had less favorable outcomes. Future research in primary prevention should address concerns of high-risk groups and high-risk countries, such as lower income populations in the United States or countries that have large adolescent homeless populations. The utilization of adolescent leaders for program dissemination might be

particularly critical in these settings. A second major and global concern should focus upon alcohol use and alcohol-related problems. In many communities adolescent alcohol use is normative and even adult-supported. Thus, young people are getting quite inconsistent messages on alcohol from their schools, from TV, from peers, and from parents. This inconsistency may translate into many tragic and avoidable deaths for young people. Clearly, in the area of alcohol-related problems, community-wide involvement may be necessary. A third direction for prevention research should involve issues of norms, access, and enforcement including policy interventions, such as involve the availability of cigarette vending machines or the ease of under-age buying or levels of taxation. These methods affect adolescents more acutely since their financial resources, for the most part, are more limited. These policy level methods also signify to adolescents what adults consider appropriate.

- 177 Perry, C. L., Kelder, S. H., Murray, D. M., & Klepp, K. (1992). **Communitywide smoking prevention: Long-term outcomes of the Minnesota Heart Health Program and the Class of 1989 Study.** *American Journal of Public Health, 82*(9), 1210-1216.

The Class of 1989 Study is part of the Minnesota Heart Health Program (MHHP), a population-wide research and demonstration project designed to reduce cardiovascular disease in three educated communities from 1980 to 1993. This paper describes an intensive, school-based behavioral intervention on cigarette smoking, comparing long-term outcomes in one of the intervention communities with those in a matched reference community. Beginning in 6th grade (1983), seven annual waves of cohort and cross-sectional behavioral measurements were taken from one MHHP intervention community and its matched pair. All students in each community were eligible to participate (baseline $N = 2,401$). Self-reported data collected at each period described prevalence and intensity of cigarette smoking. There were no differences at baseline for either weekly smoking prevalence or intensity of smoking. Throughout the follow-up period, however, smoking rates as determined by these measures were significantly lower in the intervention community: 14.6% of students were weekly smokers at the end of high school compared with 24.1% in the reference community. These results suggest that multiple intervention components such as behavioral education in schools, booster programs to sustain training, and complementary community-wide strategies may all be needed for lasting reductions in adolescent tobacco use.

- 178 Perry, C. L., Williams, C. L., Forster, J. L., Wolfson, M., Wagenaar, A. C., Finnegan, J. R., McGovern, P. G., Veblen-Mortenson, S., Komro, K. A., & Anstine, P. S. (1993). **Background, conceptualization and design of a community-wide research program on adolescent alcohol use: Project Northland.** *Health Education Research: Theory & Practice, 8*, 125-136.

Project Northland is a community-wide research program funded by the National Institute on Alcoholism and Alcohol Abuse, for a 5-year period (1990-95). The aim of the study is to prevent or delay onset of alcohol use among young adolescents, as well as to reduce use among those who are already drinkers. Twenty communities were recruited in northeastern Minnesota, an area referred to as the Northland, Arrowhead, or Iron Range region, and then were randomly assigned to either Education or Delayed Program conditions. The 10 Education school districts agreed to participate in 3 years of intervention programs in schools, with parents and in the community-at-large. One group of young adolescents, the Class of 1998 (6th-grade students in the 1991-92 school year), form the study cohort. Surveys (1991-94) of the Class of 1998, their parents, community leaders and alcohol merchants were the primary components of the program's evaluation. Many conceptual and methodological questions emerged during the development of the research protocols for Project Northland over the past 2 years. These questions are the impetus for this article. Specifically, the focus on young adolescents and alcohol use was selected, as contrasted with older adolescents or with multiple problem behaviors. The project was designed using a community-wide mode that addresses both supply and demand issues, rather than limited to a school-based model. Intervention strategies and evaluation methods were chosen that could address community-level as well as individual-level behavior change, which required the development and application of new technologies. The rationale for these decisions may be useful to others considering community-wide health promotion efforts.

- 179 Peterson, P. L., Hawkins, J. D., & Catalano, R. F. (1992). **Evaluating comprehensive community drug risk reduction interventions.** *Evaluation Review*, 16(6), 579-602.

Comprehensive community interventions pose several challenges to rigorous evaluation design. This article summarizes the recommendations for a feasible and rigorous design that were formulated by a 1991 conference on the evaluation of comprehensive community interventions. One such comprehensive intervention strategy for drug risk reduction called Communities That Care illustrates the points discussed. Conference participants recommended a multisite experimental trial of matched community pairs randomized into intervention and comparison conditions. In this design, randomization occurs at the community level. The implications of this design for community selection, sample size, and power are discussed.

- 180 Pierce, J. P., Farkas, A., Evans, N. J., Berry, C., Choi, W., Rosbrook, B., Johnson, M., & Bal, D. G. (1993). **Tobacco use in California 1992. A focus on preventing uptake in adolescents.** Sacramento, CA: California Department of Health Services.

Evidence of progress is reviewed toward achieving the goals set for the California Tobacco Control Program that was funded by the voter-sponsored Tobacco Tax Initiative (Proposition 99 of 1988). Three overall conclusions on the impact of the Tobacco Control Program through 1992 and on the major barriers to the Program's success with adolescents are presented: (1) Tobacco use in California has declined since the beginning of the Tobacco Tax Initiative. Some of this decline was associated with the introduction to the Initiative and the Tax. However, a good proportion of the decline in prevalence may be attributed to the interventions funded by the tax initiative; (2) Smoking prevalence among adults has decreased by 23.6% since 1988. This is a more rapid decline than had occurred prior to 1988 and smoking prevalence is on target to reach the 1999 goal of 6.5% smoking prevalence among adults in California. In 1992, 20.0% of adults over 18 years of age were smokers; (3) Analysis of trends in adolescent smoking behavior produced mixed results. We observed some signs of reduced initiation among young teenagers. We introduce a new measure of susceptibility to smoking to permit more direct assessments of program impact in future years. Approximately 40% of California adolescents were susceptible if they are not absolutely sure that they won't smoke in the near future.

- 181 Pride, Inc. (1992). **1991-92 National summary: Grades 6-12.** Atlanta, GA: Pride, Inc.

School students in grades 6-12 ($N = 212,802$) responded to questionnaires about drug use in 10 categories: cigarettes, beer, wine coolers, liquor, marijuana, cocaine, uppers, downers, hallucinogens (such as LSD) and inhalants. The results showed that among students in 9-12 grades, drug use rose in all categories except marijuana, cocaine and wine coolers. The largest increase was in LSD use: 5.3% of all high school students reported using the drug. Among junior high students, drug use rose in all 10 categories, including a 20% increase in LSD, 15% for cocaine and 7% for marijuana. Drug use among Blacks rose in all categories. Data on alcohol use indicated that (a) of the 31.6% of junior high students who drank beer in the present sample, 11.1% said they most often became "very high" or "bombed" when they drank; and (b) of the 56.5% of senior high students who drank beer in the present sample, 23.9% said they most often became "very high" or "bombed." Beer and wine coolers were the most commonly cited intoxicants by American students in the 1990-91 survey.

- 182 Raniseski, J. M., & Sigelman, C. K. (1992). **Conformity, peer pressure, and adolescent receptivity to treatment for substance abuse: A research note.** *Journal of Drug Education*, 22(3), 185-94.

To explore the possibility that peer influences not only contribute to adolescent substance abuse but also shape feelings about being in treatment for substance abuse, 40 adolescent inpatients at a Tucson, Arizona facility were surveyed. Misconduct, including substance abuse, was predicted best by perceived peer pressure toward misconduct, low opinions of the value of treatment by disposition to conform to antisocial peers, and sense of stigma associated with being treated by perceived peer pressure conformity. Concerns over peer acceptance may be one basis for resistance to substance abuse treatment.

- 183 Rinchuse, D. J., Rinchuse, D. J., Browdie, G. S., Kenney-Ciarimboli K., Bucci, C. A., & Pritts, R. M. (1992). Demographic and psychosocial characteristics of western Pennsylvania school-age tobacco users. *Journal of Dentistry for Children*, 59(6), 425-36.

A 25-item tobacco usage questionnaire was presented to 2,189 subjects in grades 1-12 in a school district in Western Pennsylvania. It was found that 30% of the subjects were former or current cigarette smokers. Approximately 20% of the subjects reported using snuff, while approximately 16% reported using chew. Use of smokeless tobacco was found to be associated with such variables as grade level, school grade-average, parents' education, parents' use of tobacco, peer tobacco usage, and participation in certain sports.

- 184 Rohrbach, L. A., Graham, J. W., & Hansen, W. B. (1993). Diffusion of a school-based substance abuse prevention program: Predictors of program implementation. *Preventive Medicine*, 22, 237-260.

Diffusion of a psychosocial-based substance abuse prevention program was examined, including: (a) teacher adoption, implementation, and maintenance; (b) teacher characteristics associated with implementation; (c) the relationship between integrity of program delivery and program outcomes; and (d) the effectiveness of teacher training and school principal involvement in increasing implementation. Participants were 60 teachers, 25 school principals, and 1,147 5th-grade students from four Los Angeles area school districts. Districts were randomly assigned to an intensive or brief teacher training condition. Schools were randomly assigned to a principal-intervention or a no-principal-intervention condition. Assessment included teacher and principal self-reports, classroom observations of program delivery, and evaluation of immediate program outcomes. During the first year, 78% of trained teachers implemented one or more program lessons. During the second year, only 25% maintained implementation of the program. Implementors reported fewer years of teaching experience and stronger self-efficacy, enthusiasm, preparedness, teaching methods compatibility, and principal encouragement than did nonimplementors. The principal intervention increased rates of implementation, but the intensive teacher training did not. Integrity of program delivery was positively associated with immediate program outcomes. Program implementation was highly variable, suggesting that widespread teacher use of psychosocial-based programs cannot be taken for granted. Strategies for increasing implementation and maintenance need to be developed.

- 185 Roland, J. E. (1992). Who do children and adolescents trust to give them accurate alcohol and drug information? A study in developmental, familial, peer, school and mass media effects. Ph.D. dissertation. California School of Professional Psychology, Los Angeles, CA). *Dissertation Abstracts International* 53(7): 3790-B-3791-B.

Five areas were examined: developmental trends, and effects of family, peer, school, and mass media. Hypotheses tested differences between trust in individuals and information presentations and grade levels, genders, and family types. The relationships between trust and six month drug use, perceived peer drug use, what youth learn in school and whether they perceive it as useful were also examined. It was expected that as grade increased, trust in parents, educators, and school information would decrease. Hypotheses also postulated that for peers, siblings, celebrities, and mass media information trust would increase across grade. Also hypothesized was that children who did not live with both parents would have decreased trust levels and higher six month drug use rates. Subjects were students in grades 5, 6, 7, 9, and 11 of the Ventura County (California) public school system. Approximately equal numbers of male and females, including White, Hispanic, Asian, Black, and Native Americans participated ($N = 1,981$). Participants filled out The TMG Youth Survey, Form: 46 and 712 at school. Statistical methods used were univariate and multivariate analyses of variance, and bivariate correlations. Results indicate that as grade increases, trust decreases in parents, educators and information presented in school, celebrities, and information presented on television or in the movies. Trust in peers and older siblings remains constant as grade increased. Gender did not influence trust. Six-month drug use increased as grade increased and was higher for those not living with both parents. There was a positive correlation between trust in peers and perceived peer substance use. Mass media information was negatively correlated with six-month drug use, more for females than males. Therefore, as grade increases trust in those most capable of providing accurate alcohol and other drug information decreases. This substantiates the need for more trusting relationships between children and adults.

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- 186 Romero, F., Bailey, J., Brown, J., Carr, C., Fiaherly, J., Fleming, T., Gaynor, J., Houle, D., Karam, R., Lark, M., Martino, T., & Pollard, J. (1993). *California programs to prevent and reduce drug, alcohol, and tobacco use among in-school youth: An interim report about tobacco use*. Los Alamitos, CA: Southwest Regional Laboratory.

In 1988 the voters of California passed Proposition 99. Subsequent legislation, Assembly bills 75 and 99, created the Tobacco Use Prevention Education (TUPE) program. This program is part of the California Department of Education's (CDE's) Drug, Alcohol, and Tobacco Education (DATE) program. Today TUPE programs operate in almost every elementary, middle and senior high school statewide. DATE programs in California are attempting to educate youth about the unhealthy aspects of smoking, including cigarette use, smokeless tobacco use, and second-hand smoke. The evaluation of these programs will take three years. Preliminary data from the second year, however, reveal that the TUPE effort is effective in educating youth about the unhealthy aspects of smoking, in decreasing the number of young people who become regular smokers, and in ensuring that smoking is viewed as an unhealthy behavior. Nevertheless, by the time they finish high school, over half of California's students experiment with smoking, but fewer than 5% of the students in grades 7-12 actually become daily smokers. This compares with a prevalence rate of 22% among the California adult population.

- 187 Rose, R. L., Bearden, W. O., & Teel, J. E. (1992). *Attributional analysis of resistance to group pressure regarding illicit drug and alcohol consumption*. *Journal of Consumer Research*, 19(1), 1-13.

Four studies of the role of attributional thinking in the generation of resistance to pressures toward conformity in illicit alcohol consumption and the use of drugs by high school and college students are described. The study results provide evidence that young people engage in casual reasoning when exposed to peer pressures to drink alcohol and use drugs. Attributional thinking is associated with a reduction in conformity and external attributions for a peer group's behavior are associated with stronger dissent than internal attributions. It is suggested that attributional processing may be a mechanism for reducing conformity. Intervention strategies should identify those types of attributions that should be encouraged and those that should be avoided.

- 188 Ross, J. G., Saavedra, P. J., Shur, G. H., Winters, F., & Felner, R. D. (1992). *The effectiveness of an after-school program for primary grade latchkey students on precursors of substance abuse*. *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 22-38.

This investigation focused on demonstrating and evaluating whether an alcohol and other drug use prevention program operating after school in 24 low-income primary schools could reduce certain precursors of alcohol and other drug use thought to place latchkey youth at particularly high risk, including low self-esteem. The intervention strategies consisted of having children participate daily for 144 days in 2-hour sessions consisting of supervised homework, self-esteem-building exercises, free play, and, during a 7-week period, creative dramatics. Data were collected regarding 888 program participants and a comparison group from three sources (parents, teachers, and school/program records) which indicated that the curriculum did not have measurable positive effects on any of the personality variables (self-esteem, depression, risk-taking) nor did it have measurable positive effects on in-classroom behavior. Further, there was no overall effect on performance on standardized achievement tests. However, there was a statistically significant interaction effect between participation in the self-esteem-building exercises and improvements on standardized achievement tests. This means the program, as a whole, is effective in achieving its most immediate intended outcome, the improvement of academic performance. In a longer-term follow-up, it can be speculated that this will reduce the likelihood of school failure and improve self-esteem.

- 189 Rotheram-Borus, M. J. (1993). *Suicidal behavior and risk factors among runaway youths*. *American Journal of Psychiatry*, 150(1), 103-7.

The goal of this study was to describe suicide attempts and risk factors among runaway adolescents. A structured interview format was used to assess suicidal behavior and suicide-related risk factors among a consecutive series of 576 predominantly Black or Hispanic runaway adolescents at intake into (6) publicly-funded runaway programs in

New York City over a 2-year period. There were no significant differences in age, gender, race/ethnicity, education, or socioeconomic status among the adolescents at the four runaway program sites. Thirty-seven percent of the youths had previously attempted suicide, and 44% of the attempters had made an attempt within the previous month. Females were significantly more likely than males to have attempted suicide and to be depressed. Male runaways were far more likely to have attempted suicide than nonrunaway male adolescents described in previously published reports. Runaways with histories of attempting suicide were significantly more likely to be currently suicidal and depressed. This study indicates the need for systematic screening of runaway adolescents for suicidal ideation at residential shelters for youths.

- 190 Ruch-Ross, H. S. (1992). **The child and family options program: Primary drug and alcohol prevention for young children.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 39-54.

The Child and Family Options Project (CFO) of The Ounce of Prevention Fund was a primary drug and alcohol prevention program for kindergarten aged children and their mothers. This demonstration project, funded by the federal Office for Substance Abuse Prevention, was based on a family-support model designed to impact child and family characteristics believed to be precursors of later alcohol and other drug use. The primary components of the program were structured, center-based parent-child activities, parent meetings and trainings, and monthly family outings. The program was located in a large public housing project in Chicago. A total of 57 families participated at some point during approximately 15 months of program operation; 32 comparison group members participated at pretest. All participants were African Americans from predominantly single female-headed, low-income households. The outcome evaluation of CFO used a quasi-experimental, nonequivalent control group design. Standardized measures of locus of control, perceived competency, family coping, and parental values were supplemented by staff observations and exit interviews with core participants. There were no statistically significant differences on the standardized measures between the 32 program participants and 22 comparison group members interviewed at posttest. Encouraging findings included positive trends in returning to school and seeking drug and alcohol treatment, relationships between program attendance and change on some subscale scores, and participant self-report of the program benefits. The findings suggest a modest but positive program effect over a relatively short period of time. Program replication would be warranted, but such efforts must attend to the need for larger sample size and a longer period of time for program implementation.

- 191 Rueter, P. (1993). **Prevalence estimation and policy formulation.** *Journal of Drug Issues*, 23(2), 167-184.

Prevalence estimation has a potentially important role in drug policy decision making. To date, however, it has played only a modest role in decisions at the national level, though it has come to be important in the rhetoric of national drug policy. This limited influence arises from the limited capacities and credibility of the estimates on the one hand and the highly moralistic nature of the policy process surrounding the illicit drug issue on the other. The available numbers are developed either systematically from data sources that have low credibility (self-report) or are developed less systematically from sources that simply are not well understood. Estimates of the number of problematic drug users are most likely to have a significant role in policy making in the near future.

- 192 Safer, L. A., & Hardin, C. G. (1993). **Under Pressure Program: Using live theatre to investigate adolescents' attitudes and behavior related to drug and alcohol abuse education and prevention.** *Adolescence*, 28(109), 135-148.

The Under Pressure Program uses an innovative communication-centered approach designed to involve Chicago public junior and senior high school students in considering the problems and prevention of adolescent substance abuse. The centerpiece of the program is a 30-minute live musical play, *Captain Clean*, which incorporates extensive postperformance dialogue and role play to explore the pressures and feelings of adolescents regarding substance abuse. This blend of live entertainment and applied learning techniques enables adolescents to understand the pressures they face and teaches them to make responsible choices, in addition to serving as a vehicle for effective school and community substance abuse intervention. By going beyond the 60-second "just say no" television and radio campaigns, the Under Pressure Program addresses the underlying causes of adolescent substance abuse. Students are engaged in active participation rather than the traditional "teach and preach." The goals of the program

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are (1) to evaluate the effectiveness of live theatre in preventing and intervening in adolescent substance abuse, and (2) to examine the effectiveness of live theatre, via postperformance dialogue and role playing in soliciting feedback from adolescents as to their own feelings about substance abuse and using school counselors and other available resources, and to build upon their recommendations for improving substance abuse prevention and intervention programs. The program is targeted at predominantly minority, low-income students who have been identified as "high risk." The Under Pressure format consists of four integral parts: faculty/staff community in-service; theatrical performance (Captain Clean); postperformance dialogue and role play; and student, faculty, counselor, and community follow-up.

- 193 Sarason, I. G., Mankowski, E. S., Peterson Jr., A. V., & Dinh, K. T. (1992). **Adolescents reasons for smoking.** *Journal of School Health*, 62(5), 185-190.

As part of the Hutchinson Smoking Prevention Project, data was collected on reasons reported by adolescents for their smoking behavior. A total of 1,615 10th-grade students in 20 rural and suburban school districts in Washington state were asked why they currently smoke and why they first smoked. For beginning smoking, curiosity, social norms, and social pressure were the most frequently given reasons for smoking. For current smoking, pleasure and addiction were mentioned most often. A number of gender differences appeared for both beginning and current smoking. More females than males reported social norms and social pressure as reasons for beginning to smoke, whereas for currently smoking, pleasure was given as a reason more frequently by females than by males. When developing interventions, smoking prevention programs need to consider students' current and past smoking behavior, and the reasons they give for smoking.

- 194 Sarvela, P. D., & Ford, T. D. (1993). **An evaluation of a substance abuse education program for Mississippi Delta pregnant adolescents.** *Journal of School Health*, 63(3), 147-152.

A non-equivalent control group design was used to examine effectiveness of a self-administered drug and alcohol abuse/prenatal care health education program for pregnant teens ($N = 212$) in the Mississippi delta region of Southern Illinois. Experimental group posttest knowledge scores were significantly higher than control group scores; however, no significant differences occurred in attitudes between the two groups at posttest. Frequency of drug use decreased substantially for both experimental and control groups at posttest; however, significantly more experimental than controls indicated they reduced or quit using drugs. The experimental group had a significantly lower rate of diabetes, anemia, and sexually transmitted diseases, and possibly a lower rate of spontaneous abortion depending on the statistical test used. Data suggest prenatal care health education programs may be effective methods for increasing patient awareness about the dangers of drug and alcohol abuse and may have an effect on infant and maternal outcomes.

- 195 Schinke, S. P., Orlandi, M. A., & Cole, K. C. (1992). **Boys and Girls Clubs in public housing developments: Prevention services for youth at risk.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 118-128.

The impact of Boys & Girls Clubs recently installed in residential public housing developments is evaluated. Because most prevention interventions to date have been school-based, this study marks a development in prevention interventions for problem behavior among high-risk youth. The evaluation compared sites without Boys & Girls Clubs to sites with both previously and recently installed Boys & Girls Clubs. The results showed that public housing developments with Boys & Girls Clubs had less drug-related activity, measurably fewer damaged and unoccupied units, and increased parental involvement in youth activities.

- 196 Segal, B. (1992). **Ethnicity and drug-taking behavior.** *Drugs & Society*, 6, 269-312.

Alaskan students in grades 7-12 were surveyed to assess drug use prevalence among the ethnic groups represented: Alaskan Natives, American Indians (with tribal roots in the lower 48 states), Asian-Pacific Islanders, Blacks, Hispanics, Whites, and Others. The sample for analysis by ethnicity was 3,563 students, of whom 2,275 (64%) were White, 721 (20%) Alaska Natives, 175 (5%) Other, 129 (4%) Blacks, 113 (3%) Asian-Pacific, 77 (2%) Hispanics, and 73 (2%) American Indians (in the state's general population, about 14% are Alaska Natives, and

nonNatives make up the rest). It should be noted that the very small numbers of ethnic groups other than Native Alaskans and Whites render all results from those groups insignificant. Random stratified samples were taken from the larger urban school districts (Anchorage, Fairbanks, and Juneau), and in smaller school districts, all students were included in the sample. A self-administered questionnaire was used to obtain information about drug use. The overall pattern of prevalence of any use showed proportionally higher prevalence among Native Alaskans and Native Americans than among other groups: 74% of Alaska Natives and 73% of American Indians reported having at least tried at least one drug (other than alcohol or tobacco), as did 64% of Hispanics, 62% of Others, 57% of Whites, 51% of Asians, and 41% of Blacks. The differences between American Indians and Alaskan Natives, though not consistent, are in many cases sizable. For most substances, prevalence was notably higher among American Indians than among Native Alaskans, the exceptions being smokeless tobacco and marijuana. Indeed, the overall patterns of prevalence ranking for the sample of students in Alaska differs significantly from patterns found among students in the lower 48 states.

Students in the sample were asked whether they had used or tried any drug (excluding alcohol and tobacco in the previous year and the previous month. This information was analyzed by calculating what proportion of monthly users and yearly users belonged to each ethnic group. The pattern found was very close to that of representation in the total sample. Native Alaskans represented greater proportions of both monthly users and annual users than of the total sample. Others and Asian-Pacific Islanders had higher proportions of annual users than of the total sample; while American Indians had a greater proportion of past-month users than of the total sample. A sample of 943 children in grades 4 and 6 in the Anchorage School District were also surveyed to obtain information on early initiation. Since this was an urban sample, the ethnic breakdown was different, with larger proportions of Whites (68%) and other nonNatives (23% total), and a smaller proportion of Native Alaskans (9%). Twice as many Alaska Natives (13%) had tried marijuana as Whites (6.5%). Significant differences between Alaska Natives and Whites were also found for inhalants (23% vs. 12%, respectively), cigarettes (36% vs. 22%), and smokeless tobacco (27% vs. 10%). While only prevalence data was examined, some notable differences were found between Alaska Natives and Whites—Whites had higher prevalence on stimulants, cocaine, tranquilizers, hallucinogens, and heroin; and Alaska Natives were higher on marijuana, depressants, cigarettes, and smokeless tobacco. The prevalence rate of Native Alaskans for smokeless tobacco was particularly high, twice that of Whites. It was suggested that one reason for this difference might be the "chewing culture" of Alaska Natives.

- 197 Shamai, S., & Coombs, R. B. (1992). **The relative autonomy of schools and educational interventions for substance abuse prevention, sex education, and gender stereotyping.** *Adolescence*, 27(108), 757-770.

Three different types of intervention programs are reviewed: drug abuse prevention, sex education, and programs to change gender stereotypes, all of which were found to have limited effectiveness. Schools appear unable to change behaviors which are prevalent in a culture because they themselves are strongly influenced by that culture, and because adolescents are influenced by forces outside school. To be effective, such interventions would seem to require governmental agencies, community groups, and the media to work with the schools in order to influence the culture and thus produce behavioral changes in individuals. These observations suggest that the best way to introduce change via school programs is by coordinating them with parallel interventions provided by government agencies, community groups, and the media. This approach is most likely to influence the society at large and produce behavioral changes in individuals. Community-wide interventions of this sort have shown evidence of success.

- 198 Shannon, D. M., & James, F. R. (1992). **Academic intervention for at risk students with substance misusing backgrounds.** *Journal of Alcohol and Drug Education*, 38(1), 73-85.

This study examined the academic interventions provided for students considered at risk for academic failure. It also explored how the use of drugs and alcohol by at risk students increased their potential for school failure. A sample of 348 students identified as using drugs and alcohol was selected from a national data set of over 7,000 10th-grade students. A demographically comparable group of nonusers was also sampled. Both groups were predominantly White (79%), male (70%) and from rural schools (59%). This study revealed that substance-misusing students were placed at greater academic risk despite receiving more academic interventions. It is recommended that schools be more aware of outside factors that add to students' risk levels, such as drug and alcohol use by students, and be able to seek the appropriate services from outside agencies, thereby decreasing the degree to which students are at risk to fail in both school and life. Possible school intervention are discussed.

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- 199 Sharp, C. W., Beauvais, F., & Spence, R. (1993). *Inhalant abuse: A volatile research agenda. NIDA research monograph*. (DHHS Publication No. NIH 93-3480). Washington, DC: U.S. Government Printing Office.

Research related to inhalant abuse is discussed, including social and abuse patterns, clinical evaluation of psychological and physiological symptoms and disease states, treatment, pharmacology and toxicology, prevention, legal, and economic issues.

- 200 Shaw, S. (1992). **Group psychotherapy with adolescents**. In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 121-130). Gaithersburg, MD: Aspen Publishers.

The drug and alcohol use that is prevalent during adolescence is thought to be part of the "upset behavior" an element of the developmental conflict or identity crisis common to adolescence. This observed abuse often begins by age 12 and is so widespread that 95% of young people experiment with mood-altering drugs by the time they are seniors in high school. Group therapy is represented as addressing adolescents' struggle for individuation, as a facility for role transition, and as addressing the needs that frequently underlie substance abuse.

- 201 Shell, R. M., Groppenbacher, N., Roosa, M. W., & Gensheimer, L. K. (1992). **Interpreting children's reports of concern about parental drinking: indicators of risk status?** *American Journal of Community Psychology*, 20(4), 463-89.

Examined several self-report items traditionally used to identify children of alcoholics for their utility in identifying mental health risk status. The meaning of children's responses to these items was also examined. Collectively, these items reflected children's concern about their parents' drinking. Across multiple studies, children who reported concern about parental drinking reported higher levels of psychological and behavioral problems. This pattern existed whether or not children had a problem-drinking parent. Discriminant analyses with data from child and mother reports showed that children who reported concern were from homes with greater stress, lower income, and less supportive mother-child relationships.

- 202 Shifrin, F., & Solis, M. (1992). **Chemical dependency in gay and lesbian youth**. *Journal of Chemical Dependency Treatment*, 5(1), 67-76.

The subject of chemical dependency among lesbian and gay youth has been neglected by their families, the education and treatment systems, and adult lesbian and gay communities. The failure of education and treatment systems reflects the assumption that adolescents' lesbian or gay identity is a phase preceding a shift to "normal" heterosexual object choice, or that it is a pathological or maladaptive pattern. Studies revealing the high incidence of substance use and abuse in lesbian and gay adults have also indicated that substance use problems often begin in adolescence. Alcohol and other drug use is multifunctional for lesbian and gay youth, medicating anxiety, depression, and the pain of hiding and denying lesbian or gay identity, and of ridicule and rejection from peers and family. Drug use is also an integral part of the street prostitution which enables many homeless adolescents to survive. It seems a reasonable expectation that anything which can avert the internalization of homophobia will decrease risk for substance abuse. Prevention requires fostering a positive environment for lesbian and gay youth with positive role models, validation of lesbian and gay affective relationships, and assistance and support in accepting their sexual orientation. In specific institutions, this may involve placement of posters and literature in public areas, guidance offices, and school libraries; including accurate, fact-based discussion of lesbian and gay relationships and communities, and of sexual identity in academic coursework.

- 203 Sigelman, C., Didjurgis, T., Marshall, B., Vargas, F., & Stewart, A. (1992). **Views of problem drinking among Native American, Hispanic, and Anglo children**. *Child Psychiatry and Human Development*, 22(4), 265-276.

Sixth-grade students were presented with a description of drinking behavior, and their opinions about the described drinking behavior were assessed. The study involved students from three schools in the area of Tucson, Arizona: (a) a school located on the Tohon O'odham (Papago) reservation, which serves mainly low income Native American children (2 Hispanics, 19 Native Americans); (b) a Catholic school which takes students from a range of ethnic and

socio-economic backgrounds (10 Anglos, 11 Hispanics); and (c) a middle-class public school which serves mostly Anglos (20 Anglos, 5 Hispanics, 2 Native Americans). The students listened to a recording of a male adult describing a male high school student called "Dan Roberts." The description was designed to convey an image of an average adolescent who fit the profile of a typical teenage problem drinker. "Dan" tried beer at 11, drank often by 13, and at 15, his age as described, was getting drunk two or three times per week, at weekend parties and on weeknights with friends, on beer or sometimes whiskey. Some nights he has fun, other times he needs help getting home, and he passed out at two parties in the last couple weeks. The tape said that some mornings after drinking he has trouble getting up and "is grouchy." Students were interviewed to gather their opinions of "Dan" and what the interviewers described as his "drinking problem." Interviewers assessed "perceived seriousness," theories of the cause of the drinking problem, responsibility for the problem, appropriate treatment, support for treatment, affect toward "Dan," and unconventional values.

The three groups: Native Americans, Hispanics, and Anglos were more alike than different in perceptions of "Dan." Where differences were found, usually Anglos differed significantly from Native Americans, and Hispanics scored in between, differing significantly from neither. Anglo children rated "Dan's problem" as more severe than both the Hispanics and the Native American, differing significantly only from the Native Americans. Native Americans more often endorsed the disease theory of alcohol abuse than the other groups, but again the only significant difference was between the Anglos and the Native Americans. The only other highly significant difference was for unconventional values, which the Native Americans endorsed most often, Hispanics less, and Anglos least. Again, the difference was significant only between the Native Americans and the Anglos. When values were controlled, ethnic differences became nonsignificant. It is suggested that further research explore the connection between unconventional values and ethnicity. Given the high prevalence of alcohol abuse on the reservations, reservation-dwelling Native Americans may see alcohol abuse as more conventional than do Anglos. It would be useful to try a similar study permitting comparison of perceptions of diverse cases of drinking behavior, rather than one description of an Anglo. Native American, Hispanic, and Anglo sixth graders reacting to an example of teenage problem drinking expressed similar beliefs and attitudes in many respects. However, Native American children viewed the problem as less serious, more often subscribed to a disease theory of alcoholism, attributed less causal responsibility to the individual, and adopted a less aggressive approach toward treatment than did Hispanic, and especially Anglo, children. Their less conventional value orientations accounted for all these differences except their stronger endorsement of a disease theory of problem drinking.

- 204 Skager, R., & Austin, G. (1993). *Fourth Biennial Statewide Survey of Drug and Alcohol Use Among California Students in Grades 7, 9, and 11; Winter 1991-92: Report to the Attorney-General*. Sacramento, CA: Office of the Attorney-General, California Department of Justice.

The fourth biennial Attorney General's California Student Substance Use Survey (CSS) was conducted in November-December 1991 among representative samples of 8,084 students in grades 7, 9, and 11 enrolled in 47 public high schools and 44 "feeder" public junior high or middle schools selected according to a stratified random sampling plan. The grade-level samples were roughly the same size and the percentages of male and female respondents were close to evenly divided at each grade level, and reasonably similar across the four surveys. Overall, across grades, the sample was about 11% Asian, 9% Black, 30% Hispanic, 1% Native American, 45% White, and 10% Mixed.

Prevalence rates for use in the past six months (any use and weekly rates) were compared for the most common substances among five major ethnic groups (Asian, Black, Hispanic, Native American, and White), and the categories Mixed and Other. Because past California Student Surveys have not revealed many significant ethnic differences across grade levels, analyses were limited to a combined sample of 9th- and 11th-graders. This was done to simplify the presentation of the data and provide a larger sample size for the smaller groups, such as Native Americans. Because there were still relatively small numbers in the sample of subgroups within the Asian and Hispanic categories, subgroup analyses were not performed.

There were several consistent group differences in use rates across drug categories. The Mixed category tended to be among the groups reporting relatively high prevalence rates. Native Americans were significantly higher above other groups in virtually all use categories. However, given the small numbers of Native Americans in the sample at each grade level, the prevalence rates in regard to little-used drugs, such as LSD, cannot be considered reliable. Whites generally had the next highest rates of use, followed closely by Hispanics. The major exceptions were higher use of cocaine among Hispanics, and of marijuana among Blacks. At the other end of the spectrum, Asian students reported considerably lower use for most drugs than other groups. This was especially true of alcohol. Use of cocaine, amphetamines, and LSD, although still relatively low, were higher among Asians than among Blacks and closer to the levels reported by Hispanics. Black students also tended to have prevalence rates at the low end of the scale, the lowest for cocaine and tobacco. Marijuana use was the notable exception, with Blacks reporting higher

rates than Whites and Hispanics. Patterns of weekly use across ethnic groups were roughly consistent with those for any use in the past six months.

In the total sample, and for each ethnic group, prevalence rates tended to be higher among males, especially for beer. The major exceptions were higher rates of wine-drinking among females (especially for Blacks) and similar rates for tobacco (especially for Native Americans). The major exception to the higher rates for males occurred in higher use of total alcohol, spirits, tobacco, and marijuana among Native American females. They reported higher rates of alcoholism than males of any other ethnic group. For tobacco, gender differences within groups were slight, except for higher smoking rates among Native American females.

The relatively low rates of use found among minority students, especially Blacks, is inconsistent with many of the assumptions that appear to be made about adolescent AOD use. Yet such lower rates are consistently found in other student surveys. The basis for these ethnic differences is complex and warrants further exploration.

- 205 Snow, D. L., Tebes, J. K., & Arthur, M. W. (1992). **Panel attrition and external validity in adolescent substance use research.** *Journal of Consulting and Clinical Psychology, 60*(5), 804-807.

Panel attrition threatens external validity in adolescent substance use research. A 7-year adolescent panel was examined to determine whether attrition effects varied by (a) type of substance assessed and (b) method of measurement and type of statistical analysis. Chi-squares and multivariate analyses of variance revealed that study dropouts were more likely to use substances and reported higher mean use of substances at baseline than stayers; attrition effects varied by substance; and mean use comparisons were more likely to detect attrition effects than use-nonuse comparisons.

- 206 Snow, D. L., Tebes, J. K., Arthur, M. W., & Tapasak, R. C. (1992). **Two-year follow-up of a social-cognitive intervention to prevent substance use.** *Journal of Drug Education, 22*(2), 101-114.

This study presents two-year follow-up results of the Adolescent Decision-Making Program initially implemented when students were in the 6th grade. The intervention was found to maintain a positive effect on mean tobacco use, but no differences were observed for mean alcohol, marijuana, or hard drug use. In a test of the differential effectiveness of the intervention, program students living with married parents reported lower mean tobacco use than control students living with married parents and program and control students living with single parents. Logistic regression analyses examining the proportion of users at follow-up revealed a negative program effect for alcohol and no differences for the other substances. Subsequent attrition analyses strongly suggested that the positive effect for tobacco use at follow-up was most likely even stronger, and that the negative effect for alcohol was spurious. The importance of examining both program and attrition effects emphasized, and the need to consider alternative models to guide the conceptualization and evaluation of adolescent substance use prevention programs was discussed.

- 207 Sobocinski, M. R. (1993). **Adolescent substance use: The role of self-esteem, parental and peer support, coping skills, and patterns of social interaction.** Ph.D. dissertation. University of Denver, Denver, CO). *Dissertation Abstracts International, 53*(8):4386B, 1993.

Profiles of adolescent Non-Users, Occasional Users, and Regular Users of alcohol and/or marijuana, were developed on the basis of select psychosocial variables. The study population consisted of school students from grades 7-12 at 16 schools in two large metropolitan school districts. The total sample size was approximately 1,460 students, ranging from 12-18 years. Significant between-group differences were found on many of the variables that were examined. Overall, the Non-Users in the sample demonstrated more supportive and accepting parent and peer relationships, came from families with greater levels of mutual involvement between parent and child, utilized more active coping behaviors, had higher levels of self-esteem, and associated with peers who had a similar level of substance involvement. Regular Users were more alienated from adult sources of support, came from disengaged families characterized by laissez-faire parenting, and used more avoidant coping skills. The Occasional Users was the most heterogeneous group, and in many respects more closely resembled the Regular Users than the Non-Users, although they experienced fewer negative consequences resulting from their substance use. This group also demonstrated the lowest levels of global self-esteem, as well as the lowest levels on several self-concept domains. The results were viewed as underscoring the important role played by non-conditional sources of parental support

within a family environment characterized by low levels of conflict, and regular, nonintrusive parental involvement in the development of resiliency in youth.

- 208 Sokol-Katz, J. S., & Ulbrich, P. M. (1992). **Family structure and adolescent risk-taking behavior: A comparison of Mexican, Cuban, and Puerto Rican Americans.** *International Journal of the Addictions*, 27(10), 1197-1209.

The Hispanic Health and Nutrition Examination Survey (HANES) was used to examine whether family structure is related to alcohol and drug use among Mexican, Puerto Rican, and Cuban American adolescents. The sample included 144 Cuban, 794 Mexican American, and 299 Puerto Rican adolescents (ages 12-18). Subjects completed both an interview and an examination by a physician, and subjects' mothers also received an examination by a physician. Subjects whose mothers were married and cohabited with their spouses were categorized as living in two-parent families, and those whose mothers were not married, and who had no other adults in the household were categorized as living in one-parent families. Subjects with other family structures were excluded from the study sample. The sample gender balance was approximately equal, and average age was 15. The interviews were given in both English and Spanish. Alcohol use was measured by both any use and average consumption. Other drug use was measured with an additive scale, with one point being added for any use of each of the following: marijuana, barbiturates, inhalants, and cocaine. Risk-taking behavior was measured with an additive index of any alcohol use and the other drug use index.

Over 25% of Mexican and Puerto Rican adolescents reported some drug use, twice as large a proportion as reported alcohol use, but the proportions of Cubans reporting alcohol use and other drug use were similar (16.1% and 15.0%, respectively). In all groups, males reported significantly more alcohol consumption than did females. More Cuban adolescents who took the interview in English reported alcohol use than did those who took the interview in Spanish. Urban Puerto Ricans reported more alcohol use than the suburban Puerto Ricans. Mexican adolescents reporting higher household income were more likely to report alcohol use than those reporting lower income. Older adolescents were more likely to report alcohol and other drug use. Neither income nor urban/suburban/rural living correlated with drug use. No significant interaction effect was found for sex and family structure with alcohol use, drug use, or risk-taking index, thus there was no evidence that gender modified the effect of family structure for adolescent risk-taking behaviors. Most of the Puerto Ricans (73.2%) reported living in single female parent households, compared to less than half the Mexican and Cuban adolescents (49.3% and 42.6%, respectively). More Mexican adolescents who lived in single-parent households reported alcohol use than those who lived in two-parent households. The same was true for drug use. Family structure was related to the risk-taking index (measuring any use of alcohol and other drugs) for Puerto Ricans and for Mexicans. It is most important to note that results were not consistent for the three Hispanic groups studied. These findings substantiate the view that patterns of use and correlates of use vary across Hispanic groups. And while there were marked gender differences for alcohol and other drug use, gender does not seem to have affected the relationship between use and family structure. Three issues are suggested for further research: (a) the relationship of gender and risk-taking; (b) the relationship of acculturation and family structure with substance use; and (c) cultural patterns of family structure, taking into account broader kinship ties and networks in addition to the single-mother/two-parent dichotomy.

- 209 Southwick, W., & Zahorodnyj, S. (1992). **Lakeview Comprehensive Youth Services Project: Characteristics of youth in high-risk environments.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 43-49). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

A network of service agencies for adolescents on the streets of Chicago's north side is described. Adolescents living at home were compared with others who were homeless or had some temporary shelter, on both measures of substance use and on listed risk factors. The not-at-home youth had higher measures of both substance use and risk factors. It is concluded that the program is reaching the students at highest risk.

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- 210 Springer, J. F., Phillips, J. L., Phillips, L., Cannady, L. P., & Kerst-Harris, E. (1992). **CODA: A creative therapy program for children in families affected by abuse of alcohol or other drugs.** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 55-74.

Children of alcoholics and drug users are at high risk for future alcohol or other drug problems, as well as for their negative effects. This study describes and evaluates CODA, an art therapy program for children and parents in families suffering from chemical dependency. Art and play therapy are evident in many school-based prevention activities and have established appeal as an approach to interventions with children. However, there is little empirical literature on prevention programs using art and play therapy. Evaluation findings for the CODA program indicate success in recruiting and maintaining participation by youth and parents in chemically dependent families. Pre-post comparison of Aschenbach CBCL/4-16 scores demonstrated highly significant gains in competencies and reductions in identified behavior problems over a 12-week program period. Though interpretation must be made with caution, the use of art and play therapy in combined child and parent groups deserves further research as an intervention for children in chemically dependent families.

- 211 St. Pierre, T. L., Kaltreider, D. L., & Johnson, M. P. (1992). **The Smart Leaders Booster Program: A Pennsylvania State University and Boys Clubs prevention project.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 186-198). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

Smart Leader training was offered to members of Boys Clubs. The training, offered as booster sessions, helped to develop additional programming for younger members in the clubs. It is concluded that the program delayed additional AOD use somewhat at an age at which dramatic increases are usually seen.

- 212 Stacy, A. W., Newcomb, M. D., & Bentler, P. M. (1992). **Interactive and higher-order effects of social influences on drug use.** *Journal of Health and Social Behavior*, 33, 226-241.

The study of moderators and higher-order effects of social influences on drug use has many implications for theories of health behavior. In the present study, we investigated the longitudinal predictive effects of some of the prominent moderator variables that represent forms of susceptibility toward social influence in teenage drug use. The possibility that social influence may predict drug use in nonlinear (quadratic) forms, which is consistent with theories proposing that threshold or decelerating effects may occur in social influences on normatively sanctioned behaviors, was also considered. Results showed that several of the interactive and quadratic predictive effects were significant. The findings supported the views that certain moderator variables act as buffers, which either protect the individual from social pressures to use drugs, or make the individual more susceptible to such pressures. In addition, two of the obtained quadratic effects of social influence lent support to the application of social impact theory to drug use. Overall, our findings suggest that interactive and nonlinear approaches to social influences on drug use provide a unique and viable theoretical perspective from which to construe this problem health behavior.

- 213 Stauffer, P. (1993). **Prevention resource guide: Youth in low income urban environments.** (DHHS Publication No. ADM 92-1902). Washington, DC: U.S. Government Printing Office.

Youth in low-income environments face tremendous economic, social, environmental, and familial complications that put them at high risk for developing alcohol, tobacco, and other drug problems. This resource guide describes articles and reports from peer-reviewed journals and books, and attractive prevention materials such as posters, videos stickers, and comic books.

- 214 Stein, S. L., Garcia, F., Marler, B., Embree-Bever, J., Unrein, D., Burdick, M. A., Fishburn, S. Y., & Garrett, C. J. (1992). **A study of multi-agency collaborative strategies: Did juvenile delinquents change?** *Journal of Community Psychology* (OSAP special issue : Programs for change: Office for Substance Abuse Prevention demonstration models), 88-105.

Some of the 51 Colorado juvenile delinquents committed to the Department of Institutions who participated in the Colorado OSAP Project demonstrated remarkable positive changes, including not recidivating in the one-year follow-up period. Report is given of the one-year evaluation of this trial project. The services provided focused on affective education, drug-free alternatives, prosocial bonding, self-competency development, and transition skills. An emphasis was placed on multiagency collaboration. The project began as a collaboration between agencies in juvenile justice and substance abuse. The Colorado OSAP Management Team was expanded to include the evaluation and direct service agencies. The team managed the project through exchanging information, solving problems, and documenting the results. Not all participants demonstrated these positive changes: some ran away from the community-based, unsecured residential project; and others were terminated for substance use or other criminal behaviors; yet many did change. The evaluation of the Colorado OSAP Project documented the implementation and effectiveness of the intervention strategies.

- 215 Steinberg, L., Fegley, S., & Dornbusch, S. M. (1993). **Negative impact of part-time work on adolescent adjustment: Evidence from a longitudinal study.** *Developmental Psychology*, 29(2), 171-180.

Researchers disagree over whether negative correlates of extensive part-time employment during adolescence are consequences of working or are due to differential selection into the labor force. This study examines the over-time relation between school-year employment and adjustment in a heterogeneous sample of approximately 1,800 high school sophomores and juniors. Analyses indicate both significant selection effects and negative consequences of employment. Before working, adolescents who later work more than 20 hours per week are less engaged in school and are granted more autonomy by their parents. However, taking on a job for more than 20 hours per week further disengages youngsters from school, increases delinquency and drug use, furthers autonomy from parents, and diminishes self-reliance. Leaving the labor force after working long hours leads to improved school performance but does not reverse the other negative effects.

- 216 Stiffman, A. R., Dore, P., Earls, F., & Cunningham, R. (1992). **The influence of mental health problems on AIDS-related risk behaviors in young adults.** *Journal of Nervous & Mental Disease*, 180(5), 314-320.

The influence was examined of symptoms of mental health problems on acquired immunodeficiency syndrome-(AIDS) related risk behaviors, and how changes in those symptoms relate to risk behaviors engaged in by young adults. Repeated interviews with 602 youths since 1984 provided a history of change in behaviors. Mental health symptoms during adolescence (alcohol/drug, conduct disorder, depression, suicide, anxiety, and posttraumatic stress) are associated with higher numbers of risk behaviors (specifically, prostitution, use of intravenous drugs, and choice of a high-risk sex partner) during young adulthood. Changes in mental health symptoms between adolescence and young adulthood are related to the number of risk behaviors engaged in by young adulthood (total number of symptoms, alcohol/drug abuse or dependence, depression, suicidality, anxiety, and posttraumatic stress). Changes in symptoms of mental health problems are associated specifically with those risk behaviors that are initiated primarily in young adulthood: intravenous drug use, prostitution, and choice of risky partners. The findings show that prevention and treatment of mental health problems are important components of preventive interventions for human immunodeficiency virus infection in high-risk teens and young adults.

- 217 Stone, S. L., & Kristeller, J. L. (1992). **Attitudes of adolescents toward smoking cessation.** *American Journal of Preventive Medicine*, 8(4), 221-5.

A study surveyed 375 10th-grade students on present behaviors regarding cigarette use and on attitudes concerning smoking cessation. Fourteen percent of respondents were daily smokers and 7% were occasional smokers. Of the daily smokers, 28% said their most important reason for continued smoking was because they were addicted, and 52% reported two or more prior cessation attempts. When asked the most important reasons for wanting to quit,

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70% of occasional smokers and 43% of daily smokers ranked health as the most important concern. Only daily smokers (22%) said they wanted to quit because they thought they were addicted. It was concluded that daily smokers among adolescents have many characteristics of adult smokers and that intervention efforts among adolescent smokers may need to be tailored differently for such "adult pattern" smokers as compared to occasional smokers, particularly in regard to addressing the question of smoking as an addictive behavior.

- 218 Stowell, R. J. A., & Estroff, T. W. (1992). **Psychiatric disorders in substance-abusing adolescent inpatients: A pilot study.** *Journal of the American Academy of Child and Adolescent Psychiatry*, 31(6), 1036-40.

In a pilot study of 226 adolescents entering inpatient treatment because of a primary substance use disorder, 82% met DSM-III-R criteria for an Axis I psychiatric disorder. Of this population, 74% had two or more psychiatric disorders. Mood disorders were found in 61%, conduct disorders in 54%, and anxiety disorders in 43%. Substance-induced organic mental disorders were found in 16%. The data argued strongly for the simultaneous evaluation of both substance use and psychiatric disorders in this type of adolescent population. The pilot study also demonstrates the relative frequency of dually-diagnosed subgroups. The authors propose that the dual diagnosis subgrouping may have specific treatment implications involving a combined psychiatric and substance abuse treatment approach.

- 219 Sussman, S., Brannon, B. R., Dent, C. W., Hansen, W. B., Johnson, C. A., & Flay, B. R. (1993). **Relations of coping effort, coping strategies, perceived stress, and cigarette smoking among adolescents.** *International Journal of the Addictions*, 28(7), 599-612.

Coping strategies may influence adolescent smoking behavior because they provide alternative behavioral and cognitive outlets which facilitate or inhibit smoking, or because they are expressions of general coping effort to smoke or not smoke. The present investigation examined three possibilities regarding how coping strategies versus coping effort compare as predictors of adolescent smoking: (a) general coping effort to not smoke may be a better predictor of adolescent smoking behaviors than are specific coping strategies; (b) coping strategies may be relatively better predictors of smoking behaviors; or (c) these two constructs may be relatively better predictors of different parameters of smoking behaviors. Analytic strategies included calculation of a series of multiple regression models, involving (a) 11 coping strategies previously studied in adolescent smoking research; (b) a new simple measure of coping effort to not smoke; and (c) perceived stress, as concurrent predictors of four smoking-related items. Of the 11 coping strategies, partying, relaxation, seeking spiritual guidance, and getting revenge were related to at least one of the four cigarette smoking behaviors, whereas only the coping strategies were related to cumulative smoking. Both types of items predicted refusal self-efficacy and intention to smoke in the future. Apparently, these two types of items show unique as well as common predictive variance. These results suggest that coping strategies are related to cumulative smoking for reasons other than motivation to not smoke.

- 220 Swaim, R. C., Oetting, E. R., Thurman, P. J., Beauvais, F., & Edwards, R. W. (1993). **American Indian adolescent drug use and socialization characteristics: A cross-cultural comparison.** *Journal of Cross-Cultural Psychology*, 24(1), 53-70.

A cross-cultural study of American Indian adolescent drug use and socialization characteristics is described. The research sample included 477 northern Plains and southwest American Indian 11th- and 12th-grade students from two reservations who responded to an anonymous substance use survey during regular school classes. Socialization variables included family strength, religious identification, school adjustment, family sanctions against drug use, and peer associations. The following results of the study were seen: (a) peer drug associations are likely to be the dominating force in youth drug abuse for Anglo adolescents; (b) although similar relationships were seen for Indian adolescents, peer drug associations were not as highly correlated with drug use; and (c) for Indian adolescents, family sanctions against drugs had both direct and indirect influences on drug use. It is suggested that differences in family dynamics, including the presence of other relatives in an extended family situation, may play a role in the effects of family sanctions against drug use.

- 221 Swan, A. M. (1992, September). **Children's Literature and Alcohol: Being Aware.** *Childhood Education*, 69(1), 10-14.

Incidental references to alcohol and drinking in selected children's books are described and the appropriateness of these references is considered. Books that afford a comprehensive view of alcohol and its effects are reviewed, and suggestions for teachers concerning the use of such books are offered. Two book lists are provided.

- 222 Swanson, J. W., Linskey, A. O., Quintero-Salinas, R., Pumariega, A. J., & Holzer III, C. E. (1992). **A binational school survey of depressive symptoms, drug use, and suicidal ideation.** *Journal of the American Academy of Child and Adolescent Psychiatry*, 31(4), 669-78.

New findings are presented from a survey of depressive symptoms, illicit drug use, and suicidality among 4,157 adolescents ages 11-19 attending school in six border cities in Texas and neighboring Tamaulipas, Mexico. Among the Texas youth, 48% scored above 16 on the Center for Epidemiologic Studies' Depression Scale (CES-D); 21% reported some illicit drug use in the past month; and 23% said they had thought about killing themselves during the past week. Rates were lower among the Mexican youth: 39% had high CES-D scores; 5% reported drug use and 12% reported current suicidal ideation. Multivariate models are presented to show the linkage between psychological distress, drug use, and suicidality in this sample of border youth.

- 223 Szalay, L. B., Canino, G., & Vilov, S. K. (1993). **Vulnerabilities and cultural change: Drug use among Puerto Rican adolescents in the United States.** *International Journal of the Addictions*, 28(4), 327-354.

The investigations examined drug usage-based and culture-based differences in young Puerto Ricans living in New York (100 nonusers and 93 drug users), Americans living in New York (100 nonusers and 99 drug users), and Puerto Ricans living in Puerto Rico (100 nonusers and 98 drug users). Drug users samples were drawn from drug treatment and rehabilitation centers, and while efforts were made to draw nonuser samples comparable on sociodemographic factors, the samples were not drawn at random, and were not intended to be representative. The Associative Group Analysis method was used to measure cultural change in three dimensions: dominant perception, priorities, and evaluations. The results showed that the Puerto Ricans in New York had perceptions of drugs and alcohol more similar to those of Americans than to those of Puerto Ricans in Puerto Rico: their attitudes were less negative, seeing more positive aspects, such as the euphoric effects. In New York there seemed to have been an erosion of the barriers which protected Puerto Ricans in Puerto Rico. The findings show that the Puerto Rican drug user and nonuser groups in New York differed significantly in their paths of acculturation. The nonusers were shown to progress unsuccessfully in learning American meanings and adopting American perspectives and cultural norms. The drug users were attracted to dominant American priorities (e.g., wealth and freedom) but showed little progress in adopting deeper American cultural meanings necessary for effective coping. It is suggested that delayed acculturation results in vulnerability to alcohol and drug problems.

- 224 Tarter, R. E., Laird, S. B., Bukstein, O. G., & Kaminer, Y. (1992). **Validation of the Adolescent Drug Use Screening Inventory: Preliminary findings.** *Psychology of Addictive Behaviors*, 6(4), 233-236.

The validity of the Substance Use and Psychiatric Disorder scales of the newly developed Drug Use Screening Inventory (DUSI) was documented among 25 adolescents. The results were correlated with the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS) and DSM-III-R substance abuse symptoms. Significant positive correlations were observed between number of symptoms on the DSM-III-R checklist and severity scores on the Substance Use, Health Status, Psychiatric Disorder, Social Skills, Family System, School, Work, and Peer Relations scales of the DUSI. Number of psychiatric symptoms reported on the K-SADS correlated with severity scores on the Substance Use, Behavior Problems, Health Status, and Psychiatric Disorder scales of the DUSI. The results also indicated that drug use, more than psychiatric disorder, was related to psychosocial disturbances in this sample of adolescents.

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- 225 Thomas, B. S. (1992). **Patterns of alcohol and other drug use in an Iowa community.** *Journal of School Health, 62*(10), 454-458.

From a baseline survey of high school students in two Iowa school systems, information was obtained to describe patterns of alcohol and other drug (AOD) use and adverse consequences of use, compare indices of AOD use and consequences for grade level and gender differences, and examine relationships of indices to selected individual, family-related, and social competence/adjustment-related risk factors. Though use of illicit drugs was reported at low levels, prevalence of drinking and incidence of binge drinking were relatively high. Increases in AOD use and adverse consequences with age and grade level were found, but gender differences were not found. Relationships of AOD use and adverse consequences to selected individual, family, and social risk factors were consistent with a substantial body of prior research, although exceptions were found. The strongest correlations to both indices were found for risk-taking, sense of mastery, family management and cohesion, peer pressure, and social and school adjustment.

- 226 Thomas, C. F. (1992). **Drug-free school zones: Taking charge.** Portland, OR: Western Regional Center for Drug-free Schools and Communities.

This guidebook was developed to assist schools and communities plan and implement drug-free school zones within a broader school/community prevention and intervention program. This guide deals with the drug-free school zone. The guide provides information to local school districts and communities to help in planning drug-free zones in general. However, it also suggests strategies they can use in implementing drug-free school zones within a broader school/community prevention and intervention program.

- 227 Tobler, N. S. (1992). **Drug prevention programs can work: Research findings.** *Journal of Addictive Diseases, 11*(3), 1-28.

Findings are reported from 91 programs which included drug use measures, from the database previously reported in the author's meta-analysis of 143 adolescent drug prevention programs. Treatment components of strategies successful in decreasing drug use by adolescents are discussed with regard to both the developmental stages of adolescents and the current etiology of drug abuse. Questions for future programming address theoretical assumptions and practical issues. Is attitude change a prerequisite for decreased drug use? The meta-analysis findings questioned the validity of using knowledge and attitude measures as the only outcome measures. Successful program strategies require innovative planning and close attention to implementation factors. Answers to implementation questions require continued quality research. Implications for future planning may lie in the public policy arena.

- 228 Towberman, D. B., & McDonald, R. M. (1993). **Dimensions of adolescent drug-avoidant attitude.** *Journal of Substance Abuse Treatment, 10*, 45-52.

The underlying dimensions of drug use attitudes that relate to substance use by adolescents were examined using cross-sectional data from a longitudinal study of adolescent drug use patterns. The subjects were a random sample of 1,050 Virginia grade 7 and 8 public school students (62% White and 36% Black). Data were collected with the Youth Life-Styles Inventory. Six constitutive dimensions of drug use attitude were identified through factor analysis: perceived peer attitude, alcohol-avoidant attitude, drug-avoidant attitude, performance attitude, image enhancement attitude, and perceived parental attitude. All six factors were found to correlate significantly with both drug experimentation and frequency of drug use. Two internally-referenced factors (drug-and alcohol-avoidant attitudes) are discussed as outcomes of the attitude-formation process. The four externally-referenced attitude components (peer, parental, image enhancement, and performance attitudes) may have influenced the formation of internalized attitudes and suggested the need for interventions targeting peer and parental relations and youth's understanding and perception of how drug use impacts personal appearance and performance.

- 229 Ungerleider, S., & Caudill, B. D. (1992). **Impact: An early intervention demonstration project.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 199-210). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

The impact of alcohol and other drug use (AOD) awareness training on school teams was evaluated. The training, focusing on awareness, identification, and intervention with youth in high-risk environments, seemed to increase teacher confidence in recognizing problems and taking constructive action. After training, teachers expressed the need to revise existing school policies and increased the number of AOD awareness lessons in their classrooms.

- 230 Utada, A. (1992). **An early intervention study of delinquent adolescents using alcohol and other drugs.** In C. E. Marcus, & J. D. Swisher (Eds.), *Working with youth in high-risk environments: Experiences in prevention* (pp. 50-54). (OSAP Prevention Monograph 12). (DHHS Publication No. ADM 92-1815). Washington, DC: U.S. Government Printing Office.

A study targeted a sample of male adolescent offenders, two-thirds Black, and one-third White, most of whom came from disrupted families, and many of whom lived with single female parents. In general, they described their friends as alcohol and other drug users.

- 231 Van Hasselt, V. B., Hersen, M., Null, J. A., Ammerman, R. T., Bukstein, O. G., McGillivray, J., & Hunter, A. (1993). **Drug abuse prevention for high-risk African American children and their families: A review and model program.** *Addictive Behaviors*, 18, 213-234.

A literature review examines the familial and socioeconomic factors that contribute to the exceedingly high prevalence rates of drug abuse in African-American children. In addition to detailing the impact of drug abuse in African-American children and their families, possibilities for prevention using existing knowledge and strategies known to mental health professionals are reviewed. It is argued that only a community-based program that specifically and comprehensively deals with the challenges and difficulties of these individuals will have a chance of success. A model program entitled Project for a Substance Abuse-Free Environment (SAFE) is outlined. Its objectives are to implement: (a) a broad-spectrum family intervention to empower disadvantaged and high-risk families in their communities; (b) a competency-based skills intervention to increase resilience and decrease drug use and other maladaptive behaviors in at-risk children; (c) alternative activities that will promote self-efficacy, achievement, and self-esteem; (d) a culturally-relevant evaluation plan that includes both formative (process) and summative (outcome) evaluation; (e) systematic procedures for enhancing the maintenance and generalization of gains in participating children and families.

SAFE actually consisted of three programs: (a) Parent and Child Training (PACT); (b) Peers as Leaders (PALS); and (c) Communities Activity Program (CAP). Parent and Child Training (PACT) was a home-based intervention for disadvantaged and at-risk African American families, with nine separate components addressing different areas of possible need. The intervention was designed to be individually tailored to each family. The components included: parenting skills training, impulse control training, child management skills training, and household organization and safety training, stress reduction training, problem-solving skills training, social skills and assertion training, leisure and play skills training, and psychosocial education. Peers as Leaders (PALS) aimed to provide stress-protective skills that have been suggested to be vital to resilience and invulnerability to stressful life events and circumstances in high-risk youth. This program included substance use information, social skills training, problem-solving skills training, self-control training, and academic tutoring and homework monitoring. The training was carried out by high school students from the targeted child's community, who had been recruited as Peer Leaders on the basis of high academic achievement and social status in their own schools. Communities Activity Program (CAP) included music and athletic programs.

While Project SAFE was in effect, 4th-grade students and their families were identified from elementary schools in the Pittsburgh Public School District, using school district records to look for specific risk factors: economic disadvantage, mental health or behavior problems, chronic school failure, physical, sexual, or psychological abuse, and parental substance abuse. Students with three or more of these risk factors were identified as high risk, and they and their families were approached for participation in the project. Project SAFE expanded upon most existing

prevention programs with its emphasis on older peer involvement, concurrent intervention with family, and simultaneous participation in cultural and athletic activities in their communities. This project is culturally sensitive, provides alternative activities, and incorporates ongoing evaluation of program impact. Early anecdotal evidence from students' caregivers, teachers, and Project SAFE staff, suggests some decrease in behavior problems. Most notable for participating families has been a reduction of stress in the home.

- 232 Van Hasselt, V. B., Null, J. A., Kempton, T., & Bukstein, O. G. (1993). **Social skills and depression in adolescent substance abusers.** *Addictive Behaviors, 18*, 9-18.

Social skills and depression were assessed among adolescent substance abusers hospitalized in an inpatient psychiatric setting. Level of social skill was evaluated using the Adolescent Assertion Expression Scale and the Loneliness Scale. Depression and related problems were examined through administration of the Beck Depression Inventory, Beck Hopelessness Scale, and the Rosenberg Self-Esteem Scale. Comparisons with normative values and clinical cut-offs (by gender) indicated that female adolescent substance abusers were less submissive and more aggressive than normative counterparts; male substance abusers exhibited less assertiveness. In addition, mild to moderate levels of depression were evident in both female and male substance abusers. Further, results of correlational analyses revealed several significant relationships between measures of social skills and depression. Results are discussed in terms of: (a) the need for finer-grained analysis of social functioning in adolescent substance abusers; (b) the potential value of skills intervention for a subgroup of these individuals; and (c) the need for longitudinal data to more clearly explicate patterns and sequencing of social (mal)adjustment, affective disorder, and onset of substance abuse in this population.

- 233 Vega, W. A., Zimmerman, R. S., Warheit, G. J., Apospori, E., & Gil, A. G. (1993). **Risk factors for early adolescent drug use in four ethnic and racial groups.** *American Journal of Public Health, 83*(2), 185-189.

It is widely believed that risk factors identified in previous epidemiologic studies accurately predict adolescent drug use. Comparative studies are needed to determine how risk factors vary in prevalence, distribution, sensitivity, and pattern across the major US ethnic/racial groups. Baseline questionnaire data from a 3-year epidemiologic study of early adolescent development and drug use were used to conduct bivariate and multivariate risk factor analyses. Respondents ($N = 6,760$) were 6th- and 7th-grade Cuban (26%), other Hispanic (38%), Black (20%), and White non-Hispanic (13%) boys in the 48 middle schools of the greater Miami (Dade County) area.

Lifetime use of alcohol was measured at 37% in the total sample, with nonHispanic Whites showing the highest prevalence at 48%, followed by Cubans 41%, other Hispanics 32%, and Blacks 25%. Any cigarette smoking was less prevalent: 21% of the total sample, 27% of White nonHispanics, 21% of Cubans, 20% of other Hispanics, and 12% of Blacks. Inhalant use was low: 4% of the total sample, ranging from 5% for White nonHispanics and Cubans to 3% for Blacks, although these differences showed smaller statistical significance. Illicit drug use, measured as any lifetime use of marijuana, cocaine, crack, PCP, nonprescription barbiturates, amphetamines, or tranquilizers, was somewhat more prevalent than inhalant use: 5% in the total sample, ranging from 5% among Other Hispanics, Cubans, and White nonHispanics, to 4% among Blacks, although these differences were not statistically significant. Blacks consistently had the lowest prevalence levels for each illicit substance. Blacks generally were found more often to show more of the measured risk factors, and White nonHispanics, Cubans, and other Hispanics were found more often to show fewer; but White nonHispanics had the highest percentage of respondents reporting seven or more risk factors. White nonHispanics with none of the measured risk factors were almost twice as likely as Blacks to have ever used alcohol, and Blacks had the strongest association between risk factors and alcohol use, as the proportion of lifetime alcohol users among respondents with seven or more risk factors nearly four times as great as the proportion among those with no risk factors. Illicit drug use showed a sharper curve, with a proportion of users near zero for those with none of the measured risk factors in each ethnic group, and with White nonHispanics, Cubans, and other Hispanics with seven or more risk factors clustered around 40%. Blacks with seven or more risk factors, however, had a proportion of any illicit drug use close to 12%.

Logistic regression revealed some significant correlations between specific risk factors and alcohol use among the different ethnic groups: perceived peer use with Cubans and other Hispanics; peer approval with Cubans, other Hispanics, and White nonHispanics; low family pride with Cubans, other Hispanics, and Blacks; willingness to engage in nonnormative behavior with Cubans, other Hispanics, and Blacks; and family substance use problems with other Hispanics. While the cumulative prevalence of risk factors bears a monotonic relationship to drug use, ethnic/racial differences in risk factor profiles, especially for Blacks, suggest differential predictive value based on cultural differences. Blacks seem to be considerably less vulnerable to the cumulative effects the measured risk

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factors, a finding which could indicate greater subcultural resilience among Blacks. The differences in both prevalence and risk factors found between Cubans and other Hispanics suggest that such distinctions are useful in both epidemiological and prevention studies, and that further research is called for.

- 234 Velez, C. N., & Ungemack, J. A. (1989). **Drug use among Puerto Rican youth: An exploration of generational status differences.** *Social Science and Medicine*, 29(6), 779-789.

An analysis of the relationship between generational status, or migrational experience, and adolescent drug use takes advantage of a natural experiment—the migration of Puerto Ricans to the continental United States and their immigration back to the island. Although researchers have studied different sources of variation in adolescent drug use behavior, few have examined the drug use experience of the same ethnic group in varying sociocultural settings. The present study focused on the drug use involvement of four generational status groups of Puerto Rican adolescent in two different settings—New York City and San Juan, Puerto Rico. The groups surveyed in New York City were: New York Ricans (New York City-born Puerto Ricans) and New York migrants (island-born Puerto Rican adolescents). The two groups identified in Puerto Rico were: Puerto Rican islanders (adolescents who had never lived outside of Puerto Rico) and Puerto Rican immigrants (New York City-born youngsters of Puerto Rican parentage whose families had returned to live on the island). In this study, it was hypothesized that the more the perceived environment dimensions of the different generational status groups have characteristics conducive to drug use, the greater the drug use involvement of the groups will be. The analysis confirmed that the drug use involvement of the four groups of Puerto Rican adolescent paralleled the exposure of the groups to a host society, New York City, which has a higher prevalence of adolescent drug use than the culture of origin, Puerto Rico. In addition, it was found that the longer New York migrants lived in New York City, the greater was their drug use involvement. The roles of various other sociodemographic factors (i.e. gender, grade level, family structure and socioeconomic status) in relation to adolescent drug use were also investigated. Two important conditional relationships were documented. First, the impact of length of time living in New York City varied with the adolescent's gender, with higher risk of drug involvement observed for female migrants. Second, socioeconomic status was associated with Puerto Rican adolescents' drug use involvement in the New York City subgroups, but not among the students in Puerto Rico.

- 235 Vidmar, S. H. (1992). **Decision-making attitudes among suburban fifth and sixth grade students.** Ph.D. dissertation. Ohio State University, Columbus, OH). *Dissertation Abstracts International* 53(5): 1411A.

Relationships were investigated between selected attitudinal, demographic and behavioral characteristics and factors that affect decisions to use or not to use alcohol or other drugs among 5th- and 6th-grade students in a suburban midwest community. The study sample consisted of all 5th- ($n = 685$) and 6th-grade ($n = 708$) students in each of the 10 elementary schools in a single midwestern suburban school district. The Primary Prevention Awareness, Attitude and Usage Scales Form 9a (PPAAUS) was the instrument used to collect the data for this study. As a group, the respondents indicated that (a) having close friends who liked and accepted them, (b) knowing the physical and emotional effects of drugs, and (c) fear of hurting family members if caught would be most important to them as they contemplated using or not using drugs. The factors least often selected were (a) having a fair and strict school policy, (b) having adult role models practice what they preach about drugs, and (c) having teachers notice their academic efforts. Students who indicated very favorable attitudes toward school felt that all of the decision-making options in the survey were very important, while students who indicated very unfavorable attitudes toward school felt that all of the decision-making options were not at all important. Significant differences were noted between the decision-making options considered important by students based on both gender and grade. More than 90% of the students responded that they would not use illicit drugs; 55% indicated a willingness to try beer, wine, and wine coolers; and over 30% indicated a willingness to try tobacco products. Students who indicated that they did not intend to use substances felt that all of the decision-making options included in the survey were very important in making a decision not to use substances.

Prevention Bibliography, 1992-1993

- 236 Wagenaar, A. C., Komro, K. A., McGovern, P., Williams, C. L., & Perry, C. L. (1993). **Effects of a saliva test pipeline procedure on adolescent self-reported alcohol use.** *Addiction, 88*, 199-208.

Self-reports on alcohol use collected via school-based questionnaires, telephone surveys, and household interviews are central measures in many studies in the alcohol field. The validity of such self-reports remains an issue. Use of biological pipeline procedures is one way in which the quality of self-reports might be improved. The current study tested the effectiveness of a saliva test pipeline procedure in increasing drinking disclosure rates among adolescent in the sixth and eighth grades. Two 6th-grade classes from each of 14 elementary schools ($n = 828$) and four 8th-grade classes from each of eight middle schools ($n = 754$) were selected. Half of the classes in each school were assigned to the pipeline condition and half to the control condition. Each student in the pipeline condition was asked to provide a saliva sample via dental role before completing a questionnaire that all students (pipeline and control) received. Pipeline students were told that "some of the saliva we collect today will be tested in a laboratory and will provide a biological measure of alcohol use." Sixth- and 8th-grade students exposed to the alcohol procedure reported 5-7% higher alcohol use prevalences than students in the control group. While the pattern of improved reporting under the pipeline condition held across four alcohol-use measures and two grade levels, the effect was statistically significant for only one measure. The pipeline procedures used here had small effects on adolescent self-reported alcohol use.

- 237 Waite-O'Brien, N. (1992). **Alcohol and drug abuse among female adolescents.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 367-). Gaithersburg, MD: Aspen Publishers.

Issues of female adolescent drug and alcohol abuse are reviewed. Adolescents, as a whole, are considered an underserved population in treatment and research on substance abuse. Because females make up a minority of that population, they tend to be ignored or included in research that is more descriptive of the adolescent male population. Issues discussed include predictive influences, personality factors as a correlate of drug use, societal attitudes, physiological differences, special problems such as rape, depression and parenting, and treatment.

- 238 Walcott Rounds, C. S. (1992). **Adolescent substance abuse as related to dimensions of the separation-individuation process.** Ph.D. dissertation. California School of Professional Psychology, San Francisco, CA). *Dissertation Abstracts International 53*(7): 3799-B-3780-B.

The literature from two broad areas—adolescent substance abuse and adolescent separation-individuation—was reviewed and found to suggest that adolescent substance abuse may be indicative of an adolescent's lack of necessary internal resources to face the challenges of separation-individuation. Within a context of psychodynamic theory and research, and an understanding of adolescence as the second stage of separation-individuation, adolescent substance abuse is related to an adolescent's resolution of the separation-individuation process. Sixty subjects were recruited from three residential treatment facilities for adolescents. Adolescent separation-individuation was assessed according to the Separation-Individuation Test of Adolescence (SITA). Drug and alcohol use was assessed with the Adolescent Drug Involvement Scale (ADIS) and the Adolescent Alcohol Involvement Scale (AAIS). The results of this study support the notion that there are several contributors or factors which combine to produce adolescent substance abuse. Although the results of this study were not significant, it may be that in order to investigate the role of separation-individuation in adolescent substance abuse, several existing threats to internal validity need to be controlled.

- 239 Walters, G. D. (1992). **Drug-seeking behavior: Disease or lifestyle?** *Professional Psychology: Research and Practice, 23*(2), 139-145.

Evidence in support of the disease concept of addictive behavior is reviewed, and the model on which this concept is based is found to be lacking in several respects. Among the drawbacks noted are the model's inattention to such issues as personal responsibility, self-efficacy, and autonomy, and its unamenability to empirical evaluation. A lifestyle theory of drug-seeking behavior with emphasis on thinking style and choice is, therefore, introduced as an alternative to the disease model. A comparative review of these 2 models concludes that the lifestyle approach to

drug-seeking behavior may be capable of capitalizing on the individual strengths of the disease model while offsetting its many limitations.

- 240 Ward, A. J. (1992). Adolescent suicide and other self-destructive behaviors: Adolescent Attitude Survey data and interpretation. *Residential Treatment for Children & Youth*, 9(3), 49-64.

Study of adolescent suicide attempts/completions did not support the view that mental illness was the sole or primary etiological source. Suicide was found to be associated with the self-destructive behaviors of (a) Runaway Behavior; (b) Teen Births; (c) Assaultive Behavior; and (d) Substance Abuse. Analysis suggested that these behaviors were failed attempts at resolving interpersonal conflicts, which had a communicative intent. The 104-item Adolescent Attitude Survey (AAS) was developed to examine this hypothesis. The AAS was administered to 67 male and female Chicago junior high school students and 105 female first-year students at a Chicago Catholic college. Significant correlations were found among the topics of Family Conflict, Life Stress, Suicidal Models (Family, Peers), and Suicidal Ideation/ Attempts.

- 241 Watts, W. D., & Ellis, A. M. (1992). Drug abuse and eating disorders: Prevention implications. *Journal of Drug Education*, 22(3), 223-240.

The relationship between drug and alcohol abuse and eating disorders is explored in a sample of Texas adolescent females using a self-report methodology. An Eating Disorders Risk (EDR) Scale is adopted and correlated with drug and alcohol use, other forms of deviance, family and peer relationships, and depression. The data suggest that preventive programs in the grades preceding and including 7 and 8 are needed, and have the potential to be successful in teaching young women the concomitant risks of addictive behaviors, including drug abuse and eating disorders. While young women at this age are already experimenting, engaging in drug use and other troubling behaviors, it is better to teach alternatives to ameliorating pain than leaving it up to adolescents to devise their own self-destructive strategies. A pattern has emerged among 7th- and 8th-grade young women turning to a number of adaptive strategies including drugs, alcohol, and eating disorders, whether as a cause of or in reaction to feelings of rejection from parents, depression, and peer attachment.

- 242 Webb, J. A., Baer, P. E., Francis, D. J., & Caid, C. D. (1993). Relationship among social and intrapersonal risk, alcohol expectancies, and alcohol usage among early adolescents. *Addictive Behaviors*, 18, 127-134.

Numerous studies have shown that adolescents' expectancies about the effects of alcohol influence usage. Expectancies are described as mediators between social influences (such as peer and parental influences) and alcohol use. The present study examined the relationship between social risk factors (peer influence and parental approval), intrapersonal risk factors (tolerance of deviance and sensation seeking), alcohol expectancies, and alcohol usage in a cohort of 1,244 7th-graders (53% female, 88% White) from a suburban school district near Houston, Texas. It was hypothesized that social risk factors affected alcohol usage indirectly through expectancies, while intrapersonal risk factors influenced usage both directly and indirectly. Structural modeling was used to examine the hypothesized relationships between these four constructs. Results indicated that the hypothesis that expectancies mediate social influences was not supported, and that social influences exerted a direct influence on usage independent of expectancies. Results suggested that the view that expectancies mediate social risk factors may need modification. Suggestions for future research in this area include the need to examine the relationships among these constructs longitudinally and with adolescents over a broader age range.

- 243 Wells, E. A., Morrison, D. M., Gillmore, M. R., Catalano, R. F., Iritani, B., & Hawkins, J. D. (1992). Race differences in antisocial behaviors and attitudes and early initiation of substance use. *Journal of Drug Education*, 22(2), 115-30.

Data collected as part of an ongoing longitudinal study of the relative contributions of childhood risk factors to the etiology of adolescent drug initiation, frequent use, and delinquency, and of the effects of preventive interventions, were examined to assess racial differences in self-reported delinquency, school trouble, antisocial attitudes, and toughness and in teacher-rated aggressive and inattentive behaviors among a population of 1,053 Seattle 5th-grade students. The sample was 47% White, 22% Blacks, and 22% Asian; 9% were members of other ethnic groups, and

since these numbers were too small to be significant, they were excluded from analysis. Also examined were the relationships of these variables to substance initiation within each racial group. Controlling for socioeconomic status, racial groups differed from one another in self-reported delinquency, school trouble and toughness, and in teacher-rated aggressiveness and inattention. Separate surveys administered at two different times assessed students' antisocial behavior and substance initiation. Data were also elicited from teachers on their students' antisocial behavior, and from school district records on sociodemographic variables. Eligibility for federally-funded free school lunches was used as an indicator of socioeconomic status (SES). Six risk-factor constructs were developed: self-reported delinquent behavior, school trouble, self-perception as less tough than peers, teacher's rating on aggression scale, teacher's rating on inattention scale, and self-reported attitude toward conventional norms.

Significant gender and race differences were found on all six of the risk constructs, but the race differences did not parallel those found for alcohol and tobacco initiation. Regression analyses showed that self-perception as less tough than peers was not predictive of substance initiation for any group, so that construct was dropped, and the analyses were redone. Overall problem behaviors, and attitudes favorable to conventional norms best predicted substance initiation for Asian students, less for Blacks, and least for Whites. Only one of the five variables, self-reported delinquent behavior, predicted initiation for all three racial groups. For Asians, the more antisocial their attitudes, the more they had initiated substance use. The two teacher ratings were significant predictors only for Whites. Neither SES nor gender predicted substance initiation for Asians, Blacks, nor Whites. The findings indicated that racial differences in substance initiation by the fifth grade could not be explained by difference in level of problem behavior, but that problem behaviors are variably predictive of substance initiation for different groups, more so for Asian Americans than for Blacks or Whites. But teacher ratings of problem classroom behavior were not related to initiation among Asians, perhaps because teacher ratings for aggressiveness were very low for the Asian students. Problems in school predicted substance initiation for Whites better than for Asians or Blacks, and problems outside of school were more significant for Blacks and Asians. These analyses call for further studies using larger samples. Each racial group represents a diverse collection of cultural traditions and heritage, but the present sample was too small to further divide. Finer ethnic distinctions might produce different results.

- 244 Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.

The lives of 505 individuals born in 1955 on the island of Kauai (Hawaii) were followed from the prenatal period to adulthood to examine their resilience in the face of childhood adversity or their recovery in later years. The Kauai Longitudinal Study monitored the impact of a variety of biological and psychosocial risk factors, stressful life events, and protective factors on the development of these individuals from a mixture of ethnic groups (primarily Japanese, Hawaiian, and Pilipino). One of every three members of this cohort was born with the odds against successful development. Nevertheless, one of every three of these high-risk children developed into a confident, capable, and caring young adult by age 18. This book, the fourth about this cohort, examines members at 30 years of age, with emphasis on work life, marriage, and parenthood. Attention is paid to outcomes for teenage mothers, juvenile delinquents, and children with mental health problems as they mature. A common core of individual differences and sources of support is beginning to emerge that ameliorates or buffers a person's responses to constitutional risk factors or stressful life events. Several case histories and vignettes illustrate the struggles of cohort members, and tables and figures present statistical information.

- 245 Whitehead, R., Chillag, S., & Elliott, D. (1992). *Anabolic steroid use among adolescents in a rural state*. *Journal of Family Practice*, 35(4), 401-5.

Anabolic-androgenic steroid use is an increasing problem among high school students. Previous reports have been mainly from metropolitan areas. We report the first study of anabolic-androgenic steroid use to concentrate on rural communities. The study was conducted using an anonymous survey of a random sample of male high school students ($N = 3,900$) in grades 10-12 encompassing 31 high schools in West Virginia, a predominantly rural state. Two-hundred five (5.3%) students reported using steroids. The prevalence of illicit drug use was significantly higher in steroid users (74%) than in nonusers (31%). The association was between anabolic-androgenic steroid use and illicit drug use rather than between sports participation of any type and illicit drug use. Comparison of the prevalence of illicit drug use among athletic (63.2%) and nonathletic (36.8%) steroid users found no significant difference. Findings were similar with cigarette use. There was no difference in the rate of steroid use by school enrollment (69 to 1495) or by city population size (< 200 to 64,000). The predominant reason for steroid use was to improve appearance (43%). This study found the prevalence of steroid use throughout a predominantly rural state to be similar to that found by previous studies conducted in metropolitan areas; prevalence was not affected by city or

school size. Steroid use was closely associated with illicit drug and cigarette use, a new finding that deserves further examination.

- 246 Wills, T. A., Vaccaro, D., & McNamara, G. (1992). **The role of life events, family support, and competence in adolescent substance use: A test of vulnerability and protective factors.** *American Journal of Community Psychology*, 20(3), 349-74.

A model of vulnerability and protective factors was tested with a multiethnic sample of 1,289 middle school students from parochial schools in Manhattan and the Bronx, aged 11-13 years. The criterion variable was a composite score for cigarette, alcohol, and marijuana use. Multiple regression analyses indicated that vulnerability factors (negative life events, negative affect) were related to a higher level of substance use, and protective factors (parent emotional and instrumental support, academic and adult competence, positive affect) were related to a lower level of substance use; peer competence was positively related to substance use in a multivariate model. There was a significant overall interaction of Vulnerability by Protective Factors, consistent with a stress-buffering effect. Individual interactions for Life Events by Family Support, Life Events by Competence, and Negative by Positive Affect also were consistent with buffering effects. These findings support prevention models which not only stress coping with negative affect but also try to increase positive affect, and furthermore include training in emotional communication and competence in relationships with adults.

- 247 Windle, M. (1992). **A longitudinal study of stress buffering for adolescent problem behaviors.** *Developmental Psychology*, 28(3), 522-530.

A 2-wave longitudinal design, with a 6-month interval between occasions of measurement, was used to study the interrelations between stressful life events, perceived social support from family and friends, and the internalizing (e.g., depressive symptoms) and externalizing (e.g., alcohol use and delinquent activity) of problems of a sample of 277 Western New York high school sophomores and juniors (mean age = 15.7 years, 97% White, 60% female). Although little support was found for the stress-buffering effects of either family or friend social support, the main effects of stressful life events and low family support were significant prospective predictors of problem behaviors for adolescent girls but not adolescent boys. Results are discussed with regard to mechanisms of differential gender socialization, such as the adolescent gender intensification hypothesis.

- 248 Winters, K. C. (1992). **Development of an adolescent alcohol and other drug abuse screening scale: Personal experience screening questionnaire.** *Addictive Behaviors*, 17, 479-490.

The development of a new adolescent alcohol and other drug abuse screening scale is summarized. The Personal Experience Screening Questionnaire (PESQ) is intended to meet the need for a quick, psychometrically adequate adolescent screening tool to measure the need for a comprehensive assessment. The development of the questionnaire's problem severity scale and evidence related to its reliability (internal consistency) and validity are described. The study to develop the scale involved a sample of 398 treatment clients in Minnesota. A replication sample included another 248. Both samples were 60% male, over 70% between ages 15-17, and over 90% White.

- 249 Yen, F. B. (1992). **Evaluating AOD program implementation.** Portland, OR: Western Regional Center for Drug-free Schools and Communities.

To highlight the importance of monitoring and documenting program activities, this publication covers basic ideas in evaluating AOD program implementation, various methods of gathering data, and suggestions on selecting instruments. Several instruments are reviewed which have been used by school districts and evaluators to monitor and evaluate program implementation. Some of the instruments described are paper-and-pencil questionnaires, checklists, and interview guides; others are microcomputer software programs. Examples of record-keeping forms are also included. Additional resources are listed, such as titles of journals and manuals that furnish more detailed explanations of particular topics, as well as names and telephone numbers of resource centers which educators and community representatives in the Western Region can contact to seek additional assistance.

Prevention Bibliography, 1992-1993

- 250 Yen, S. (1992). **Cultural competence for evaluators working with Asian/Pacific Island-American communities: Some common themes and important implications.** In M. A. Orlandi, R. Weston, & L. G. Epstein (Eds.), *Cultural competence for evaluators* (pp. 261-291). (OSAP cultural competence series 1). (DHHS Publication No. ADM 92-1884). Washington, DC: U.S. Government Printing Office.

In the past, the field of alcohol and other drug (AOD) abuse prevention has not focused aggressively on the problems of the Asian/Pacific Island-American population. Program evaluators working with Asian/Pacific Island-/American groups need both knowledge and skills that are not currently available in typical training programs. This chapter provides an overview of this complex problem and offers a number of solutions. The chapter is divided into two parts. The first part examines common themes and characteristics that are likely to arise when working with Asian/Pacific Island Americans. It reviews culturally specific factors and demographic variables within the context of AOD abuse treatment issues, and discusses significant similarities and differences between population subgroups. The second part of the chapter examines the relevance and implications of these themes for the process of program evaluation planning.

- 251 Yin, R. K., Schiller, E. P., & Teitelbaum, M. (1993). **Operation PAR.** (DHHS Publication No. ADM 93-1981). Washington, DC: U.S. Government Printing Office.

Successful community alcohol and other drug abuse prevention and treatment programs are described, along with effective strategies that will be useful in developing new programs at the community level.

- 252 Young, T. J. (1992). **Substance abuse among Native American youth.** In G. W. Lawson, & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment, and prevention* (pp. 381-390). Gaithersburg, MD: Aspen Publishers.

Native Americans are considered a high risk population with regard to alcohol and drug abuse. Whole tribes and cultures are in danger of being lost to this abuse. Various risk factors for Native American youth are reviewed and differences both within this population and between tribes are explored. It is concluded that further research is needed to resolve the controversy over the two most fundamental issues: the prevalence of Native American substance abuse and the reason why Native Americans use or abuse alcohol and other drugs. Intervention strategies must begin with the realization that Native Americans represent a diverse population. Treatment modalities that prove effective among one group of Native Americans may not be useful or appropriate among another group.

- 253 Zuckerman, K. (1993). **Prevention resource guide: Tobacco.** (DHHS Publication No. ADM 93-1985). Washington, DC: U.S. Government Printing Office.

Tobacco is one of the leading causes of death in the United States today, and likewise serves as a powerful "gateway" to other drug use. Adolescent cigarette smokers, in fact, are 100 times as likely to smoke marijuana than teenage non-smokers. This resource guide provides information and referrals for health care providers, educators, parents, and others who are concerned about the dangers and risks associated with tobacco use in this country.

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Gregory Austin, Editor
Western Regional Center for Drug-Free School and Communities
Southwest Regional Laboratory

1. ***Prevention Goals, Methods, and Outcomes.*** Gregory Austin. Fall 1988.
2. ***Substance Abuse Among Minority Youth: Native Americans.*** Gregory Austin. Winter 1988. (Out of print, replaced by Update 11).
3. ***Substance Abuse Among Latino Youth.*** Gregory Austin and M. Jean Gilbert. Spring 1989.
4. ***Substance Abuse Among Black Youth.*** Michael Prendergast, Gregory Austin, Ken Maton, and Ralph Baker. Fall 1989.
5. ***Substance Abuse Among Asian Youth.*** Gregory Austin, Michael Prendergast, and Harvey Lee. Winter 1989.
6. ***Substance Abuse Among Juvenile Delinquents and Gang Members.*** John A. Pollard and Gregory Austin. Spring 1990.
7. ***Substance Abuse Among Youth with Disabilities.*** Michael Prendergast, Gregory Austin, and John de Miranda. Summer 1990.
8. ***Young Children of Substance Abusers.*** Gregory Austin and Michael Prendergast. Winter 1991.
9. ***Substance Abuse Among Adolescent Females.*** Cristina Bodinger-de Uriarte and Gregory Austin. Summer 1991.
10. ***Ethnicity and Substance Abuse: Recent Research Findings.*** Gregory Austin and John A. Pollard. Summer 1993.
11. ***Substance Abuse Among Native American Youth.*** Gregory Austin, E. R. Oetting, and Fred Beauvais. Summer 1993.