AN ANNOTATED BIBLIOGRAPHY OF PAPERS ON DRUG ABUSE AMONG INDIAN YOUTH BY STAFF OF THE TRI-ETHNIC CENTER FOR PREVENTION RESEARCH

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Abstract: References and abstracts of articles on drug and alcohol use of American Indian youth that have been published by staff of the Tri-Ethnic Center for Prevention Research are provided. Publications begin in 1978, noting high rates of use, particularly of inhalants. Subsequent papers are concerned with epidemiology, psychosocial correlates of use, prevention, and treatment. The number preceding each entry refer, to the reprint filing system of the Tri-Ethnic Center. Requests for reprints may simply list the number of each article desired. Address reprint requests to:

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1. Goldstein, G. (1978). Inhalant abuse among the Pueblo tribes of New Mexico. In C. Sharp & L. Carroll (Eds.), *Voluntary inhalation of industrial solvents.* Rockville, MD: National Institute on Drug Abuse.

   Inhalant abuse is a significant problem in the pueblos, particularly among younger children and females. Inhalant users were like users of other heavy drugs on social questions. They may have chosen inhalants because of poverty and unavailability of other drugs.

2. Goldstein, G., Oetting, E. R., Edwards, R., & Garcia-Mason, V. (1979). Drug use among Native American young adults. *International Journal of the Addictions, 1979, 14*(6), 855–860.

Young adult American Indian students at a postsecondary educational institute showed a very high level of use of all drugs when compared with other samples of college-age youth. Alcohol, marijuana, and amphetamines were drugs of choice; 31% had tried inhalants, though there was little present use; 10% were involved in a drug subculture, using multiple drugs relatively heavily. The authors' interpretation of these findings is that either the institution attracts drug users or young American Indians from relatively isolated environments have higher susceptibility to drugs when they enter an urban (non-reservation) culture.

3. Oetting, E. R., & Goldstein, G. (1979). Drug use among Native American adolescents. In G. Beschner & A. Freidman (Eds.), *Youth drug abuse.* Lexington, MA: Lexington Books.

American Indians have higher rates of use of alcohol, marijuana and inhalants and less barbiturate use. Drug use was related to family breakdown, school problems, peer drug use, religious identification, and deviant attitudes and behavior. Inhalant users had a particularly low expectancy of meeting their life goals.

4. Oetting, E. R., Edwards, R., Goldstein, G., & Garcia-Mason, V. (1980). Drug use among adolescents of five southwestern American Indian tribes. *International Journal of the Addictions, 15*(3), 449–455.

Drug use by American Indian adolescents from five southwestern tribes is compared with a large national sample. American Indians show higher use of alcohol, marijuana, and inhalants from the 7th through the 12th grade. They show lower use of barbiturates. Peyote may be seen as less dangerous than LSD. There are no significant differences for other drugs. Cultural characteristics that may influence potential danger from drug use and intervention strategies are noted.

5. Oetting, E. R., Velarde, J., & Beauvais, F. (1980). Research shows increased drug use among Native American youth. *National Indian Health Board Health Reporter, 2*(7), 4–5.

Drug abuse is known to be a severe problem throughout the country; its effects are especially detrimental to the health and well-being of young people. Results and implications of research on drug abuse among American Indians are discussed. Among other things, the writers conclude that drug abuse is at least as prevalent among American Indian adolescents as it is among youth in the general population.

6. Oetting, E. R., Beauvais, F., & Velarde, J. (1982). Marijuana use by reservation Native American youth. *Listening Post,* 4(3) (Albuquerque, NM: Indian Health Service).

There is, at present, an epidemic of marijuana use among American Indian youth. When compared with non-Indian young people, American Indians are experimenting more with the drug, more of them are using it routinely and more are using it on a daily basis. The epidemic is national in scope. Although there are some differences in drug use across tribes,

recent surveys show very high marijuana use in every tribe that we have surveyed.

7. Beauvais, F., Oetting, E. R., & Edwards, R. (1982). Boredom, poor self-image, lead young Indian girl to drugs. *National Indian Health Board Health Reporter, 3*(2), 5–6, 9.

The article graphically describes a young Indian girl who has become involved with drugs. It illustrates the problems that are faced by many American Indian children.

9. Oetting, E. R., & Beauvais, F. (1983). The drug acquisition curve: A method for the analysis and prediction of drug epidemiology. *International Journal of the Addictions, 18*(8), 1115–1129.

A method is presented to chart how a group acquires exposure to a drug. The resulting drug acquisition curve has a number of different parameters that describe the group's drug involvement. Key parameters include: (1) the age of exposure when members of the group begin to use the drug in greater numbers, probably because of exposure to drug-using peers; (2) the acquisition rate (the percent of the group members who are newly exposed each year), a rate that is surprisingly constant over as many as five years; and (3) the asymptote, establishing the total percent of the group members who will eventually try the drug. Acquisition curves for sequential age cohorts show changing trends in these parameters and can also be used to predict future drug epidemiology. A four-year prediction based on this method proved to be very accurate for two of three drugs. For the third drug a large increase in use was predicted, but the increase was even greater than expected. (Later research confirms the value of the acquisition curve for describing age of drug involvement but suggests that the prediction results were fortuitous. The differences between acquisition curves probably occur because of dropouts.)

11. Beauvais, F., & LaBoueff, S. (1985). Drug and alcohol abuse intervention in American Indian communities. *International Journal of the Addictions, 20*(1), 139–171.

Indian culture is vital and growing, but federal policy has helped lead to inertia in community action. A strong activist climate can be used to revitalize Indian culture. Alcoholism is a critical problem and drug abuse a serious problem. Interventions must attempt to restore traditional harmony with nature and include self-determination, bolstering of community spirit, and grass-roots involvement.

12. Oetting, E., Edwards, R., & Beauvais, F. (1985). Reliability and discriminant validity of the children's drug-use survey. *Psychological Reports, 56,* 751–756.

The Children's Drug Use Survey assesses involvement with alcohol, marijuana, inhalants, and "pills" and includes experimental psychosocial items. It is short, easy to read and constructed so that it does not encourage drug use. Data are presented showing that the drug-use items have high reliability and discriminant validity. The scales should be useful

for studying drug involvement among both minority and non-minority youth; the scales possess adequate reliability for use as low as the 4th grade.

13. Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985). Trends in the use of inhalants among American Indian adolescents. *White Cloud Journal, 3*(4), 3–11.

Four large samples of American Indian adolescents have been surveyed since 1975 regarding their use of inhalants. When compared with non-Indian youth, Indian young people have shown much higher rates of inhalant use. Inhalant use is increasing for Indian youth, begins at a very early age and is often associated with use of other drugs. Peer and family attitudes do influence inhalant use and may possibly be employed as a means of reducing use of these dangerous chemicals.

14. Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985). Trends in drug use of Indian adolescents living on reservations: 1975–1983. *American Journal of Drug and Alcohol Abuse, 11* (3 & 4), 209–230.

Anonymous surveys on drug use were administered to 7th–12th grade students in Indian reservation schools. A large number of tribes were surveyed from 1975 through 1983. There is reason to believe the results are reasonably representative of Indian youth living on reservations. Lifetime prevalence for most drugs is higher than that for non-Indian youth throughout this period; and rates for alcohol, marijuana and inhalants, the most frequently tried drugs, were particularly high. Since 1981 there has been a slight drop in lifetime prevalence for most drugs. Current-use figures show the same trends, with increasing current use through 1981 and a drop since that time. Analysis of patterns of drug use — classifying youth according to number, type and depth of involvement with drugs — shows a similar trend, with radical increases until 1981 and then a drop in all but one of the more serious drug use types. Despite this drop, 53% of Indian youth would still be classified as "at risk" in their drug involvement, compared with 35% of non-Indian youth. Reasons probably relate to severely detrimental conditions on reservations: unemployment, prejudice, poverty, and lack of optimism about the future.

15. Oetting, E. R., & Beauvais, F. (1985, September). *Epidemiology and correlates of alcohol use among Indian adolescents living on reservations.* Paper presented at Epidemiology of Alcohol Use and Abuse Among U.S. Minorities Conference, Bethesda, MD.

Indian adolescents are compared with their non-Indian counterparts for lifetime prevalence, recent use, age of first use, and daily use of alcohol over the past 10 years. Sex differences between and within the samples are also examined. Exploration of the relationship between alcohol use and the use of other drugs shows similarities and differences between the use of alcohol and various other licit and illicit substances. A further understanding of the context of alcohol use is provided by showing the relationship of alcohol use to a variety of psychological and social factors. General domains of interest include cultural identification, family relationships, school adjustment, peer encouragement and sanctions,

personal adjustment, tolerance of deviance and deviant behavior, and expectations for the future. Implications for interventions are discussed briefly. The final sets of data provide insights into the reasons or rationales Indian adolescents give for their use of alcohol and the specific social contexts in which alcohol is used. These data sets are especially useful in understanding the forces that initiate and perpetuate Indian adolescent alcohol use.

16. Beauvais, F. (1986, April). *Social and psychological characteristics of inhalant abusers.* Paper presented at World Health Organization Advisory Group meeting on Adverse Health Consequences of Volatile Solvents/Inhalants, Mexico City.

No single description can include everyone who used inhalants. Inhalants are cheap, easily available and an easy route to relief. Those most susceptible are marked by having families from ghetto or marginal areas, poor school performance, and few opportunities to develop self-esteem. Inhalant users seek support from peers and are likely to choose dysfunctional peers. These peer clusters actively encourage each other and provide few sanctions against use. Theft and other crimes become common. Once a group use is firmly established, some youth enter long-term chronic patterns of inhalant use that extend into adulthood.

20. Oetting, E., & Beauvais, F. (1986a). Peer cluster theory: Drugs and the adolescent. *Journal of Counseling and Development, 65*(1), 17–22.

The authors review several theories advanced to explain adolescent drug use to provide background for describing peer cluster theory. Peer clusters — small subsets of peer groups, including pairs — dictate the shared beliefs, values, and behaviors that determine where, when, and with whom drugs are used and the role that drugs play in defining cluster membership. Peer cluster theory incorporates those psychosocial factors that promote or inoculate against drug use by youth.

21. Oetting, E. R., & Beauvais, F. (1986b). Clarification of peer cluster theory: A response to Peele, Cohen and Shaffer. *Journal of Counseling and Development, 65*(1), 29–30.

There is no one research paradigm or "grand theory" that will lead to progress in understanding substance use. It has multiple causes, and multiple methods are needed to understand the physical, social, and psychological factors that lead to adolescent substance use. Peer cluster theory leads to statements that can be falsified and that should be tested. Peer cluster theory implies that like children group together and that their influence on each other then determines their behavior. The youth is both seduced by and seduces his or her friends into substance use.

23. Beauvais, F. (1977). Counseling psychology in a cross cultural setting. *Counseling Psychologist, 7*(2), 80–82.

The author summarizes his experiences working as a counselor at a Navajo Community College and discusses health care training, learning problems, career development, values related to education, learning

behaviors, and cognitive patterns of Navajo students. Counselors need a broad background of training, and evaluators of programs need to be involved in the assessment of the complex and subtle interactions between people, systems, and programs rather than in controlled experimental research.

72. Oetting, E. R., Edwards, R. W., & Beauvais, F. (1988). Social and psychological factors underlying inhalant use. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update.* Rockville, MD: National Institute on Drug Abuse. (Research Monograph No. 85)

Literature is reviewed and data from a study of inhalant users are presented. "Ever tried" rate drops after 8th grade, perhaps because of dropouts. Young users use with peers, and use is related to local community epidemics, disrupted families, school performance, deviance, alienation, and emotional adjustment.

73. Beauvais, F., & Oetting, E. R. (1988a). Indian youth and inhalants: An update. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update.* Rockville, MD: National Institute on Drug Abuse.

Indian youth are more susceptible to inhalant use, and rates of use are increasing among younger children. About 4% of high school seniors are using inhalants heavily enough to warrant serious concern. A larger number of dropouts may be using inhalants heavily. Inhalant use may begin when children are very young, and prevention efforts need to start very early if they are to succeed.

74. Beauvais, F., & Oetting, E. R. (1988b). Inhalant abuse by young children. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update.* Rockville, MD: National Institute on Drug Abuse. (Research Monograph No. 85)

Six published studies indicate that there is significant inhalant use by children younger than 12, particularly minority children. Nothing is known about the correlates of this use.

75. Binion, A., Miller, C. D., Beauvais, F., & Oetting, E. R. (1988). Rationales for the use of alcohol, marijuana and other drugs by Indian youth. *International Journal of the Addictions, 23*(1), 47–64.

This study examined rationales for alcohol, marijuana and other drug use among Indian and non-Indian youth. Differences were found between reservation Indian and rural non-Indian rationales for alcohol, marijuana, and other drug use. A majority of both Indian and non-Indian 8th graders indicate that they use drugs to enhance positive affective states, for excitement, for parties, to be with friends, to relax, and to handle negative affective states including worries and nervousness. Indian youth appear to use drugs also to cope with boredom. Unlike non-Indian youth, Indian youth have no strong rationales for their use of other drugs. Interventions will have to be impactful and pervasive in order to counter the many positive and negative rationales associated with drug use.

79. Loretto, G., Beauvais, F., & Oetting, E. R. (1988). The primary cost of drug abuse: What Indian youth pay for drugs. *American Indian and Alaska Native Mental Health Research, 2*(1), 21–32.

Based on responses to a 1984 survey on a large Indian reservation, conservative estimates are made of the total dollars spent by Indian youth (grades 7 through 12) across the country on drugs and alcohol. The total figure estimated for one year is $8.3 million. These are only out-of-pocket expenditures and do not include other costs associated with substance abuse such as medical care, loss in productivity, accidents, or emotional and social consequences.

80. Beauvais, F., & Oetting, E. R. (1987). Toward a clear definition of inhalant abuse. *International Journal of the Addictions, 22*(8), 779.

The study of the nature and extent of the use of volatile psychoactive substances such as glue, gasoline, anesthetic gases and nitrites have all been discussed under the single rubric of "inhalant abuse." A classification scheme is proposed that differentiates users of substances such as volatile hydrocarbons (gasoline, glue, etc.) from users of the anesthetic gases and the amyl and butyl nitrites. As users of these three types of volatile chemicals differ in predisposing factors, level of dysfunction, and consequences of use, the former group should be classed generically as "inhalant" users, and the latter should be diagnosed as users of a specific drug.

81. Oetting, E. R., Beauvais, F., & Edwards, R. W. (1988). Alcohol and Indian youth: Social and psychological correlates and prevention. *Journal of Drug Issues, 18*(1), 87–101. Reprinted as a chapter in *Alcohol Problems of Minority Youth in America*, R. Wright, Jr., & T. D. Watts (Eds.), 143–163, Vol. 2 of *Interdisciplinary Studies in Alcohol Use and Abuse*. Lewiston, NY: Edwin Mellon Press.

This chapter relates psychosocial correlates to prevention. Young American Indian heavy alcohol users (ages 12 to 16) were matched with non-users. Alcohol users did not have more emotional problems, did not experience less alienation or did not feel less self-confident or less socially accepted than non-users, but they did use other drugs and were more deviant. Alcohol users more often came from broken families, felt less family caring, and had fewer family sanctions against substance use, had poorer school adjustment, had less hope for the future and had friends encouraging alcohol and drug use. Prevention programs should start very early and should focus on increasing family strength, improving school adjustment, providing opportunities for the future, breaking up deviant peer clusters, and building peer clusters that discourage alcohol and drug use.

84. Beauvais, F., & Oetting, E. R. (1987). High rate of drug use among Native American youth. National Institute on Drug Abuse, *NIDA Notes, 2*(2), 14.

The authors provide a brief review of data on drug use and Indian youth showing that, even though rates of use finally seem to be declining, nearly half of young American Indians are still at risk of becoming seriously involved in drug abuse.

96. Oetting, E. R., Swaim, R. C., Edwards, R. W., & Beauvais, F. (1989). Indian and Anglo adolescent alcohol use and emotional distress: Path models. *American Journal of Alcohol and Drug Abuse, 15*(2), 153–172.

Anonymous surveys of alcohol use and emotional distress of 11th- and 12th-grade students were administered to 327 reservation Indian adolescents and 524 Anglo adolescents. Path models based on peer cluster theory were developed and tested. Results argue against a self-medication theory of adolescent alcohol use. Emotional distress variables had little effect on alcohol involvement, with the exception of anger, which operated in opposite directions for the two groups. The highest relationship with alcohol involvement in both groups was with peer alcohol associations, confirming the a priori hypothesis that much of adolescent alcohol use is linked to peer associations. Those relationships, however, were much stronger in Anglo youth, suggesting that alcohol may be used more frequently in non-peer situations by Indian youth or at least in situations in which the peers are not those close friends who have very similar patterns of alcohol use. The most important difference between Indian and Anglo youth, however, may be the role that anger plays in alcohol involvement. In Anglo youth, anger may be associated with problem behaviors including alcohol use. In Indian youth, higher anger is linked to higher self-esteem and tends to reduce alcohol use. (This last finding may be specific to only one or two locations, or it may be a random result. It has not been confirmed in one other sample. Further studies are in progress.)

97. Beauvais, F., Oetting, E. R., Wolf, W., & Edwards, R. W. (1989). American Indian youth and drugs: 1975–1987 — A continuing problem. *American Journal of Public Health, 79*(5), 634–636.

Continuing surveillance of drug use among American Indian adolescents living on reservations show them to have rates of use higher than those of their non-Indian counterparts. Marijuana use is particularly high among Indian students. By the 7th grade a significant number of Indian youth have tried drugs, particularly marijuana and alcohol, and there are few significant differences by gender. Observed patterns of use indicate that intervention strategies need to begin in the elementary school years and target both males and females equally.

99. Oetting, E. R., Edwards, R. W., & Beauvais, F. (1989). Drugs and Native-American youth. *Drugs and Society, 3*(1-2), 5–38. Reprinted as a chapter in *Perspectives on Adolescent Drug Use,* B. Segal (Ed.). New York: Haworth Press.

Reservation American Indian youth (ages 12–17) use drugs more than other youth, particularly marijuana, inhalants, stimulants, and cocaine. Anti-drug messages may have influenced light users, whose use has dropped, but not heavy users; one in five Indian youth use drugs other than marijuana, a rate constant since 1981. Drug use is linked neither to emotional distress nor to acculturation stress. It is related to peer drug associations, though less strongly than in Anglo youth, and is linked more directly than in Anglo youth to family influence. Root causes may be poverty, prejudice, and lack of social, educational, and economic opportunity on

reservations.

101. Edwards, R. W., Oetting, E. R., Beauvais, F., & Swaim, R. C. (1988, November). Cocaine, alcohol, and drug use among American Indian and Mexican-American youth. Paper presented at *116th Annual Meeting of the American Public Health Association,* Boston, MA.

School-based studies since 1975 show that drug use increased among Indian youth to 1981 and has declined since then, but Indian youth consistently have higher rates of drug use than are found in the general population over that entire period. Dropout rates are high for Indian youth, so they may have even higher rates of drug use than these data show. In general, drug use of Mexican-American youth is not as high as it is among their non-minority counterparts, but dropout rates are high, so these rates may underestimate true rates of use. Reasons that Mexican-Americans are overrepresented in drug admissions in emergency rooms are discussed.

103. Beauvais, F. (1989). Limited notions of culture ensure research failure. *American Indian and Alaska Native Mental Health Research, 2*(3), 25–28.

Assuming that people will move from an "old" culture to a "new" one, losing one to gain the other, is inappropriate. The transition from one culture to another is not a zero-sum game. The perceived inadequacy of the Inupiat is shown by the nearly total absence of their participation in the research study. The project needed more time, a mechanism for utilization and professional rather than "press" release of data.

105. Oetting, E. R., & Beauvais, F. (1989). Orthogonal cultural identification theory: The cultural identification of minority adolescents. *International Journal of the Addictions, 25*(5A & 6A), 655–685.

A theory of cultural identification is presented indicating that identification with different cultures is orthogonal. Instead of cultures being placed at opposite ends of a continuum, cultural identification dimensions are independent of each other, and increasing identification with one culture does not require decreasing identification with another. Studies of American Indian and Mexican-American youth show that (1) identification with Anglo (White American) culture is related to having Anglo friends and to family acceptance of an Anglo marriage; (2) identification with either the minority or the majority culture is a source of personal and social strength; and (3) this greater strength, however, does not translate automatically into less drug use, because drug use is related to how much the culture that the person identifies with approves or disapproves of drugs.

111. Beauvais, F. (1989, October). An integrated model for prevention and treatment of drug abuse among American Indian youth. Paper presented at "Whatworks" Conference, New York State Division of Substance Abuse Services.

The path leading to drug use moves from social situations through socialization links through psychological factors to peer clusters, where drug use takes place. Prevention starts up this path and treatment down.

Areas that need more investigation include peer clusters, cultural identification, dropouts, and community development.

112. Beauvais, F. (1988). Inhalant abuse: A little understood behavior. *Proceedings: Oklahoma Mental Health Research Institute 1988, Professional Symposium,* Vol. 1, 47–53. Oklahoma City: Oklahoma Mental Health Research Institute.

This publication describes inhalant use and the three types of users: (1) inhalant dependent adults, (2) adolescent poly-drug users, and (3) young inhalant users. The effects of inhalants and the possibilities for treatment are discussed.

113. Oetting, E. R., & Beauvais, F. (1990). Adolescent drug use: Findings of national and local surveys. *Journal of Consulting and Clinical Psychology, 58*(4), 385–394.

Adolescent drug use increased until about 1981, but since then it has steadily declined. Current data show some drug use in the 4th and 5th grades and considerable increases from the 6th to the 9th grades. For drugs such as marijuana, cocaine, and stimulants, lifetime prevalence continues to increase through high school; for drugs such as inhalants and heroin, lifetime prevalence may decline for grades 10, 11, and 12, suggesting that students who use these drugs early may drop out. Drug use of rural youth is similar to that of other youth. Barrio, ghetto and American Indian reservation youth may have high rates of use, but use of Black and Hispanic seniors may be equivalent to or less than that of White seniors. National data and broadly defined ethnic data, however, may cover up important subgroup differences. For example, western Mexican-American girls have lower use than western Spanish-American girls, possibly because of the greater influence of *marianismo.* Different locations may also have very different patterns of adolescent drug use, calling for different types of local intervention.

119. Oetting, E. R., & Webb, J. Psychosocial characteristics and their links with inhalant use: A research agenda. To be published in a forthcoming volume.

The literature on psychosocial correlates of inhalant use is reviewed, showing great consistency over time. Inhalant users tend to be the least successful in society, the most alienated and the most emotionally disturbed of all drug-using groups. A model is presented for planning psychosocial research on inhalant use; recommending specific studies using different methods of research and aimed at the three groups of inhalant users, inhalant dependent adults, adolescent poly-drug users, and young inhalant users.

121. Swaim, R. C., Oetting, E. R., Thurman, P. J., Beauvais, F., & Edwards, R. American Indian adolescent drug use and socialization characteristics: A cross-cultural comparison. Manuscript submitted for publication.

The socialization variables of family strength, religious identification, school adjustment, family sanctions against drug use, and peer associations correlate with youth drug abuse. A path model testing the

relationships between these variables among Anglo youth has shown that peer drug associations mediate the influence of the other factors and that with minor exceptions peers are likely to be the dominating force in youth drug abuse (Oetting & Beauvais, 1987b). The current study applied the same path model to a group of American Indian youth and the findings were replicated, with two important exceptions: peer drug associations, though still dominant in the model, were not as highly correlated with drug use for Indian youth, and family sanctions against drugs had a direct influence on drug use in addition to an indirect influence. Differences in family dynamics among American Indian youth may account for the findings; Indian youth may associate more with and learn about drug use from same-aged siblings and other relatives in the extended family, and they may have a greater number of adult family figures to apply sanctions against drug use.