

NEPENTHE

Newsletter on Drug and Alcohol Issues published by the University of Washington Alcoholism and Drug Abuse Institute and the Washington State University Alcoholism Training and Research Unit

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USE OF DRUGS BY HIGH SCHOOL SENIORS

A national survey of high school senior drug and alcohol use conducted by Lloyd D. Johnston, Gerald G. Bachman, and Patrick M. O'Malley of the Institute for Social Research at the University of Michigan was released in mid-January. Funded by the National Institute on Drug Abuse, this survey reported on findings related to changes in drug-consuming behavior among high school seniors over the past three years. In that period of time, the proportion of high school seniors who have used illicit drugs has increased from 55% to 62%. Most of this increase is due to the increasing numbers who have used marijuana. The proportion of high school seniors who have used marijuana has risen from 19% to 25%. Included in this study were some 124 public and private high schools with approximately 1,800 seniors being studied each year. Among the major findings are:

- 62% reported some illicit drug use in their lives, but 42% of those who had used any drugs had used only marijuana.
- The most widely used illicit drug is marijuana with 56% reporting use at some time, 48% in the past year, and 35% in the past month.
- Nearly one-third of the seniors had used an illicit drug other than marijuana (hallucinogens, cocaine, heroin, stimulants, sedatives or tranquilizers other than under a doctor's prescription).
- The least frequently used illicit drug was heroin, which was used by 1.8%. 23% of the seniors had used stimulants, 18% had used tranquilizers, 17% had used sedatives, and 14% had used hallucinogens.
- 93% of the seniors had tried alcohol and 76% had smoked cigarettes at some time in their lives.
- Cigarettes were used daily by 29% (more than any other of the drugs) and 19.4% reported use of more than half a pack per day.

- 9.1% of the individuals use marijuana on a daily basis.
- 6.1% consume alcohol on a daily basis. The use of hallucinogens appears to be dropping while the use of cocaine appears to be increasing. The proportion using hallucinogens dropped from 11.2% to 8.8% in the three-year period. The use of cocaine increased from 5.6% to 7.2%.
- There was a small increase in the proportion of individuals having used alcohol during the three-year period.
- In terms of sex differences, those using cigarettes on a daily basis are about equally represented among males and females. However, more males are likely to use both marijuana and alcohol on a daily basis than are females (12.4% versus 5.6% for marijuana; 8.6% versus 3.6% for alcohol).

The investigators also asked high school seniors about their attitudes and beliefs concerning mood-altering substances. Among the findings were the following:

- Only about one-third believe that regular marijuana use involves great risk, while two-thirds believe that regular use of other illicit drugs entails great risk.
- 58% believe that daily cigarette use involves great risk of harm.
- 68% believe heavy drinking is a risk.
- More than 90% disapprove of regular use of the illicit drugs other than marijuana.
- Two-thirds disapprove of heavy daily use of alcohol or smoking.
- 59% favor prohibiting the use of marijuana in public.
- 81% favor prohibiting the use of heroin in public.
- 42% believe that cigarette smoking in public places should be prohibited by law.

Nepenthe (ni-pen-the), n. (L. Gr. nepenthes, removing sorrow; ne-, not + penthos, sorrow, grief) 1. a drug supposed by the ancient Greeks to cause forgetfulness of sorrow, 2. anything causing this state.

TEENAGE SUBSTANCE ABUSERS:
A TWO-DAY WORKSHOP

The Alcoholism & Drug Abuse Institute will offer a two-day workshop entitled, "Adolescents, Alcohol & Drugs: A Two-Day Workshop on Practice Issues", on April 12-13, 1978. The workshop will be held on the University of Washington campus and will be led by Elizabeth R. Morrissey, Research Consultant at the Institute; Michelle McClung, Family Counselor at the Community Personal Guidance Center in Spokane; Lloyd Bair, Director of the Southwest Community Alcohol Center; and Sherry Anderson, Treatment Director of Second Chance, King County Juvenile Court.

Increasing federal, state and local resources are being committed to the development of programs to serve teenage alcohol and drug users. At the same time, information about new programs and adolescent clients is expanding, making it difficult for the conscientious practitioner to keep up with the latest developments in the field.

This two-day workshop will summarize recent information on adolescent alcohol and drug use, identify problem areas and issues, and provide participants with concrete ideas for program development, case identification and management, and for monitoring program effectiveness. The workshop will consider issues relevant to youth counselors, program directors, planners, and evaluators.

Among the issues to be addressed are:

• The Adolescent Abuse Epidemic: Fact or Fallacy?

Prevalence of use, abuse, and problems. Historical trends--teenage use and abuse in the 50's and 60's. Are the 70's different?

• Characteristics of Adolescent Users and Abusers

The natural history of use and abuse among teenagers: the progression from legal to illicit drugs, polydrug use. Factors resulting in dependency: family and peer influences, psychological factors. Patterns of use among special subgroups: females, children of abusing parents, delinquent youth.

• The Practice Dilemma: Client Needs & Institutional Responses

Given available information, how can effective strategies be designed? Prevention, education, outreach, and treatment. Targeting prevention/education efforts; designing outreach and treatment strategies. What are other states doing? Responses to the individual client: diagnosis and counseling.

• Monitoring Response Effectiveness: Program Evaluation and Case Management

Evaluating treatment processes and outcomes. Setting goals for programs and clients: How can we measure outcomes? Feedback to program staff & clients: What can outcome measures tell us? Redirecting efforts based on program & client evaluations.

RECOVERED ALCOHOLIC FOSTER PARENTS SOUGHT

Second Chance, King County Youth Alcoholism Program, in association with the Casey Family Program, would like to contact recovered alcoholics interested in providing foster homes for teenage graduates of the program.

The young people needing foster care have satisfactorily completed an average of twelve weeks as inpatients of the Second Chance Program and for one reason or another do not have a home to which to return.

If you would like to help give a young recovering alcoholic a new start, or for further information, call June Poulos at 365-9737.

SEATTLE UNIVERSITY'S SUMMER SYMPOSIUM

Seattle University's 29th Annual Symposium on Alcoholism will use a new format this Summer, giving options for advanced students while presenting basic information with a stress on youth.

Lorie Dwinell, M.S.W., A.C.S.W. will conduct "Group Dynamics in Alcoholism Treatment" each morning for two weeks, while in the afternoon one may choose between "Alcohol and Youth" and a new course on "Alcohol and the Family" taught by Alma Gentry, M.S.W., A.C.S.W. Ms. Dwinell is widely known throughout the Northwest as an alcoholism teacher, counselor, and group leader. Ms. Gentry was a research associate of Dr. Joan Jackson, the world authority on the spouse and family of the alcoholic. She is the former director of the Central Area Mental Health Center in Seattle and was a long-time social worker with the Seattle Public Schools. She is an experienced instructor and was named a fellow in Community Health at the University of Washington. She has lectured widely on the children of the alcoholic.

The Youth, Group, and Family course are two quarter credits each and are open to those who have college credit in a survey course on alcoholism. Others will take a basic alcoholism course in the morning combined with the afternoon sessions featuring specialists on youth, education and prevention in a 4-credit package designed for teachers, school counselors, health educators and alcoholism workers. It will count toward the basic Certificate in Alcohol Studies offered at Seattle University, while the 2-credit courses will count toward the Advanced Certificate for those who are eligible.

All classes run from June 26 to July 7 daily, except for July 1, 2, and 4. There are also regular summer session courses in both basic and advanced programs, running from June 19 to August 10. Application deadline is June 1. Forms may be obtained by calling: (206) 626-6498 or writing to the Alcohol Studies Program, Seattle Univ., 12th & E. Columbia Sts., Seattle, WA 98122. There is a \$10 application fee for those who have never attended Seattle University. Former students may simply apply through the Registrar's office for readmission.

(Continued, Pg. 3)

Those whose applications have been accepted may register and pay at the first class session. Tuition and fees total \$40 per credit, or \$20 per credit if audited. No scholarships are available.

Information on room and board may be obtained by calling: (206) 626-5920 or writing the Office of Student Residence Services, Seattle University, 12th and E. Columbia Sts., Seattle, WA 98122.

RESEARCH ON PREDICTION
OF SUBSTANCE ABUSE PROPOSED

The Alcoholism and Drug Abuse Institute at the University of Washington has recently submitted a proposal for a \$205,000 research project to the National Institute on Drug Abuse. This study, which would commence July 1, 1978, and continue for a period of two and one-half years, would consist of a three-year follow-up of 1,473 adolescents originally interviewed in three King County Community Alcohol Centers and in King County Juvenile Court Detention. The research would be under the direction of Elizabeth Morrissey, Research Consultant.

During the course of the project, young people interviewed in the Community Alcohol Centers and Juvenile Detention between August, 1975, and December, 1976, will be reinterviewed to determine whether there have been changes in their levels of alcohol and drug use and related problems. The goal of the research is to isolate factors which are predictive of the persistence of substance abuse into late adolescence and early adulthood, as well as to examine conditions which result in the remission of abuse patterns.

Based on a review of existing research findings, several sets of predictor variables have been selected for inclusion in the study. It is expected that initial levels of substance use and related problems, prior history of psychiatric difficulties, seriousness of delinquent history, and sex role attitudes and behaviors will be related to outcome levels of alcohol and drug use. The project would test specific hypotheses regarding each of these predictors.

The proposal was submitted to the National Institute on Drug Abuse on November 1, 1977, and is now being reviewed by that agency.

NOTES ON CURRENT RESEARCH

Dr. Alan G. Fantel, a Research Assistant Professor in the Department of Pediatrics, has received a grant from the Alcoholism and Drug Abuse Institute to study the effects of cocaine on the developing fetus. Despite the increasing use of this drug in the United States, very little information is available on the consequences of cocaine use in pregnant women. An animal model will be used where the offspring of pregnant rats which have been administered cocaine will be evaluated for structural malformations while similar

observations are carried out on a control group of animals. It is hoped that this study will add to our presently limited knowledge of the properties of this powerful drug.

Dr. William A. Catterall of the Department of Pharmacology has received an Alcoholism and Drug Abuse Institute grant to study the mechanisms of actions of various drugs, including narcotics. The actions of important brain chemicals and various toxins will be used in a laboratory model to understand more about brain cell functioning, especially as it relates to drugs of abuse.

ALCOHOL AND HEALTH REPORT
TO BE ISSUED

The United States Congress is about to receive the Department of Health, Education, and Welfare's most recent Alcohol and Health Report. Among the findings discussed in that report are the results of research concerning American drinking behavior patterns. Some of the observations made are as follows:

- Men are four times as likely to be represented among heavy drinkers as are women. The 18-24 year-old age group for men represents the heaviest drinking period, while for women it is the age range between 21 and 34. The highest proportion of abstainers is found among the elderly.
- Those with more education tend to drink more than those with less education. Abstainers are more heavily represented among those with less than an eighth grade education.
- With reference to financial status, moderate or heavy drinking is more common among those who are more wealthy. Abstainers are more likely to be found among the poor.
- With regard to occupational groups, farmers are among the lowest in terms of the proportion of drinkers and heavy drinkers among their ranks. The highest proportions of drinkers can be found among those who are professionals and businessmen.
- Abstainers are more likely to be found in rural areas and small towns, with cities and suburbs being the residential locale for those who are heavy drinkers.
- Irish Americans are more likely than are other subgroups in America to experience problem drinking associated with their alcohol consumption. The highest proportions of heavy drinkers show up among Roman Catholics as compared to other religious groups. The lowest proportion of abstainers are found within the Jewish religion.

- *The influence of the environment on drinking patterns is also noted in this research. One's drinking colleagues are likely to influence an individual's drinking patterns. Apparently people drink less than usual when they are in social meetings with neighbors, members of their church, or members of their own families. People tend to drink more than usual when they are with close friends. Geographical influences on drinking include such factors as Nevada and the District of Columbia being the locale for heavy drinking, partly in response to the high degree of tourism that occurs there. Consumption also tends to be relatively high in vacation states.*

- *The United States now ranks 15th internationally in terms of total consumption of absolute alcohol. The highest levels of consumption are found in France, Portugal, and Italy, most of this being accounted for by wine.*

DEADLINE FOR SUBMISSION OF GRANT PROPOSALS

Faculty at the University of Washington who wish to seek funding from the Alcoholism and Drug Abuse Institute Small Grants Program should submit their applications no later than July 1, 1978. Guidelines for the submission of grant proposals may be requested by contacting the Alcoholism and Drug Abuse Institute (543-0937).

MODEL ALCOHOL CURRICULUM HOLDS PROMISE

For the past two years, the Educational Service District (ESD) No. 121 in King County has had a contract with a research group in the Alcohol Studies Program at Washington State University for an ongoing evaluation of the "model" alcohol education curriculum which the ESD developed with NIAAA funding. The evaluation effort, led by sociology professor Armand Mauss and psychology professor Ronald Hopkins, has so far produced two reports on the effectiveness of the teacher-training component of the new alcohol education program. Data are now being gathered from classrooms around the county for use in assessing the impact of the new curriculum on the students themselves, and a preliminary report from these data will be issued in the Spring. A limited longitudinal aspect of the project (for a 2-year period) has been made possible through a follow-up system that can track individual students from grade to grade without violating their anonymity. The initial results from student data indicate that the new curriculum has considerable promise as a vehicle for promoting strong self-concepts, enhanced coping skills, and responsible decision-making about the use of alcohol among the students. Future research will also be able to address drinking behavior itself and assess the impact

of the new curriculum on such behavior by means of a control group/experimental group design.

The researchers have recently submitted a grant proposal to the National Institute on Alcohol Abuse & Alcoholism (NIAAA) for funding that will make possible a 5-year longitudinal study of the students exposed to this new alcohol education curriculum, including a capability for following high school graduates into early adult life, to ascertain the longer term impact of the curriculum upon alcohol-related attitudes and behavior. If funded, this project will have a much larger scope than that which has been possible under the current contract with ESD-121. In addition to Professors Mauss and Hopkins, key members of the research staff are John Tarnai, Nancy Fagan, Julie Elworth, and Kevin Gully, all doctoral students in psychology or sociology at W.S.U.

UPCOMING MEETING

University of Alaska

SUMMER FORUM:

"Changing Concepts of Alcoholism"

June 19-21, 1978

Anchorage, Alaska

Featured Speakers:

Dr. Robert Straus

Dr. Reginald Smart

Dr. Gerald Globetti

Contact:

Carol Molinari, Director

Ctr. for Alcohol & Addiction Studies

University of Alaska, Anchorage

3211 Providence Drive

Anchorage, Alaska 99504

ART SIMMONS APPOINTED TO PRESIDENTIAL PANEL

Art Simmons, the Executive Director of Seattle's Center for Addiction Services was recently appointed to the newly formed liaison panel on psychoactive drug use/misuse. This panel is a part of the President's Commission on Mental Health and has as its chairperson Dr. Norman Zinberg of the Harvard Medical School Department of Psychiatry. In addition to Zinberg and Simmons, other members of the panel are: Annette Abrams-Strandmark, Philadelphia, Pennsylvania; Professor Howard Becker, Department of Sociology, Northwestern University, Evanston, Illinois; Dr. Vincent Dole, Rockefeller University, New York City; Professor Arthur Hellman, School of Law, University of Pittsburgh; Dr. Eric Josephson, School of Public Health, Columbia University, New York City; Dr. Robert Millman, New York City; Dr. John Newmeyer, Haight-Asbury Free Medical Clinic, San Francisco; Dr. Marie Nyswander,

Rockefeller University; Dr. Pedro Ruiz, Department of Psychiatry, Albert Einstein School of Medicine, Bronx, New York; Dr. Stanley Schacter, Department of Psychology, Columbia University; Dr. J. Thomas Ungerleider, The Neuropsychiatric Institute, UCLA Center for the Health Sciences, Los Angeles; and Dr. Eric Wish, Department of Psychiatry, Washington University School of Medicine, St. Louis, Missouri.

CALL FOR A
NATIONAL COMMISSION ON ALCOHOLISM
AND OTHER ALCOHOL-RELATED PROBLEMS

One early recommendation of the Liaison Task Panel on Alcohol-Related Problems of the President's Commission on Mental Health is the establishment of a National Commission on Alcoholism and Other Alcohol-Related Problems. Intended to parallel the National Commission on Marijuana and Drug Abuse, this proposed Alcohol Commission would seek the formal involvement of representatives of Congress, from appropriate federal, state, and local governmental agencies, from the sciences, and knowledgeable representatives of public, voluntary and private sectors. This two-year commission would be given the responsibility of studying the many facets and manifestations of the problem, as well as examining and evaluating the current societal response. Reports and recommendations to the President and to the Congress would be the ultimate goal of the Commission's existence.

PRESIDENT'S PANEL URGES
SHIFT IN PREVENTION GOALS

The Liaison Task Panel on Psychoactive Drug Use/Misuse of the Presidents Commission on Mental Health has recommended a shift in drug treatment and prevention efforts from abstinence-oriented objectives to the promotion of responsible decision-making concerning use. Panel Chairperson, Dr. Norman Zinberg of Harvard Medical School's Department of Psychiatry, suggested that it was highly inappropriate to categorize any use of illicit substances as "abuse" simply because they are illegal. That would be tantamount, in his judgment, to "equating light or moderate use of alcohol with the problems associated with alcoholism."

Zinberg added, "furthermore, once the dichotomy between licit and illicit is discarded in favor of the view that all psychoactive drugs, including alcohol and tobacco, act according to the same general principles, psychoactive drug use can be viewed as normative rather than sick or deviant behavior, except when the individual develops consistent patterns of chronic use having dysfunctional consequences."

The Panel recommendation suggests a re-focusing of prevention efforts to promote responsible decisions and behaviors associated with drug-taking. "Psychoactive drug

use is now too widespread to continue educative and preventive efforts that do not attempt to encourage intelligent and informed decision-making regarding the use of psychoactive drugs, with special emphasis on an understanding of those processes which will encourage moderation and restraint in such use."

PRESIDENT'S BUDGET FOR
ALCOHOLISM & DRUG ABUSE

The Carter administration in its fiscal year - 1979 budget requests, seeks an increase in the overall National Institute on Alcohol Abuse & Alcoholism (NIAAA) budget of \$5,671,000 over the fiscal year - 1978 appropriations. The National Institute on Drug Abuse's (NIDA's) 1979 fiscal budget would be boosted by \$13,024,000. In both instances, a major part of the increases are related to the funding of research. NIAAA's research program would be increased by nearly \$5,000,000 in fiscal year-1979. And research support line in NIDA would similarly be increased by more than \$6,000,000. These increases in the research funding for the two substance abuse institutes are a result of recommendations contained in the Mental Health Commission's preliminary report. The actual budget breakdowns for the Carter administration's fiscal year-1979 budget are as follows (in thousands of dollars):

	<u>1978</u>	<u>1979</u>
<u>Alcohol Abuse:</u>		
(a) Research.....	\$ 16,199	\$ 21,197
(b) Training.....	7,200	7,402
(c) Community Programs:		
(1) Project Grants & Contracts.....	78,706	78,706
(2) Grants to States	56,800	56,800
(d) Management and in- formation.....	<u>9,731</u>	<u>10,202</u>
TOTAL Alcohol Abuse.	\$168,636	\$174,307

<u>Drug Abuse:</u>		
(a) Research.....	\$ 34,139	\$ 45,930
(b) Training.....	10,000	10,163
(c) Community Programs:		
(1) Project Grants & Contracts.....	161,000	161,000
(2) Grants to States	40,000	40,000
(d) Management and in- formation.....	<u>17,108</u>	<u>18,178</u>
TOTAL Drug Abuse....	\$262,247	\$275,271

DRUG REGULATION REFORM ACT
OF 1978

The Carter administration has introduced legislation that would reform the manner in which new prescription drugs enter the market. Health, Education & Welfare Secretary, Joseph A. Califano, Jr., has proposed a set of new regulations dealing with the more than 100,000 prescription drugs

(continued Pg. 6)

and 250,000 over-the-counter substances available in the United States today. Outlining a number of problems that currently exist in the manner in which drugs are regulated, Califano pointed to inconsistent and inflexible standards pertaining to drug safety regulation; a long and frequently repetitive review process that a drug must go through before it can be marketed; a closed and selective regulatory process; the often secretive nature of test results concerning scientific safety and effectiveness of new drugs; and the absence of a thoroughly accurate and comprehensive surveillance system for the FDA to use in detecting adverse drug reactions once new substances have appeared on the market.

The proposed legislation would speed the approval process for a new drug, as well as making it easier for the government to force a drug off the market, should it prove to be dangerous. The proposed bill would also foster competition by easing the rules under which companies may market a drug developed by another company. Additional monitoring requirements would be placed on pharmaceutical houses in terms of looking at the side effects of their products. More information and test data on products would become available to the public, with the opportunity for special public interest groups to review test data at the time an application for approval was being processed by the FDA. A new civil penalty of up to \$10,000 per day for failure to comply with the drug laws would also be included in this bill.

COCAINE BRAIN DAMAGE
IN BOLIVIA?

Dr. Nils Noya, Director of the Bolivia National Institute for Investigation of Drug Dependence, is currently conducting research in Bolivia on individuals using cocaine. Brain damage that appears to be irreversible is being found among Bolivians who are addicted to smoking cocaine paste or inhaling the nearly pure form of the drug.

At this point in his research, he has documented some 500 people suffering from brain damage effects, and he estimates that there are at least 3,000 more addicts still undetected in his country.

According to Dr. Noya, even two or three years after these individuals have stopped using cocaine, significant brain damage is demonstrable. Within 6 months of their beginning to smoke cocaine paste or inhaling pure cocaine at least 4 times a week, they have "lost control of their intellectual powers." Dr. Noya describes these individuals as "dead intellectually...their deductive reasoning powers have been abolished. Even a simple mathematical problem upsets them." Dr. Noya added that, "they suffer

from depression, and cocaine paranoid psychoses with hallucinations and delusions. They retain these paranoid ideas and they are very aggressive."

It is Dr. Noya's theory that cocaine acts directly on the cells in the brain, especially the alpha cells. He believes that intracellular glucose is extracted by the cocaine, and that the damage that this causes is irreversible. Dr. Noya emphasized that the strength of cocaine used in Bolivia is quite different from that found in the United States. Cocaine being used in the street in America is generally of 10% purity or less. This contrasts with the nearly pure cocaine being used by individuals being studied by Dr. Noya.

Dr. Noya commented: "If you were to inhale pure cocaine only once or twice a month, in truth it won't hurt you. But we are trying to make people understand that cocaine is a hard drug and extremely difficult to handle."

NATIONAL DRUG ABUSE CONFERENCE

Keynote speeches by Rev. Jesse Jackson and State Senator Julian Bond, Georgia, public policy discussions with top national and international government officials and emphasis on skills workshops will highlight a unique week of programs at the National Drug Abuse Conference to be held here on April 3 - 8, 1978.

"I believe we achieved our goal of developing a program which allows people in the field an opportunity to impact the policies of the future while offering a wide variety of skills workshops that encourages participation and professional development," commented Art Simmons, National Conference Chairperson.

Simmons, who is the Executive Director of the Center for Addiction Services here, recently announced the speakers for the Conference's plenary sessions.

Keynote speakers will be Rev. Jackson, the PUSH Foundation, Chicago; Sen. Bond and Mayor Richard G. Hatcher, Gary, Ind.

Other Conference speakers include: Dr. George Ling, M.D., Director General, United Nations Drug Abuse Council; Jean Nepote, Director, International Criminal Police Organization (INTERPOL); Dr. Peter Bourne, Special Assistant to the President for Health Issues; Dr. Gerald Klerman, Director, Alcohol, Drug Abuse and Mental Health Administration; and, Dr. Peter Bensinger, Administrator, Drug Enforcement Administration.

(Continued, Pg. 7)

Dr. Robert DuPont, Director, National Institute on Drug Abuse, Dr. Ernest Noble, Director, National Institute on Alcohol Abuse & Alcoholism, and Dr. Thomas Bryant, Drug Abuse Council, Inc., will also be speaking.

"During the course of the Conference, participants will be developing policy platform statements with these officials which will shape the future of drug and alcohol abuse treatment, education and research," Simmons said.

Over 4,000 people from around the world from all aspects of the drug and alcohol abuse, social service, criminal justice, medical, psychological, psychiatric, education and pharmaceutical fields are expected to attend the Conference's programs, which have been designed to allow practical skills development.

There is an \$85 registration fee for the Conference. After March 15, registration will only be conducted at the Conference Headquarters, the Olympic Hotel.

Simmons said that, as was the case in past National Drug Abuse Conferences, accreditation will be offered.

For further information, contact NDAC '78, 200 Broadway, Seattle, Washington 98122, or call: (206) 623-2466.

UW TO OFFER
INDUSTRIAL ALCOHOLISM COURSE

A ten-week Continuing Education course dealing with industrial alcoholism will begin at the University of Washington on Tuesday, April 25, 1978. Meeting once weekly from 8:00 to 10:00 a.m., this course will be taught by Mr. Gordon Hampton, Rehabilitation Counselor with Pacific Northwest Bell. Mr. Hampton is widely regarded in the Puget Sound area as a specialist with considerable skill and expertise concerning this type of program. The course title is: "ALCOHOLISM ON THE JOB: A PROGRAM FOR SUCCESSFUL INTERVENTION".

This short course will provide appropriate beginning knowledge and skills for those individuals concerned with establishing and maintaining effective industrial alcoholism programs. Considerable research evidence has suggested that an early identification and intervention effort in the workplace results in a much higher rate of successful resolution to alcohol abuse problems than waiting until an individual has essentially lost a job and progressed much further along in the alcohol abuse continuum. The National Institute on Alcohol Abuse and Alcoholism is increasingly giving priority to the use of the workplace as an appropriate setting for alcoholism prevention activities. In offering this short course, the Alcoholism & Drug Abuse Institute hopes to meet some of the educational needs in the greater Seattle area for upgraded information and skills concerning the appropriate means of establishing industrial alcoholism programs.

For further information, contact the University of Washington Office of Short Courses and Conferences (543-9233). Also, on the final page of *NEPENTHE* is a registration form for this short course.

HEW WARNS OF
CONTAMINATED MARIJUANA

Since 1975, the Mexican government has been engaged in a crop eradication program dealing with marijuana. The drug, paraquat, is being sprayed on marijuana fields in Mexico in this program. The drug, once sprayed, results in the disintegration of the plant over a two to three day period when the plant has been exposed to sunlight. A problem arises, however, when marijuana is cultivated right after spraying. In this instance, the marijuana is formed into bricks and stored out of sunlight with the eventual likelihood that the purchasers of marijuana in the United States will be smoking the contaminated product.

On Monday, March 13, 1978, the National Organization for the Reform of Marijuana Laws filed a suit in U.S. District Court seeking an injunction against further United States support or assistance to the herbicide spraying program in Mexico. This injunction seeks a cessation of the program until all of the environmental and health-related consequences of the spraying have been properly analyzed in an environmental impact statement, as required under the National Environmental Policy Act of 1969.

The Department of Health, Education, and Welfare has recently issued a set of questions and answers concerning marijuana and paraquat.

- Q If marijuana treated with paraquat is eaten in brownies, for example, will it be fatal and how much will it take?
- A Since the amount of marijuana which has to be eaten for a lethal dose is between one and ten lbs., it is unlikely that anyone could possibly ingest a lethal dose in food. If, for instance, one ounce of marijuana were used to prepare two lbs. of brownies, 32 to 320 lbs. would have to be eaten within a short period of time to cause death.
- Q What are the effects of smoking paraquat-treated marijuana?
- A At the present time, little is known about smoke toxicity. Studies conducted by ICI (the manufacturers of paraquat) have shown that no paraquat is detectible in the smoke collected from burning paraquat-treated field crops. The National Institute on Drug Abuse is at present conducting studies of smoke collected from burning marijuana treated with paraquat. The question remains to be answered whether the paraquat is being converted, by the heat of burning, into other toxic substances. NIDA hopes to have preliminary study results in January.

(continued, Pg. 8)

Q How can street-marijuana that has come from paraquat-treated fields be recognized?

A When paraquat is applied to plants, they quickly turn yellow and dry out. Sometimes spots similar to burn holes are noticeable on the leaves. This process only takes one to three days, so the marijuana must be harvested soon after spraying and before the plants become so dry as to be unmanageable. Material coming into the country in large lots, therefore, appears damp, yellowish and sickly-looking. Recognizing paraquat-treated marijuana in street samples is more difficult, since by this time the material may have been manicured considerably and possibly mixed with untreated materials. No characteristic smell is associated with paraquat, so this is not a means of detection.

Q What symptoms might be noticed after smoking or eating marijuana containing paraquat?

A No information is at present available concerning human symptoms to be expected after smoking paraquat. Symptoms to be expected after oral ingestion would probably only be manifested if the pure herbicide were swallowed.

Q Why was paraquat originally chosen as the herbicide of choice to be used to eradicate marijuana fields?

A Studies conducted in the early 1970's demonstrated that paraquat was highly effective in quickly killing marijuana plants and presented a minimum of environmental consequences.

In a recent article in Science (Feb. 24, 1978), it was reported that the Mexican government estimates 9,500 acres of marijuana were destroyed by airborne spraying in 1977. It is believed that 2,500 tons of marijuana come into the United States each year from Mexico. Two separate investigations looking at marijuana seized at the Mexican border have found between 10% and 20% of the samples analyzed to contain paraquat. NORML has advised marijuana consumers to immediately avoid the use of marijuana coming in from Mexico. Furthermore, marijuana samples can be sent for analysis to PharmChem Research Foundation, 1844 Bay Rd., Palo Alto, CA 94303. The telephone No. is (415) 322-9941. Individuals sending samples to PharmChem Research Foundation should send a 1/2 gm. sample wrapped in a plastic bag. \$5.00 must be included to cover the cost of testing. The individual

sending the marijuana sample should make up any five-digit number and include it in the envelope. One week later, the individual can call PharmChem and identify the sample by using the five-digit number. The results will be provided, and the consumer will retain anonymity.

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NOTE: SHORT COURSES REGISTRATION FORM
FOLLOWS ON PAGE 9.

SHORT COURSES REGISTRATION FORM:

COMPLETE AND RETURN WITH APPROPRIATE FEES TO:

SHORT COURSES REGISTRATION
UNIVERSITY OF WASHINGTON
DW-50
SEATTLE, WASHINGTON 98195

Cut out and Return

NAME _____ DAYTIME TEL. _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____

AFFILIATION _____

POSITION _____

ALCOHOLISM ON THE JOB: A PROGRAM
FOR SUCCESSFUL INTERVENTION
(4/25/78-6/26/78)
Fee: \$75.00.....\$ _____
Optional Extension Credit for above
Fee: \$10.00.....\$ _____

ADOLESCENTS, ALCOHOL & DRUGS
(4/12/78-4/13/78)
Fee: \$30.00.....\$ _____

TOTAL FEES \$ _____

_____ My check in the amount of total fees is enclosed (Make check payable to the UNIVERSITY OF WASHINGTON).

_____ Enclosed is a letter from my employer with billing instructions for the total amount of fees.