

from television coverage, 32% from friends or "on the street," and 13% from newspapers. Over three-fourths of the subjects reported hearing about the overdoses from multiple sources, e.g., both television and newspaper. We will present interclinic differences, correlates of learning early versus late about the danger, and will discuss the drug users' reaction to the information, which ranged from seeking drug treatment to seeking to buy the potent heroin that was so dangerous. The presentation will include showing some coverage by the television station from which the greatest number of subjects learned of the overdoses. Although some research has indicated that heroin addicts seldom watch television, the media has an important role in alerting the drug users to such public health emergencies.

PORTRAYAL OF DRUG AND ALCOHOL USE IN SPANISH-LANGUAGE FILMS. Christopher D. Tori. California School of Professional Psychology, Berkeley/Alameda, CA.

Hispanics, particularly from Mexico, represent the fastest growing minority population in the United States. In many Southwestern regions (e.g., California and Texas) Spanish is as commonly spoken as is English. Thus, a cross-cultural perspective of the portrayal of alcohol and drugs in the mass media can help in understanding the full impact of the media on substance abuse problems in our country. Epidemiological studies have consistently found that heavy drinking is much more common among Hispanic men than the general male population. Hispanic women, on the other hand, reportedly have higher rates of abstinence than white women. Frequently cited factors to account for excessive alcohol use among Hispanic males have included a distorted perception of *machismo* behaviors and a widespread attitude among Hispanics that problem drinking for men is not a psychiatric disorder but merely irresponsible behavior. The present study predicted that these societal factors would be depicted and reinforced in motion pictures made in Mexico and shown throughout the United States. Over a one-year period, the thematic contents of 101 Mexican films presented at a Spanish speaking theater were analyzed using the motivational constructs of Henry A. Murray. The incidence and situations involving alcohol or drugs used were also quantified along with subsequent violent resolutions of conflicts. As expected, heavy alcohol use was highly associated with masculine sexual potency and toughness. Women, on the other hand, were usually abstinent but tolerant of male drunkenness. Alcohol use was frequently used as the first response to emotional distress. Drug use, however, was negatively portrayed and associated with international crime and sexual deviance. The potential for the conditioning of maladaptive acceptance of alcoholism among Hispanic men is discussed.

POLICY ISSUES IN GOVERNMENT-MEDIA-COMMUNITY PARTNERSHIPS FOR DRUG ABUSE PREVENTION. Thomas E. Backer. Human Interaction Research Institute.

Recent research in the United States and internationally reveals large differences in the efficacy of various drug abuse prevention campaigns involving use of television and other mass media. Some of the most successful campaigns are organized around partnerships between Federal government agencies, mass media organizations such as television networks, and nonprofit community-based groups. Public policy supporting these partnership-based campaigns has yet to evolve, and their structure is often informal and undocumented. Also, there is infrequent communication and little comparative analysis among campaigns both within the drug abuse area, and between drug abuse and other

health behavior fields. These factors make scientific evaluation and enhancement of future media-based prevention campaigns more difficult. Several recent drug abuse prevention campaigns involving government-media-community partnerships will be analyzed to show how such partnerships evolve, and what critical elements lead to success. Results will be presented from an ongoing research study supported by the Office of Substance Abuse Prevention, which involves a comparative synthesis of "what works and what doesn't" for mass media health behavior campaigns in a number of topical areas (AIDS, drug abuse, smoking cessation, heart disease prevention, etc.). The current phase of the research is examining the role of organizations in these campaigns, using organizational change concepts as the mechanism of analysis. The presentation will conclude with suggestions for shaping public policy about drug abuse prevention campaign design, improving mechanisms for sharing drug abuse research findings through the media, and promoting cross-campaign communication and evaluation research to enhance future campaigns.

PAPER SESSION

Stimulant Effects and Arousal

Chair: *David Penetar*, Walter Reed Army Institute of Research, Washington, DC

PHARMACOLOGICAL SEPARATION OF REM SLEEP ATONIA FROM CATAPLECTIC ATONIA. J. Gila Lindsley. Sleep-Wake Disorders Center, Hampstead Hospital, Hampstead, NH.

It has long been assumed that the atonia of REM sleep and the atonia of narcolepsy share a common pharmacological substrate, with central muscarinic receptors clearly identified as critical to REM sleep. By extension, this should also be true for cataplexy. The data presented are inconsistent with this assumption. The effect on cataplexy and REM sleep in daytime naps, for a narcoleptic subject, of a nonspecific and an M₁-specific antimuscarinic agent are detailed. Data are interpreted as demonstrating the atonia of narcoleptic cataplexy to be pharmacologically dissociable from the atonia of REM sleep.

METHYLPHENIDATE AND PEMOLINE: EFFECTS ON SLEEPINESS AND MOOD DURING SLEEP DEPRIVATION. Larry Matteson, Tamsin Kelly, Harvey Babkoff and Paul Naitoh. Naval Health Research Center, San Diego, CA.

Thirty-six male subjects (mean age = 20.94) participated in a study to test the effects of methylphenidate (10 mg every 6 hours; 8 doses) or pemoline (37.5 mg every 12 hours; 4 doses) in maintaining performance during 64 hours sleep deprivation. Subjective sleepiness was measured by a Visual Analog Scale (VAS), objective sleepiness by the number of lapses (intertap times longer than 3 sec) on a 10-min tapping task, and mood by Profile of Mood States (POMS). Results indicate that 37.5 mg of pemoline administered every 12 hours significantly reduces both subjective and objective measures of sleepiness in sleep-deprived subjects, primarily during the circadian troughs, but has little effect on self-ratings of mood; while 10 mg of methylphenidate administered every six hours has no significant effect on these measures.

CAFFEINE AND TIME-OF-DAY EFFECTS ON A FORCE TASK. L. Stephen Miller, Suzanne Hasseltine, Elizabeth A. Jenkins, Charles P. Stroble, James D. Griffin, Thomas W. Lombardo and Stephen C. Fowler. University of Mississippi, University, MS.

Although numerous studies have demonstrated reliable relationships between various human performance measures and time-of-day, disagreement continues concerning the shape of these relationships and their dependence on task variables. Most perceptual-motor tasks used have emphasized responses to exteroceptive stimuli. We report on the use of a multiple forceband discrimination task (MFDI) that requires the human operator to use both exteroceptive and proprioceptive information. Results indicate that correct task responses were associated with longer response latencies. Caffeine increased morning latencies and correct responses and reduced afternoon latencies and correct responses. The association between response latency and correct responses may be mediated by attention effects of time-of-day and caffeine. Our results also replicate the unique MFDI time-of-day effects we found in a previous study.

NICOTINE'S EFFECT ON AROUSAL IN SMOKERS IS DEPENDENT ON BASELINE LEVEL OF AROUSAL. Kenneth A. Perkins, Leonard H. Epstein, Richard L. Stiller, Joan E. Sexton and Rena Solberg. University of Pittsburgh, PA.

In order to better explain the commonly reported opposite effects of nicotine on subjective vs. cardiovascular arousal ("nicotine paradox"), 10 male smokers were divided into High and Low Baseline (BL) subgroups based on median split of BL self-reported subjective state and on BL cardiovascular measures (heart rate, blood pressure). Subjective measures included a 14-item Arousal scale, "Positive" visual analog scale (VAS) items such as "Relaxed," and "Negative" VAS items such as "Jittery." In 2 counter-balanced sessions, nicotine (15 µg/kg) or placebo was presented via measured dose nasal spray every 20 min for 2 hr and measures taken after each of the six presentations. Results confirmed that magnitude (and in some cases direction) of nicotine's subjective effects were dependent on BL level. Increase in systolic blood pressure was also dependent on BL level, but not diastolic blood pressure or heart rate. No changes were seen following placebo, arguing against a nonspecific explanation for results (e.g., regression to the mean). These results are discussed in light of the phenomenon of rate-dependent drug effects.

PAPER SESSION

Psychological and Psychiatric Issues in Psychopharmacology
Chair: John R. Hughes, University of Vermont, Burlington, VT

BEHAVIOR THERAPY TREATMENT OF HOSPITALIZED POLYDIPSIC SCHIZOPHRENIC PATIENTS. Mary E. DeFerriere. Children's Psychiatric Unit, Austin State Hospital, Austin, TX; Deborah Stanley. University of Austin, TX.

Psychogenic polydipsia is defined as the drinking of large volumes of fluids for no apparent reason. It occurs almost exclusively in psychiatric patients who lose their ability to excrete water adequately, resulting in fluid retention with various symptoms and complications. This symposium will discuss both the symptoms of polydipsia and problems in differential diagnosis. Both the pharmacological and psychological management of polydipsia among chronically hospitalized schizophrenic patients within the Adaptive Daily Living Skills Unit of the Austin State Hospital will be reviewed. Research findings of a ten-month study on the effects of a specific behavioral therapy program for problematic behaviors, specifically for this presentation fluid intoxication, will be discussed.

INCIDENCE OF PSYCHIATRIC DISORDERS AMONG INDIVIDUALS TREATED FOR CHEMICAL DEPENDENCY. Mary Heilbronn.

Thirty-five volunteers with a recent history of chemical dependency were studied at the termination of a residential treatment program to determine incidence of psychiatric disorders, current and lifetime, among both subjects and their families. The Diagnostic Interview Schedule revealed that 89% of the subjects met criteria for one or more psychiatric disorders. The most heavily loaded diagnoses were Generalized Anxiety Disorder and Antisocial Personality Disorder. Seventy-nine percent of the subjects had a positive first-degree family history of chemical dependency and/or mental illness. Findings suggest the need to provide enhanced awareness of comorbidity and to develop dual diagnosis treatment modalities.

IMPULSIVITY AND SUBSTANCE ABUSERS: STATE VERSUS TRAIT? J. M. Jensen, H. M. Pettinati, K. Meyers and V. N. Valliere. Carrier Foundation, Belle Mead, NJ.

Impulsivity is a well-documented characteristic of substance abusers (Lacey and Evans, 1986). Inpatients (n = 104) in treatment for cocaine and/or alcohol use disorders were assessed using self-control questions and the *Structured Clinical Interview for DSM-III-R Personality Disorders (SCID II)*. The aim was to determine whether these patients were more impulsive than controls, and if impulsivity is an enduring personality trait, or a temporary impulsive state. Addictions counselors served as controls. Data points were baseline and 1, 3 and 12 months after discharge. Significantly more patients were impulsive at baseline ($p=0.01$) as compared to controls. Significantly fewer patients were impulsive 1 month after discharge ($p=0.01$). Borderline personality disorder diagnoses were significantly related to high impulsivity scores ($p=0.01$). Differences in impulsivity as a state versus trait have important treatment and prognosis implications in all stages of recovery.

PSYCHOLOGICAL SYMPTOMS AND NEEDLE SHARING AMONG METHADONE PATIENTS. David S. Metzger, George E. Woody, Dominick DePhillips, Patrick Druley and Helen Naveline. University of Pennsylvania, Philadelphia, Veterans Administration Medical Center, Philadelphia, PA.

Despite widespread knowledge of the methods of HIV transmission, needle sharing among intravenous drug users (IVDU) remains a significant problem. Three hundred seventy-nine methadone patients were surveyed regarding their recent needle-sharing behavior. A wide range of patient characteristics was used to identify those patient factors associated with needle sharing. Overall, our data identified characteristics associated with recent needle sharing which may be important considerations in understanding continued high-risk behavior. These characteristics included more arrests and legal difficulties, more severe drug problems, and higher levels of psychiatric symptomatology. When considered together these features describe a group which may require more aggressive interventions than have thus far been implemented.

PAPER SESSION

Psychopharmacology of Stimulants and Their Antagonists
Chair: Alison H. Oliveto, University of Vermont, Burlington, VT