

Beckwith and Thomas V. Petros. University of North Dakota, Grand Forks, ND.

This study examined gender differences in the effects of acute ethanol intoxication and prose processing. Subjects were administered ethanol (0.0 or 1.0 ml/kg body weight) and read expository prose passages. Intoxicated subjects encoded prose slower and recalled less information than sober subjects. Males spent more time encoding text than females: females taking oral contraceptives (OC's) read longer than females not taking OC's. Intoxicated males recalled more than intoxicated females, although no difference was observed when sober. This suggests that ethanol impairs prose processing efficiency even when subjects encoded the material at their own rate. Possible explanations for the gender differences included neuroendocrine and cognitive factors.

EFFECTS OF DOSE ON THE REINFORCING EFFECTS OF CAFFEINE. William Hunt. Claremont McKenna College, Claremont, CA; John R. Hughes, Warren K. Bickel, Stephen T. Higgins and Sara L. Pepper. University of Vermont, Burlington, VT.

Thirteen moderate coffee drinkers (3–7 cups per day) were tested to see if caffeine at 25, 50, 100, 150, 200 mg could function as a reinforcer when ingested in coffee by them. Caffeine at 100 mg functioned as a reinforcer in 7 of the subjects. Among the subjects who received additional dose tests of caffeine, in 2 subjects 25 mg of caffeine functioned as a reinforcer, in 5 subjects 50 mg functioned as a reinforcer and in 3 subjects 150 mg functioned as a reinforcer. The two hundred mg dose did not function as a reinforcer in any subjects. These results replicate earlier findings with the 100 mg dose, and are the first to show that low doses, 25 and 50 mg can serve as reinforcers.

PARENTAL INTOXICATION AND USE OF PHYSICAL CONTACT WITH PROBLEM CHILDREN. Alan R. Lang and William R. Meadows. Florida State University, Tallahassee, FL; William E. Pelham. Western Psychiatric Institute and Clinic, Pittsburgh, PA.

Effects of alcohol intoxication on physical contact in management of boys exhibiting behavior problems were examined using 96 parents, including equal numbers of married fathers and married and single mothers who themselves had either only normal children or at least one child with a diagnosis of an externalizing disorder. Half the subjects from each group received an alcoholic beverage (0.95 ml ETOH/kg for males or 0.84 ml/kg for females) and half a nonalcoholic drink prior to a semi-structured interaction with a child confederate trained to portray externalizing behavior problems. Coding of videotaped interactions by raters blind to subject beverage condition revealed that intoxicated subjects used significantly more physical contact and control than did sober subjects.

SOBER HOUSING FOR RECOVERING SUBSTANCE ABUSERS. Dennis McCarthy. Department of Public Health, Boston, MA; Milton Argeriou. Stabilization Services Project, Boston, MA; Joseph Valley. Department of Public Health, Boston, MA.

Alcohol- and drug-free housing is critical to the maintenance of sobriety for many recovering substance abusers. The decreased availability of low cost housing over the past decade has created a

particular hardship for individuals in recovery seeking such housing. The Massachusetts Department of Public Health in collaboration with other state and private agencies has successfully employed a variety of strategies to develop alcohol- and drug-free housing. Three strategies are reviewed and discussed.

EFFECTS OF PRENATAL AND ADULT CAFFEINE EXPOSURE ON MAZE LEARNING. Charles E. Camp and W. Keith Douglass. Armstrong State College, Savannah, GA.

The effects of prenatal and/or adult caffeine exposure on maze learning were studied in 20 Holtzman albino rats. Compared to controls, subjects that received prenatal caffeine showed increased maze times and errors during maze training with decreased times and errors during adult exposure. Prenatal subjects had lower mean body weights. During postexposure, subjects that received prenatal and adult exposure had increased times and errors over all groups. Male and female subjects that received caffeine only as adults had faster times and fewer errors during adult exposure with increased times and errors during postexposure in comparison to controls.

CHANGES IN ENERGY EXPENDITURE FOLLOWING SMOKING CESSATION: SEX DIFFERENCES. Susan E. Winters, Mathilda C. Coday, Robert C. Klesges and T. Andrew Bailey. Memphis State University, Memphis, TN.

The present study measured the effect of smoking on resting energy expenditure (REE) in 30 (15 male, 15 female) smokers over two consecutive days. On day one, REE was measured for 20 minutes after a day of regular smoking. In addition, 30 (15 male, 15 female) nonsmokers who served as controls were run under identical conditions. Preliminary analyses performed on these data suggest that there are definite metabolic effects associated with smoking and smoking cessation and that these effects are greater in females compared to males.

METHADONE-TREATED DRUG ABUSERS: REDUCED HIV INFECTION AND RISK BEHAVIOR. George E. Bigelow, Robert K. Brooner and Lawrence Greenfield. The Johns Hopkins University School of Medicine, Baltimore, MD.

The prevalence of human immunodeficiency virus (HIV) infection and the rates and patterns of drug use-related HIV risk behaviors were compared in two populations of intravenous drug users (IVDUs)—one enrolled in methadone maintenance treatment (N=100), and one untreated and continuing drug use in the community (N=90). Volunteers' blood samples were tested for HIV antibodies as an index of infection, and quantitative histories of their drug injection and needle sharing behaviors for each month of the preceding year were obtained by interview. HIV seropositivity was significantly less prevalent in the methadone-treated population (3% vs. 17%, $p=0.003$). For each of the preceding 12 months the percentage of persons injecting drugs and the median number of injections per month were both significantly lower in the methadone-treated group than in the untreated group ($p<0.01$ in all cases). The median injections per month in the treated group was one-twelfth to one-fourth that of the untreated group. While these data are suggestive of a benefit from treatment such a conclusion would be speculative since the treated and untreated IVDU groups were self-selected and differed on demographic indices (minority group membership) that were themselves posi-

tively correlated with HIV seropositivity. (Supported by DA 00050, DA 07209, and DA 05127.)

MODELING VERSUS SOCIAL FACILITATION EFFECTS ON WOMEN'S ALCOHOL CONSUMPTION. Bertrand D. Berger and Vincent J. Adesso. University of Wisconsin-Milwaukee, Milwaukee, WI.

The influence of the processes of modeling and social facilitation on women's drinking has been investigated little. Sixty female college students were assigned to a control, co-action, audience facilitation, typical modeling or to a modeling condition where attention was guaranteed. Subjects in the latter condition drank as much, took more sips, and had higher blood alcohol levels (BAL) than in the co-action condition. Additionally, subjects consumed more, took more sips, and had higher BALs when drinking alone than in the presence of another. It is suggested that modeling and societal values are mechanisms underlying drinking behavior in women.

NICOTINE EFFECTS ON HUMAN AVOIDANCE RESPONDING WITH UNAVOIDABLE POINT LOSS. R. H. Bennett, D. R. Cherek and R. Spiga. University of Texas Health Science Center, Houston, TX.

Male smokers were administered air or tobacco smoke of varying nicotine content (0.3, 1.2, and 2.7 mg nicotine yield) via the spirometric method. Prior to and following each administration subjects responded on a free-operant avoidance schedule in which the point loss-point loss interval was 5 seconds and the response-point loss interval was 20 seconds. Unavoidable point loss was superimposed on this schedule. Nicotine produced slight increases in overall response rates. Relatively larger increases were observed in local response rates immediately following unavoidable point losses. These increases were a function of nicotine condition.

HUMAN AVOIDANCE RESPONDING: EFFECTS OF TOBACCO ABSTINENCE. R. H. Bennett, D. R. Cherek and R. Spiga. University of Texas Health Science Center, Houston, TX.

Male, nicotine-dependent, tobacco smokers responded on a free-operant avoidance schedule with added unavoidable point loss. Responding during ad lib smoking conditions (baseline) was compared to responding during three tobacco abstinence conditions. The three conditions were nicotine gum, placebo gum, and no gum. In the nicotine and placebo gum conditions subjects were given 2 mg pieces of gum 30 minutes prior to each session. Absence of nicotine (placebo and no gum conditions) produced increases in overall response rates compared to nicotine gum and ad lib smoking conditions. Placebo gum and no gum conditions also produced the greatest local response rate increases following unavoidable point losses.

CONTROLLED MARIJUANA SMOKING: THE EFFECTS OF PUFF NUMBER. Julian L. Azorlosa and Maxine L. Stitzer. The Johns Hopkins University School of Medicine, Baltimore, MD.

Previous studies have suggested that people alter the way they smoke a marijuana cigarette depending on the potency of the cigarette. The purpose of this study was to establish marijuana dose-effect curves using precise methods of control over smoking

and inhalation behaviors. In six sessions, subjects smoked either 4, 10 or 25 puffs of a low (1.75% THC) or high (3.55% THC) potency marijuana. THC levels rose during smoking, peaked immediately after the last puff, and rapidly declined during the postsmoking period. There were orderly dose effects (puff and potency) for THC, heart rate increase and subjective reports of intoxication. Only the 25 puff high potency condition produced significant impairment on psychomotor performance. The study showed that marijuana smoking could be successfully controlled to ensure precise dosing and that behavioral and subjective effects are closely related to plasma THC levels.

EFFECTS OF NICOTINE ON ACOUSTIC STARTLE IN RATS. Jane B. Arci. Uniformed Services University of the Health Sciences, Bethesda, MD; David E. Morse. Armed Forces Radiobiology, Bethesda, MD; Neil E. Grunberg. Uniformed Services University of the Health Sciences, Bethesda, MD.

The acoustic startle response was used to measure changes in sensorimotor reactivity in response to nicotine administration and cessation. Reflex amplitude in rats receiving 6 or 12 mg/kg nicotine was compared to animals receiving saline on days 1 and 7 of drug administration and on days 1, 2, 3, 5 and 7 of drug cessation. Nicotine produced a dose-response effect of increased amplitude during cessation. The paradigm may provide a useful animal model for quantification of various treatments of nicotine withdrawal effects.

ALCOHOL AND EXPECTANCY EFFECTS ON WOMEN'S PHYSIOLOGICAL AND MOOD REPORTS. Vincent J. Adesso, Wendy J. Freitag and Merci A. Strobbe. University of Wisconsin-Milwaukee, Milwaukee, WI.

The present study investigates the effects of alcohol and expectancies on subjective bodily sensation, blood pressure, and self-reported moods in women. Measures were taken at baseline, peak intoxication, and during detoxification for 114 college student volunteers, who were heavy drinkers of alcohol. Alcohol subjects received enough alcohol to raise their blood alcohol level to 0.07 mg%. Preliminary results indicated that alcohol influenced women's self-reported bodily sensations and mood states, while alcohol expectancies contributed only to the reports of subjective bodily sensations. Changes in bodily sensations, mood states, and blood pressure seemed to vary as a function of time across the blood-alcohol curve.

TRENDS IN THE SCIENTIFIC LITERATURE ON COCAINE: 1966-1989. Alan J. Budney, Dawn Delaney and Stephen T. Higgins. University of Vermont, Burlington, VT.

The current cocaine epidemic has greatly increased the recognition and significance of cocaine use as a legitimate health-care problem. The scientific community has responded to the growth of the cocaine problem as evidenced by a rapid accumulation of scientific literature addressing health-care issues. For example, a MEDLINE search reveals that 1989 cocaine citations in the abuse/dependence area (n=335) increased 25.8- and 14.6-fold from 1969 and 1979, respectively, while reviews (n=64) increased 16- and 32-fold. The purpose of this paper is to describe the trends in the cocaine literature so that clinicians and researchers may become more aware of and have easier access to the information that is currently available. Areas in which a dearth of information exists will also be highlighted.