

This study examines the relationship between drug of choice, personality, psychopathology and early termination from treatment in substance abusing clients. One hundred subjects were given the MCMI and the SCL-90R after a standard clinical intake interview in which demographic and drug use information was obtained. Results revealed generally high levels of psychopathology. There were few differences among the four types of substance abusers (marijuana, opiate, cocaine and amphetamine), namely, marijuana users were significantly younger while amphetamine abusers manifested high scores on the interpersonal sensitivity, hostility, paranoia and psychoticism of the SCL-90. The amphetamine abusers with high levels of subjective distress were the clients least likely to return after the intake interview. Mandated clients, even with high scores on the MCMI's Antisocial Scale, were the most likely to return as were clients who scored high on the MCMI's psychotic thinking and paranoid scale. The results of this study support thorough, individualized assessment of substance abusers as part of the employment of individually tailored treatment plans.

A PSYCHO-SOCIAL VIEW OF "CRACK" IN NEW YORK CITY Blanch Frank, Alan Kott, Gregory Rainone and Michael Maranda NY State Division of Substance Abuse Services, New York

Crack, a smokable form of cocaine, has had a rapid rise in popularity in New York City over the past year. Given the intense effects of the drug and this mode of administration, a three-part study was undertaken to assess the impact of the Crack phenomenon. First, this paper describes general findings about Crack use and its consequences from a survey of New York City residents. Second, an ethnographic study of active Crack users in major coping areas and in "base" and Crack houses is discussed. Finally, the results of a study of Crack users in treatment are presented with recommendations for treatment.

CRACK ABUSE AND SUICIDE IS THERE A CORRELATION? George DeLeon and Nancy Jauchill Phoenix House Foundation, New York

The dramatic shift in drug preference to cocaine and crack use in recent years has important implications for diagnosis and treatment. This study reports preliminary findings on the prevalence of suicide attempts among substance abusers admitted to long term residential therapeutic community treatment. Comparisons across primary drug groups reveal that crack abusers have a significantly higher rate of suicide attempts. These findings stress the need to identify psychological and psychopharmacological factors in cocaine associated behavioral problems.

EFFECTS OF INHALED NICOTINE VAPOR FROM SMOKELESS CIGARETTES R. Nemeth-Coslett and Jack E. Henningfield Addiction Research Center, Baltimore, MD, and Samantha McBride Johns Hopkins University

Multiple physiologic measures and subject ratings were

collected from seven volunteer cigarette smokers during 4 hour test sessions to assess the effects of smokeless cigarettes (SLC). Subjects inhaled nicotine vapor through the mouth piece of a manifold that simultaneously held 4 SLCs. The dose conditions were either 0, 1, 2, or 4 standard SLCs mounted in the manifold. Depending on the nicotine dose condition, either 4, 3, 2 or 0 denicotinized SLCs, respectively, were also mounted in the manifold. Subjects were instructed to inhale according to standard procedures. The main finding was that subjects reliably differentiated placebo from all active doses. Ratings of the similarity of the SLC to tobacco cigarettes, as well as positive and negative effects, were also dose related. Desire to smoke was significantly decreased after inhaling from the SLC but recovered to baseline within 30 min. Changes in blood pressures were not significantly affected, however, changes in heart rate were significantly increased in a dose-related manner.

COGNITIVE, SUBJECTIVE AND PHYSIOLOGIC EFFECTS OF NICOTINE IN NONSMOKERS Frederick R. Snyder, R. Nemeth-Coslett, Laurence P. Shanet and Jack Henningfield NIDA/Addiction Research Center

Sixteen healthy nonsmokers, 9 males and 7 females, were each administered 3 doses of nicotine gum—0, 2, and 4 mg—in an ascending order. Subjective, physiologic and cognitive measures were obtained prior to and after each dose administration. Although no statistically significant effects were observed on the obtained measures of information processing, the group data showed a trend toward increasing response times (impairment) with increasing doses of nicotine. All physiologic parameters—systolic and diastolic blood pressure, heart rate and skin temperature—showed a significant response to 4 mg nicotine gum, and systolic blood pressure and skin temperature were significantly affected by the 2 mg dose as well. Nonsmokers detected the active doses of nicotine as compared to placebo, drug liking scores were not affected. Interestingly, MBG scale scores (a measure of euphoria) showed a significant increase in the 4 mg condition which contrasts to results with smokers who typically show no change on this measure under similar conditions. Results are discussed with regard to individual differences, tolerance, and possible factors relevant to the effects of nicotine on aspects of information processing.

PAPER SESSION

Methylphenidate in Children

Saturday August 29, 1987 • 1:00 p.m. - 1:50 p.m.

Marriott Marquis Hotel • Majestic Room

Chair: Mark D. Rapport, Department of Psychiatry and Behavioral Science, State University of New York at Stony Brook

DOSE-RESPONSE EFFECTS OF METHYLPHENIDATE ON IMPULSIVITY IN CHILDREN WITH ADDH Mark D. Rapport State University of New York at Stony Brook, Gary Stoner University of Massachusetts

The present investigation examined the effects of methylphenidate (MPH) on impulsivity in children with Attention Deficit Disorder/Hyperactivity (ADDH) in school and on their Matching Familiar Figures test (MFFT) performance in

a clinic setting Twenty-two children with ADDH between 6 and 10 years of age participated in a double-blind, placebo-control within-subject (crossover) design in which each child received four doses of MPH (5, 10, 15, 20 mg) and a placebo in a randomly assigned, counterbalanced sequence A series of one-way ANOVA's with repeated measures showed significant overall medication effects on MFFT performance, teacher ratings of self-control, attentive behavior, and academic efficiency Trend analyses revealed a significant linear relationship between improvement in the clinic and classroom measures and increasing dose

THE EFFECTS OF METHYLPHENIDATE ON LEARNING IN CHILDREN WITH ADDH Stuart A Vyse Connecticut College, Mark D Rapport State University of New York at Stony Brook

The present study evaluated the utility of a clinic-based learning measure (the stimulus equivalence paradigm) and classroom observations in detecting dose-related behavioral changes in children with Attention Deficit Disorder with Hyperactivity (ADDH) Twenty-six ADDH children participated in a double-blind, placebo-control, within-subject (crossover) design in which each child received four doses of MPH in a randomly assigned sequence A series of one-way analyses of covariance found significant medication effects on several classroom and clinic-based measures In addition, the stimulus equivalence paradigm revealed dose-related improvements in both specifically instructed material and incidental learning

ATTENTION DEFICIT DISORDER AND METHYLPHENIDATE RATE-DEPENDENT EFFECTS ON OPERANT BEHAVIOR George J DuPaul University of Rhode Island, and Mark Rapport Department of Psychiatry & Behavioral Science, State University of New York at Stony Brook

The two most common treatments for Attention Deficit Disorder with Hyperactivity (ADDH) are psychostimulant medication and behavior therapy The present study examined the effects of several doses (i.e., 5 mg, 10 mg, 15 mg and 20 mg) of methylphenidate on the operant key-pressing behavior of 20 ADDH children Each child was randomly assigned to one of two groups wherein equivalent instructions but different multiple conjunctive schedules were employed Methylphenidate effects on behavior maintained by complex reinforcement schedules were dependent upon the reinforcement schedule employed (i.e., the response rate it controls under control conditions) These results have implications for the nature of rate-dependent phenomena in humans and the treatment of ADDH children

DISTINGUISHED FOREIGN AFFILIATE

Friday August 28, 1987 • 3 00 p m -3 50 p m
Marriott Marquis Hotel • Boothe/Edison Room
 Chair *Hugh L Evans*, Institute of Environmental Medicine, New York University Medical Center

BENZODIAZEPINE-INDUCED INGESTION PHARMACOLOGICAL AND BEHAVIORAL ATTRIBUTES Steven J Cooper Department of Psychology, University of Birmingham, Birmingham, B15 2TT, United Kingdom

Classical benzodiazepines (BZs) have been succeeded by a variety of partial agonists which act at central BZ receptors, which retain anxiolytic activity but which lack behaviorally-depressant side effects While the original full agonists are consistent in their enhancement of food consumption, the newer partial agonists differ Thus, BZs like Ro17-1812 have a strong hyperphagic effect, the β -carboline ZK 91296 appears to have a weaker effect, and the pyrazoloquinoline CGS 9896 is without effect Behaviorally, BZs enhance consumption of palatable diets, and we have some evidence that BZs increase sham feeding in the gastric-fistulated rat These data may link with recent reports that BZ treatment increases positive responses in a taste reactivity paradigm

YOUNG PSYCHOPHARMACOLOGIST AWARD, NEW FELLOW ADDRESS

Friday August 28, 1987 • 4 00 p m -4 50 p m
Marriott Marquis Hotel • Boothe/Edison Room
 Chair *Donald Overton*, Departments of Psychology and Psychiatry, Temple University

BEHAVIORAL PHARMACOLOGY OF THE ATYPICAL ANXIOLYTIC BUSPIRONE John H Kehne Department of Psychiatry, Yale University School of Medicine, 34 Park St., New Haven, CT 06508

There is much interest in the mechanism of action of non-benzodiazepine anxiolytics that are devoid of muscle relaxant and sedative side effects In the present study, systemically-administered buspirone showed potent anxiolytic activity using the fear-potentiated startle paradigm Anxiolytic action was also found following direct infusion of buspirone into the lateral ventricular system Gepirone, an analog with a pharmacological profile different from buspirone with respect to dopamine, also demonstrated anxiolytic action in this model, whereas the common metabolite 1-pyrimidinyl-piperazine (1-PP) was without effect Buspirone's blockade of fear-enhanced startle was not