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Expectancy of analgesic effectiveness is a recognized modulator of pain perception. An experimental pain paradigm was used in a balanced placebo design to evaluate the independent effects of an analgesic or a placebo, unconfounded by subjects' expectation of receiving either. Results indicate that experimental effects that are attributable mainly to psychological mechanisms were more powerful than effects attributable to drugs. The powerful effects of expectation were also evaluated in the context of postsurgical pain. Subjects given higher levels of expectancy reported significantly less pain than subjects with low induced expectancies. High-expectancy subjects returned to work sooner and took fewer painkillers. The results are examined in light of the extant models of expectancy.

SELF-ADMINISTRATION OF HYPNOTICS: DOSE ESCALATION. T. A. Roehrs, B. Pedrosi and T. Roth. Henry Ford Hospital, Detroit, MI.

Eighteen patients with two differential insomnia diagnoses were studied. Each received both drug (triazolam) and placebo conditions: three nights of enforced administration of a pill, followed by four choice nights, when they had the opportunity to self-administer 0, 1, 2, or 3 pills before bedtime. On 56% of the choice nights, 51% of drug nights, and 61% of placebo nights, a pill was self-administered by the two groups. One insomnia group selected pills on more nights than the other group. A greater number of placebo pills were taken compared to active drug. Paired night-to-night analyses revealed an increase in placebo pills and a small reduction in triazolam pills, a drug by night pair interaction with placebo but not triazolam varied night-to-night, and a group by night pair interaction had one group varying night-to-night and the other group remaining consistent after an initial increase.

AWARENESS AND COMPENSATION OF VISUOSPATIAL DEFICITS BY ADULT CHILDREN OF ALCOHOLICS. Steven L. Schandler, Michael J. Cohen, Edward Dana, Jr., Connie Thomas-Bigney and Stephanie K. Klucas. Chapman University and Veterans Affairs Medical Center, Long Beach, CA.

Persons with a family history of alcoholism display visuospatial learning that is significantly poorer than that displayed by persons with no family alcoholism history. This study indicated that persons with a family alcoholism history display an enhanced awareness of and concern about their visuospatial learning performance and an enhanced resistance to information about their learning that differs from their own perceptions. However, these factors do not result in the incorporation of strategies leading to enhanced visuospatial learning performance.

POSTER SESSION

Substance Abuse: Clinical and Experimental Issues I.

EFFECTS OF AGE, STRAIN, AND NICOTINE ON RATS' ACOUSTIC STARTLE. Jane B. Acri,* Mazen I. Saah,† Kelly J. Brown‡ and Neil E. Grunberg.† *NIDA Addiction

Research Center, Baltimore, MD, †University of Virginia, Charlottesville, VA, ‡Uniformed Services University of the Health Sciences, Bethesda, MD (K.J.B., N.E.G.).

These experiments examined the effects of age and strain on acoustic startle reflex (ASR) amplitude and prepulse inhibition (PPI). The first experiment examined effects of chronically administered nicotine and saline in Sprague-Dawley, Long Evans hooded, and Wistar rats. A second experiment examined the effects of chronically administered nicotine and saline in rats of two age groups. Results of the experiments indicate that rats of different ages and strains have significant differences in ASR amplitude and PPI, and that older animals are slightly more responsive to nicotine. These are, therefore, important variables in the analysis of drug effects in animals.

INTERACTIONS OF STRESS AND NICOTINE ON PPI AND ACOUSTIC STARTLE. Jane B. Acri,* Stephanie Nespore,† Kelly Brown‡ and Neil E. Grunberg.† *NIDA Addiction Research Center Baltimore, MD, †Uniformed Services University of the Health Sciences, Bethesda, MD.

This experiment investigated effects of stress and nicotine on acoustic startle reflex (ASR) amplitude and prepulse inhibition (PPI) in rats. Saline or nicotine was administered by osmotic minipump. On drug administration day 10, rats were exposed to either no stress (control) or restraint stress, or were in the presence of restrained rats. Then, rats were tested for ASR amplitude and PPI. Stress and nicotine interacted significantly to reduce the amplitude of ASR and reduce PPI to the level of saline controls. Results indicated that nicotine can counteract the effects of stress on startle measures, and this effect may help to explain why people smoke under stress.

PRENATAL COCAINE EXPOSURE AFFECTS MOTOR ACTIVITY FOLLOWING ACUTE QUINPIROLE INJECTION IN WEANLING RATS. Alissa B. Gilde,* Harry E. Hughes and Diana L. Dow-Edwards.† *Hofstra University, Hempstead, NY, and †SUNY Health Science Center at Brooklyn, Brooklyn, NY.

This study examined the effects of prenatal cocaine exposure on motor activity following quinpirole challenge in weanling rats. Pregnant rats received 30 or 60 mg/kg/day cocaine HCl orally during gestational days 8-22. A vehicle-intubated control group pair-fed to rats receiving the higher dose of cocaine was also maintained. Offspring were evaluated daily for the onset of developmental milestones up to 21-22 days of age. Compared to pair-fed controls, a delay in onset of walking was observed in cocaine-exposed rats. Pups then received 0, 0.08, 0.5, or 1.0 mg/kg of the D2 agonist quinpirole SC followed immediately by 60 min of activity monitoring. Data regarding motor activity are forthcoming.

PAVLOVIAN CONDITIONING AND TOLERANCE TO THE ANORECTIC EFFECT OF NALOXONE. Tina M. Goodison and Shepard Siegel. McMaster University, Hamilton, Ontario, Canada.

The present experiment assessed the effects of repeated administration of naloxone on 10% sucrose intake and the importance of learning principles in mediating these effects.