PRENATAL OPIATE RECEPTOR BLOCKADE: CHANGES IN POSTNATAL BEHAVIOR AND DEVELOPMENT. Nancy A. Shepanek, Robert F. Smith, Linda A. Anderson, Catherine A. Medici and Shannon Dodson. George Mason University, Fairfax, VA.

We conducted a broad behavioral and developmental screen following prenatal exposure to naloxone (1 mg, 5 mg, or 10 mg/kg/day). Results indicated increases in adult body weights, (5 and 10 mg) suppression of open field activity (1 mg), facilitation of performance on DRL (10 mg), and increased sensitivity to pain (10 mg). The results of this study demonstrate that prenatal exposure to low and high doses of naloxone have different effects on postnatal development and behavior, and some of these changes persist well into adulthood. Further research is needed to determine the mechanisms underlying these changes.

PHYSICAL AND NEUROBEHAVIORAL DEVELOPMENT OF RHESUS NEONATES EXPOSED PRENATALLY TO COCAINE. Jane E. Ellis, Leonard L. Howell and Larry D. Byrd. Emory University, Atlanta, GA.

Clinical reports suggest that human neonates exposed in utero to cocaine exhibit atypical physical features and behaviors. The present study assessed effects of chronic prenatal cocaine exposure on physical and neurobehavioral development in rhesus monkeys under controlled conditions. Beginning 24 days postconception and continuing throughout gestation, females received via osmotic minipumps a specific concentration of cocaine. At parturition, infants' physical and behavioral states were assessed using a modified Apgar scale. Physical growth measures were recorded at birth and periodically thereafter. Modified Brazelton/Bayley scales characterized neurobehavioral capability. Physical and neurobehavioral deficiencies attributed to human neonates exposed prenatally to cocaine were not observed in cocaine-exposed rhesus neonates. (Supported by U.S. Public Health Service grants DA-01161, DA-06264 and RR-00165.)

CHARACTERIZING PRENATAL GROWTH AND DEVELOPMENT IN RHESUS MONKEYS USING ULTRASONOGRAPHY. Jane E. Ellis and Larry D. Byrd. Emory University, Atlanta, GA.

Ultrasound is used diagnostically to study development and visualize structural features in utero. Few data are available on development in rhesus monkeys throughout gestation; normative information can be important in evaluating effects of pharmacological agents on the fetus. In the present study, ultrasonography was performed on 16 time-bred rhesus monkeys at 26-day intervals beginning on gestational day 24. Physical growth measurements were taken using internal calipers and calculated via the ultrasound unit. Means ($\pm$SEM) were derived at increasing gestational age to provide fetal growth profiles. Internal organs were visualized to identify gross abnormalities. Ultrasonography provides information about development and effects of pharmacological agents on the developing fetus. (Supported by U.S. Public Health Service grants DA-01161, DA-06264 and RR-00165.)

OPIOID RECEPTOR SUBTYPES MEDIATE OPPOSING BEHAVIORS THROUGH THEIR DOPAMINE INTERACTION. Karen M. Ward and Priscilla Kehoe. Trinity College, Hartford, CT.

Neonatal opioid systems mediate affective responses such as isolation vocalizations, analgesia, and reward. Opioid receptor subsystems produce differential effects. Morphine, a μ agonist, decreases calls and activity, promotes positive associations, and increases dopamine release. Conversely, the κ agonist, U50,488H, increases vocalizations and activity, does not support preference behavior, and decreases dopamine. To assess behavioral differences and the opioid-dopamine interaction, apomorphine, a dopamine agonist, was administered; a dose (0.5 mg/kg) which had no effect itself blocked the U50,488H increase in vocalizations. These results suggest that apomorphine-induced dopamine release may counteract the negative affective response of κ stimulation.

THE INFLUENCE OF BUPRENORPHINE ON THE EEG OF HEROIN ADDICTS. Bonnie S. Koeppl,* Peter M. Koeppl† and Ronald I. Herning.‡ *National Institute on Drug Abuse Addiction Research Center, Baltimore, MD, †Hahnemann University, Philadelphia, PA, and ‡National Institute on Drug Abuse Addiction Research Center, Baltimore, MD.

The utility of buprenorphine, a partial opioid agonist employed as a chemotherapeutic agent in the treatment of opioid dependency, was assessed through the evaluation of the EEGs of heroin addicts. Two areas of interest were studied: a) buprenorphine as a withdrawal agent, and b) the effects of withdrawal from buprenorphine itself. Frequency and power measures were obtained for the δ, θ, α, and β EEG bands. Twelve opioid dependent males participated in a 54-day buprenorphine maintenance and withdrawal protocol. Findings included significant shifts in θ wave frequency and α, β, and θ wave power between maintenance and withdrawal.

DEPRESSION SECONDARY TO DECONGESTANT MEDICATION. Benzion Twerski. Elizabeth General Medical Center, Elizabeth, NJ.

Five cases are reported in which depressive symptoms could be attributed to phenylpropanolamine. This drug is widely available as a prescription and over-the-counter cold remedy and diet aid. It is said to be the fifth most popular medication. There are hundreds of reports of adverse reactions, both medical and psychiatric. Depression was only recently described among these. Although there are no empirical studies on this, it is suggested that clinicians include in assessment of medical history such items as allergies, chronic sinus conditions, and use of prescription and over-the-counter medication.

DOES UNRESTRICTED BENZODIAZEPINE AVAILABILITY LEAD TO WIDESPREAD USE? Miren Busto,* I. Ruiz,† A. Gacitua,* C. Roco,† F. Espinaoza* and U. Busto.‡ *CORSAPS, Santiago, Chile, †University of Chile, and ‡Addiction Research Foundation, University of Toronto, Toronto, Canada.

We tested the relation between unrestricted benzodiazepine availability and prevalence of use and long-term use in Santi-

ago, Chile. Data were obtained in a stratified sample (N = 1500) on demographic characteristics of subjects, benzodiazepine use, and long-term use. Past-year prevalence of use was 31.4% (higher in females, the elderly and 13% long-term users). Forty-five percent of use was over-the-counter. Long-term users were older than users, predominantly females over 40 years. Results show that unrestricted availability of benzodiazepines leads to high use, but long-term use seems to be within rates described for other populations.

THE EFFECTS OF OXAZEPAM ON ANXIETY IN A NONCLINICAL POPULATION. Jennifer F. Landon* and Kenneth J. Sher.† *Kansas City Department of Veterans Affairs Medical Center, Kansas City, MO, and †University of Missouri, Columbia, MO.

The present study investigated the effects of a benzodiazepine (oxazepam) on anxiety as measured by autonomic and self-report indices in a nonclinical sample. These effects were assessed during a resting state and stressed state. Psychophysiological and self-report measures were recorded during an initial baseline (before drug administration), postdrug baseline (after drug administration when subjects were unaware of upcoming stressor), countdown, stressor, and poststressor baseline phases. Anxiolytic effects were found during stressed state as measured by skin conductance level. The benzodiazepine did not significantly affect heart rate or self-reported anxiety. Implications are discussed.

ANXIETY AND DRINKING BEHAVIOR: MODERATING EFFECTS OF ALCOHOL-RELATED EXPECTANCIES. Matt G. Kushner* and Kenneth J. Sher.† *University of Minnesota, Minneapolis, MN, and †University of Missouri, Columbia, MO.

We evaluated whether alcohol-related expectancies moderate the association between measures of anxiety and alcohol use/abuse. As predicted, student subjects with stronger expectations for alcohol-induced tension reduction showed the strongest positive correlations between measures of anxiety and drinking behavior; however, this finding held for male subjects only. These findings are consistent with past studies showing gender differences in the alcohol/anxiety connection, and also highlight the need to understand better the processes underlying the development of alcohol-related expectancies. We suggest that these issues potentially relate to the etiology of alcohol problems for some individuals.

IMPLICIT PRIMING OF AN ALCOHOL EXPECTANCY MEMORY NETWORK. Genevieve M. Chenier and Mark S. Goldman. University of South Florida, Tampa, FL.

This study was designed to test the theory that alcohol expectancies can be usefully conceived as a semantic network that contains information about alcohol effects and that can operate on an implicit level with no awareness or conscious deliberation. An implicit memory, word fragment completion task was primed using either an alcohol-related or neutral context. Word fragments were derived from alcohol expectancy and neutral words. Subjects were not told that the context was pertinent to the purpose of the experiment. A repeated measures ANOVA indicated a significantly elevated number of expectancy fragments completed in the alcohol context, as compared to other conditions, $F(1, 113) = 12.46$, $p < .001$. The study offers support for operation of expectancies on an automatic memory level.

PRIMING THE PUMP: ALCOHOL EXPECTANCY ACTIVATION INCREASES DRINKING BEHAVIOR. Laurie Roehrich* and Mark S. Goldman.† *University of California, San Francisco, CA, and †University of South Florida, Tampa, FL.

If expectations about alcohol exist as stored memories, priming this construct may influence drinking patterns. Eighty undergraduate women (n = 20 per cell), participated in two, supposedly unrelated studies. A 2 × 2 factorial design simultaneously varied contextual primes (bar or control video) with construct primes (expectancy or neutral words). Beer consumption during a subsequent taste-rating task served as the primary dependent variable. Women exposed to unobtrusive alcohol cues drank significantly greater amounts ($p < .001$) of beer, compared with subjects who received control primes. The priming techniques appeared to have additive effects. Alcohol primes may also have differential effects for heavier versus lighter female social drinkers.

EFFECT OF MINIMUM DRINKING AGE ON ALCOHOL CONSUMPTION AND IMPAIRMENT. Vincent J. Adesso, Eric D. Devine, Constantine Ioannidis and Bertrand D. Berger. University of Wisconsin, Milwaukee, WI.

Research has found no change in consumption and mixed results in impairment with changes in the minimum legal drinking age. Alcohol consumption and impairment due to alcohol were compared in 1,016 male and female college students 6 months younger (n = 516) and 6 months older (n = 500) than the minimum legal drinking age (MLDA). The sample was selected from each of four semesters across a 2-year period while the new MLDA took full effect. Results of the 2 × 2 × 4 (Gender × Age × Time) MANOVA revealed a Gender by Time interaction for impairment with both men and women increasing in impairment across time and a main effect for gender—men consumed more than women.

GENDER AND AGE EFFECTS ON ALCOHOL EXPECTANCIES. Leslie H. Lundahl, Tania M. Davis, Vincent J. Adesso, Bertrand D. Berger and Celeste O. Milligan. University of Wisconsin, Milwaukee, WI.

Little work has investigated the possible relations among gender, age, and alcohol expectancies. Using multivariate analysis of variance, the Alcohol Expectancy Questionnaire (AEQ) was used to examine the differences among these variables. Results revealed that expectancies of increased physical pleasure, more global positive changes, and tendencies toward stronger tension reduction differentiated the men from the women. In addition, older subjects generally were less likely to report global, positive expectancies, increased assertiveness,