macokinetics, ethnic differences in protein-binding and in the pharmacodynamics of psychotropics as well as other drugs have also been reported.

Future studies should explore newer assay methods and imaging techniques capable of measuring receptor-drug interactions, in addition to utilizing existing research methodologies to more systematically scrutinize the nature and extent of such differences. They should be designed not only to ascertain differences in drug responses, but also to examine genetic and environmental (e.g., diet, exposure to enzyme inducers) factors that may contribute to these differences. Pharmacogenetic probes could be used in combination with studies examining pharmacokinetic and pharmacodynamic issues for such purposes.

SOCIOECOLOGIC ISSUES IN PSYCHOPHARMACOLOGY: A METHODOLOGICAL CRITIQUE. Samuel Turner. University of Pittsburgh, Pittsburgh, PA.

Ethnic differences in drug absorption, distribution, and metabolism have been clearly demonstrated by numerous authors. The majority of research studies providing evidence for cross-cultural differences in the pharmacokinetic and pharmacodynamic properties of various drugs have compared individuals of Asian descent, and to a lesser extent blacks, to Caucasians. However, few studies have systematically assessed the role of socioecologic factors in relation to kinetic and dynamic responsivity to psychotropics. Specifically, it is well known that nutritional status, alcohol and substance abuse history, and chronic psychological stress are all factors that may directly affect drug metabolism. Additionally, interethnic pharmacokinetic studies on specific psychiatric disorders may vary dramatically as a function of inappropriate diagnosis, as well as from pooling subtypes of similar psychiatric disorders (e.g., major depression) without differentiating them according to first versus second episode, or without consideration for chronicity of illness being evaluated.

The following presentation will discuss some important socioenvironmental methodological factors which have direct influence on metabolic pathways, and hence on any interethnic pharmacokinetic and pharmacodynamic differences observed between ethnic groups studied.

CULTURAL FACTORS IN PHARMACOTHERAPY. William Lawson. University of Arkansas School of Medicine, Little Rock, AR.

Recent advances in pharmacological treatment of mental disorders have greatly improved therapeutic outcomes. However, the majority of these gains have been observed in majority culture populations, while such treatment advances for African Americans and other ethnic groups have not kept pace. Although variations in pharmacotherapeutic outcomes are relevant to all treatment populations, the focus of the present presentation will largely encompass African American populations. It has been observed that some of the disparity in pharmacotherapeutic outcome may be attributed to diagnostic misclassification. African Americans are often overdiagnosed as having schizophrenia and underdiagnosed for a number of disorders that respond to specialized pharmacotherapy including mania, panic disorder, or obsessive compulsive disorder. Moreover, the overprescription of antipsychotics probably contributes to poor compliance, poor outcome, and increased likelihood of neurological complications such as tardive dyskinesia. Additional societal bias probably plays an excessive role in prescribing for African American populations in that they are often treated as a homogeneous undifferentiated mass. Black Americans are more likely to receive "prn" medication in inpatient settings, excessive dosing despite pharmacological evidence that suggests otherwise, and medication to the exclusion of psychological treatment despite a demonstrated need for the latter. Finally, pharmacokinetic and pharmacodynamic differences in response to new pharmacological agents are generally less available to African Americans because this group is often not included in new drug trials. Also, the high cost associated with new agents are often prohibitive. In sum, attitudinal, diagnostic, and pharmacological issues must be addressed to assure more responsible prescribing for African Americans as well as other ethnic groups.

SYMPOSIUM

Contemporary Research in Behavioral Pharmacology

Chair: *Mark Galizio*, University of North Carolina at Wilmington, Wilmington, NC.

Discussant: *Michael Perone*, West Virginia University, Morgantown, WV.

DRUGS AS DISCRIMINATIVE STIMULI. Nancy A. Ator. The Johns Hopkins University School of Medicine, Baltimore, MD.

Work with lorazepam in two-lever food-maintained drug discrimination procedures with baboons and rats found greater specificity in the drug stimulus generalization profile when this drug was used as a training drug compared to studies with other benzodiazepines. That is, animals trained to discriminate lorazepam did not reliably make the drug response in tests with barbiturates, although animals trained to discriminate diazepam, chlordiazepoxide, triazolam, oxazepam, and sometimes midazolam commonly have done so. Characterization of the discriminative stimulus effects of lorazepam included manipulation of species, training dose, and route of administration; drug interaction studies; and tests with a variety of anxiolytics. Time course of the discriminative-stimulus effects of lorazepam and other drugs also has been studied using a multiple session procedure. Other data have been collected with the novel anxiolytic buspirone and specific GABA agonists as training drugs. Taken together, these results have provided information relevant to a number of issues central to interpretation of drug discrimination data, including a) the issue of whether intermediate levels of the drug response in test sessions reflect threshold or partial drug stimulus effects, rather than loss of stimulus control, and b) the extent to which the discriminative-stimulus effects of relatively specific compounds show comparably specific generalization profiles. Such data are relevant both to interpretations of the specificity of the drug discrimination model and to speculation about the extent to which such models can aid discovery of new molecular mechanisms of behavioral action of psychoactive drugs. Furthermore, they can be related to data from self-administration models to determine the extent to which generalization profiles for specific training dugs may be useful for abuse liability evaluations.