

combination of supportive therapy and naltrexone, whereas the combination of naltrexone and coping skills therapy is most effective in helping the patient avoid relapses to heavy drinking.

**PSYCHOPHARMACOLOGY TREATMENT RESEARCH IN DEPRESSION: IMPLICATIONS FOR CLINICAL PSYCHOLOGY PRACTICE.** M. Tracie Shea. Brown University, Providence, RI.

The effectiveness of various forms of antidepressants in the treatment of depression has been well-established in placebo-controlled trials. Findings from a large multisite naturalistic study of the course of affective illness (the NIMH Collaborative Depression Study), however, have suggested that a substantial proportion of individuals with depression seeking treatment in the community receive less than adequate levels of treatment (psychotherapy or pharmacotherapy) (Keller et al., 1986). Perhaps one factor contributing to this discrepancy is the lack of clarity regarding the answers to more specific treatment-related questions, such as: When should psychopharmacology be considered in the treatment of depression? When should psychopharmacology be the treatment of choice? How long should depressed patients be treated with pharmacotherapy? More recent research has begun to shed light on such questions.

The purpose of this presentation will be to highlight recent findings from psychopharmacology research that are relevant to such treatment choices in depression. Findings will include the implications of diagnostic subtypes, symptom severity, level of functioning, chronicity and recurrence of depression, and personality traits and disorders for treatment with psychopharmacology. Other treatment considerations including speed of response and duration of treatment will also be considered. The implications of this research for clinical psychology practice will be discussed.

**NEW MEDICATIONS FOR SCHIZOPHRENIA: THERAPEUTIC IMPACT AND SIDE EFFECTS.** Nina R. Schooler. University of Pittsburgh, Western Psychiatric Institute and Clinic, Pittsburgh, PA.

Antipsychotic medications such as chlorpromazine were among the first effective pharmacologic therapies for mental illness. Their efficacy in the treatment of psychotic symptoms is well established. Further, they may provide the base for additional psychological therapeutic gains. However, side effects of these medications also present substantial obstacles to psychological therapies. Motoric slowing, restlessness, tremors, and even memory deficits can compromise the ability of client to profit from psychological treatment. This presentation will first review the clinical and behavioral profile of effects of currently available antipsychotic medications, focusing on effects that may enhance psychological therapies and those that may impede treatment. Second, it will examine evidence regarding the role of medication in the context of specific psychological therapies: individual treatment or psychotherapy, family treatment, and behavioral and group therapy. For the first time in 20 years there is a new drug available for treatment of schizophrenia (clozapine). Two other agents are in late stages of development and will be marketed within the next several years (remoxipride and risperidone). Finally, the presentation will compare currently marketed antipsy-

chotic drugs to these newer compounds in terms of both efficacy and side effects. Based on this comparison (and in the absence of experimental data regarding the relationship of novel antipsychotic medication and psychological treatment), we will speculate on how the spectrum of effects of new antipsychotic medications may influence clinical psychology practice with schizophrenic patients in the future.

#### **SYMPOSIUM**

*Developmental Perspectives on Substance Abuse: Childhood to Adulthood.*

Chair: *Stanley W. Sadava*, Brock University, St. Catherine's Ontario, Canada.

**DEVELOPMENTAL SYSTEMS THEORY AND ALCOHOLISM: ANALYZING PATTERNS OF VARIATION IN HIGH-RISK FAMILIES.** E. Fitzgerald, R. Zucker and H. Yang. Michigan State University, East Lansing, MI.

The MSU Longitudinal Study involves over 250 predominantly low-SES families, 150 having fathers who meet DSM-III-R criteria for alcohol dependence or abuse (approximately 40% of the mothers also meet these criteria) and 90 in which neither the mother nor father meet such criteria. When families enter the study, they must be intact and have a biological son between the ages of 3 and 5. In this report, we focus on data from Wave 1 that pertain to parental ego functioning, maternal social support, and stress-mediated parental psychopathology (lifetime alcohol problems, antisocial behavior, current depression), and to children's temperament, behavior problems, and cognitive functioning. The biopsychosocial or developmental systems model driving this prospective study presumes that each individual has a unique developmental and experiential history.

From a developmental systems perspective, alcohol abuse is conceptualised as a life span problem with roots reaching at least to the preschool years. Our multifactorial approach dictates five levels of analysis relevant to investigations of the structure and function of a system. First, the subsystems or individual components of the systems must be identified and described (e.g., assessing the presenting state characteristics of individual members of the family). For example, alcoholic males have higher lifetime alcohol problems, antisocial behavior, and self-reported depression (all  $p$ 's < .01) than do non-alcoholic males. Male COA's have more total behavior problems ( $p$  < .05) than children of nonalcoholics. Second, the structural and functional connections of subunits must be identified and described (e.g., assessing intrafamilial relationships such as spousal, parent-child, and sibling relationships). For example, greater worst-ever depression in fathers is associated with greater lifetime alcohol involvement and current depression among mothers ( $P$  < .01). Third, one must identify and describe properties that emerge when this collection of components is coupled together into a specific dynamic structure (e.g., assessing family structure and function as reflected by family traditions, values, beliefs, resources, and cohesiveness). Fourth, one must identify adjunctive systems (such as work, neighborhood, and subculture) that may have direct effects on the family unit or that affect the family indirectly via individual members (e.g., assessing the impact of adjunctive systems on individual and family functioning). Finally, one must describe and eventually test predictive models of systemic state changes (e.g., assessing linear and nonlinear

models of system organisation as well as bifurcation that leads to system disorganisation and reorganisation). In this presentation, we illustrate each of these levels of analysis, drawing on results from Wave 1 of the longitudinal study.

**STRESSFUL LIFE EVENTS AND FAMILY FACTORS AS PREDICTORS OF HEAVY OR ABUSIVE DRINKING AMONG ADOLESCENTS.** M. Lynne Cooper and Robert Pierce. State University of New York at Buffalo, Buffalo, NY.

Despite substantial interest in the effects of parental alcoholism on children and adolescents, research to date has been far from conclusive. Whereas some studies have shown higher levels of alcohol and drug use among adolescents, others have found no differences (for reviews see Sher, 1987; West and Prinz, 1987). Both variability in the nature of parent and adolescent samples and failure to consider the potentially confounding effects of stressful or chaotic family environments have undoubtedly contributed to these discrepant results.

The present study therefore examined the independent and interactive effects of parental alcohol problems, family composition (intact vs. all others), and stressful life events on alcohol use and abuse in a sample of 816 adolescents, ages 13 to 17. Self-reports of life events and alcohol outcomes were obtained from the adolescents in face-to-face interviews; data on family composition and parental alcohol problems were obtained in telephone interviews with primary caregivers (83% of whom were biological mothers).

A series of hierarchical multiple regression analyses predicting the number of drinking problems in the past six months, frequency of heavy drinking, and frequency of drinking to cope with or regulate negative affect (escape drinking) were estimated; all analyses controlled for age, race, and gender of the adolescent and parental education level.

Results revealed consistent effects for stressful life events; indices summarising the number of negative life events that occurred to self, to family, and to friends within the past year independently predicted all indicators of heavy or abusive drinking, collectively accounting for between 4% and 10% of the variance ( $p$ 's < .001). Moreover, examination of independent beta weights showed that each index independently contributed to the prediction of heavy or abusive drinking. Family composition also predicted frequency of heavy drinking and escape drinking, with adolescents from intact homes reporting lower levels on both measures. In contrast, parental alcohol problems (regardless of the scoring mechanism) did not significantly predict adolescent drinking. However, biological fathers' drinking problems significantly interacted with negative self-events to predict adolescent drinking problems; the form of the interaction showed that the relationship between events and problems was substantially stronger among adolescents whose fathers experienced a drinking problem in the last three years than it was among those whose fathers were nonsymptomatic. Results will be discussed in terms of the importance of environmental factors in accounting for alcohol use in early to mid-adolescents.

**PERSONALITY-ENVIRONMENT MISMATCH, ALCOHOL USE BEHAVIORS AND CONSEQUENCES: A PROSPECTIVE STUDY OF ADOLESCENCE.** M. Bates and E. W. Labouvie. Rutgers University, Piscataway, NJ.

An interactionist approach to studying the development of use behaviors and associated consequences suggests that knowledge of the relation between persons and environment may provide more information about the roles of personality risk and environmental variables that affect or moderate risk than either of these elements viewed separately. Our conception of heightened vulnerability to intensive use or use consequences is thus based upon the notion of goodness-of-fit or "match" between personality needs and the individual's perception of opportunities for meeting these needs within his/her environment. We focus on the chronic persistence of mismatch across adolescence to capture sustained movement within a high-risk developmental pathway which may portend continuity of intensive use or use consequences into early adulthood. Given the heightened vulnerability of adolescents with a family history positive for alcoholism, we also test the direct and interactive effects of this additional risk factor. Data from the Rutgers Health and Human Development Project, a prospective study of the development of alcohol and other drug behaviors in an age- and sex-stratified sample of New Jersey adolescents are used. A 92% retention rate was obtained across three test occasions spaced at three-year intervals between 1979 and 1987. This study includes those subjects ( $N = 870$ ) who were 12 or 15 years of age at the first testing; the age range spanned is from 12 to 21 years. The method of orthogonal polynomials is applied at the intraindividual level and subjects' alcohol use is defined in terms of level, linear, and quadratic trends in use intensity and use consequences. These three parameters represent time-aggregated intensity level, developmental stability versus change in level, and accelerations versus plateaus or decelerations in change over time. This work extends our previous study of the match between personality needs and perceived social support systems of adolescents to include other potentially high-risk mismatches such as those in the areas of achievement, cognitive structure, play, and autonomy. (This work supported by NIDA grant DA/AA 03395 and the Alcoholic Beverages Medical Research Foundation.)

**PROBLEM BEHAVIOR THEORY: APPLICATION TO SUBSTANCE USE IN A LONGITUDINAL STUDY.** Nancy H. DeCourville. Brock University, St. Catharines Ontario, Canada.

According to problem behavior theory (Jessor and Jessor, 1977), behaviors such as illicit drug use, early sexual involvement, and heavy drinking constitute a syndrome of problem behaviors whose performance is related to an individual's proneness to deviance. Proneness to deviance is, in turn, indicated by a particular profile of scores on measures of the three systems of variables comprising the model: personality, perceived environment, and behavior. Results reported by Jessor and his colleagues indicate that the model provided a reasonable account of problem behaviors in both adolescence and young adulthood (Jessor, Donovan, and Costa, 1991). Further, Jessor, Donovan, and Costa found that as respondents in their sample made the transition from adolescence to adulthood, there was a corresponding movement on the three systems of problem behavior in the direction of greater conventionality (e.g., decreased involvement in general deviant behavior).

The present work tested problem behavior theory in the domain of substance use. Confirmatory factor analyses and analyses of covariance structures were used to examine the