Journal Article Reviews

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This section provides brief reviews of articles from many journals that relate to the interests of individuals seeking information on research and teaching in developmental and behavioral pediatrics. The reviews will not provide critical comments, but the articles have been selected from peer-reviewed journals.

Readers are invited to recommend articles for inclusion in this section. If you read or author an article you believe would interest our readers, please send a copy to Mary F. Sharkey, Journal of Developmental and Behavioral Pediatrics, 345 West 70th Street, #6F, New York, NY 10023.

ADOLESCENT BEHAVIOR

Simantov E, Schlen C, Klein JD: Health compromising behaviors: Why do adolescents smoke or drink? Identifying underlying risk and protective factors. Arch Pediatr Adolesc Med 154:1025, 2000. Smoking and drinking are associated with the leading causes of mortality and morbidity as well as posing immediate risks to health. Despite the well-known adverse effects of smoking and drinking, the rates of these behaviors among adolescents remain at unacceptably high levels. This study examines the relationships between rates of smoking and drinking and a wide range of life experiences, including violence, negative life events, and depressive symptoms. Analyses were based on a cross-sectional survey of 2574 male and 2939 female students from grades 7 through 12 who participated in the Commonwealth Fund Survey of the Health of Adolescent Girls and Boys. Adolescents in grades 11 and 12 were three times as likely to smoke regularly, four times as likely to drink regularly, and two times as likely to report the use of drugs as those in grades 7 to 8. Reported rates of regular smoking (11.2%) and drinking (20.9%) were significantly higher for adolescents reporting a history of abuse, family violence, negative life events, or high depressive symptoms. Protective factors associated with lower rates of smoking included parental support or participation in extracurricular activities. There was no significant association between drinking behavior and participation in activities. Adolescent girls were more likely than boys to say that they smoke to relieve stress and to help them stay thin. Boys were more likely to say that smoking makes them feel "cool." Girls were more likely to report that they drink to relieve stress and forget their problems, whereas boys were more likely to report that they drink because "all the popular kids drink." These findings suggest that adolescent boys may be more resilient and less susceptible to stressors than adolescent girls. The study also supports previous findings that adolescents who had been physically or sexually abused are much more likely to engage in health-risk behaviors. The authors suggest that, because of the increased risk for regular smoking and drinking in adolescents with a history of abuse, family violence, depressive symptoms, and stressful life events, routine screening in these areas should be an essential component of adolescent health care visits and

that these factors should be considered in the design of prevention programs. M.I.R.

Spoth RL, Redmond C, Shin C: Reducing adolescents' aggressive and hostile behaviors. Arch Pediatr Adolesc Med 154:1248, 2000. Recent studies document alarming rates of conductrelated problems among adolescents. The health and economic costs of adolescent aggressive behaviors are considerable, typically estimated to be many billions of dollars. This study focuses on a brief family intervention addressing adolescent aggressive, hostile, and destructive behaviors. Participants were 6th grade students selected from 22 public schools participating in the Iowa Strengthening Families Program (ISFP). The intervention consisted of seven consecutive weekly meetings with separate parent and child skill-building curricula and a family curriculum based on the biopsychosocial model and other empirically based models of family risk and protective factors. Characteristics of the intervention included multiple informants and multiple measurement methods including observer ratings, self-reports, and parent reports. Observer ratings of adolescent aggressive and hostile behaviors in interactions with parents were based on video coding, using behavioral scales from the Iowa Family Interaction Rating Scales. The study also included parent and adolescent reports of aggressive and hostile behaviors in interactions and an adolescent-reported index of aggressive and destructive conduct. Data were collected during the 6th grade (pre- and postintervention), as well as the 7th, 8th and 10th grades. Results showed a generally positive trend in differences over time between intervention and control groups. The intervention group demonstrated a significantly lower score than the control group on the adolescent report of aggressive and destructive conduct at the 10th-grade follow-up assessment. Significant differences were also found in observer-rated aggressive and hostile behaviors in adolescent-parent interactions. Analyses indicated significant group differences in interactions with mothers but not with fathers. The authors comment that the findings provide evidence of ISFP reductions in adolescent aggressive and hostile behaviors up to 4 years past baseline, when adolescents are typically at highest risk for initiating serious aggressive behaviors. The authors conclude that a brief family intervention focusing on competency training can reduce aggressive and hostile behaviors in adolescents' interactions



with parents and aggressive behaviors outside the home. They attribute the lasting effects of the intervention to its theoretical basis, involvement of both parents and children in research-based interactive-skills training, and developmental timing. They discuss the possible public health implications. M.I.R.

ASSESSMENT OF CHILDHOOD DISORDERS

Special Section: Laboratory and performance-based measures of childhood disorders. J Clin Child Psychol 29:475, 2000. This introduction to this special section is presented by Paul J. Frick, who discusses the process by which the special section was prepared and the critical issues that arose as the topics were developed. This issue provides a review of existing laboratory and performance-based measures of childhood psychopathology by recognized experts in specific areas. Twelve articles are presented, and they address such topics as measurement of anxiety, depression, attention-deficit/hyperactivity disorder (ADHD), autism, social problems, and conduct disorders in children. Other articles address the Eyberg Child Behavior Inventory and the Devereaux Scales. Also presented are studies investigating interpersonal problem solving in preschool children and first graders, peer affiliations in aggressive and nonaggressive children, understanding parenting stress, and obscene telephone calls to children. C.L.G.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

Willens TE, Biederman J, Wong J, Spencer TJ, Prince JB: Adjunctive donepezil in attention deficit hyperactivity disorder youth: Case series. J Child Adolesc Psychopharmacol 10:217, 2000. Controlled studies have shown that, with current pharmacotherapy, there has been a 30% to 40% reduction in symptoms associated with attention deficit/hyperactivity disorder (ADHD). However, a lack of medication efficacy has been reported in 20% to 40% of individuals with ADHD. Residual ADHD symptoms in some children, as well as complete lack of response in others, necessitate the development of new pharmacotherapeutic alternatives in the treatment of ADHD. There has been recent interest in the use of cholinergic agents for ADHD. The authors of this study report on the use of donepezil, a cholinergic agent with cognitive-enhancing properties, in combination with other ADHD medications for treatment of children with ADHD who are not fully responsive to traditional pharmacotherapy. The study employs a systematic retrospective chart review of five subjects. An independent child psychiatrist determined the extent of a patient's response to donepezil by review of clinical notes and verification with the treating child psychiatrist. Patients received donepezil for a mean of 14 weeks. Donepezil was used as adjunctive pharmacotherapy in four subjects, and its dose was titrated to a maximum of 20 mg. The authors report a significant effect of donepezil in improving symptoms of ADHD. Patients and their parents reported improved executive functions such as organizational skills and "mental efficiency," in addition to improved attention. Despite the limitations of this study, the authors advocate further evaluation of the role of donepezil and other cognitive-enhancing agents for treatment of children with ADHD. M.I.R.

Willoughby MT, Curran PN, Costello EJ, Angold A: Implications of late onset of attention-deficit/hyperactivity disorder symptoms. *J Am Acad Child Adolesc Psychiatry* 39:1512, 2000. The DSM-IV requires that, in order for the diagnosis of attention-deficit/hyperactivity disorder (ADHD) to be considered, symptoms must emerge before the age of 7 years. The assumption that ADHD symptoms must be present in early

childhood has been challenged on both theoretical and empirical grounds. However, few studies have empirically evaluated this "age-of-onset criterion" (AOC). This study examines the AOC in a representative community sample using a variety of clinically relevant outcome measures that do not rely on unstructured clinician judgments regarding diagnosis. Data was analyzed from four annual waves of interviews with 9- to 16year-olds from the Great Smoky Mountains Study. This study is an ongoing, longitudinal study of the development of psychiatric disorders and the need for mental health services in rural and urban youths. Measures include child and adolescent psychiatric assessment, impairment scales, child and adolescent services assessment, and child and adolescent impact assessments (i.e., the impact of the child on parents' lives). Confirming previous studies, a substantial majority of parents reported that their children's ADHD symptoms had been present before age 7. Twenty-six percent of youths in the inattentive symptom group were reported to first exhibit their symptoms after age 7 years, compared with 13% in the combined type (i.e., inattention plus hyperactive-impulsive symptoms) and 8% in the hyperactive-impulsive symptom group. Overall, elevated levels of ADHD symptoms, regardless of their age of onset, were associated with more impairment, higher service use, and greater negative impact on parental functioning. The early and late inattentive types did not differ on any measure of comorbidity, impairment, or impact on parental functioning. Comparisons of the early- and late-onset combined subtype group revealed that youths with early-onset symptoms did experience worse clinical outcomes than their late-onset peers. The authors recommend that AOC should continue to be included as part of the assessment of the combined, but not necessarily the inattentive, subtype of ADHD. They suggest that if a diagnosis is necessary to obtain services, a diagnosis of ADHD-not otherwise specified (ADHD-NOS) should be made for youths with late onset of symptoms. They conclude that, regardless of age of onset, youths who have elevated levels of ADHD symptoms are at increased risk for negative outcomes that may necessitate intervention. M.I.R.

Special Issue: Child and family characteristics as predictors of outcomes in the Multimodal Treatment Study of ADHD (MTA Study). J Abnorm Child Psychol 28:481, 2000. The MTA study is a large-scale, multisite treatment study of attention-deficit/ hyperactivity disorder (ADHD), sponsored by the National Institute of Mental Health (NIMH). Included in this special issue are articles that focus on the psychosocial treatment component of the study, child characteristics that may moderate treatment outcome, family predictors and/or moderators, and aspects of the family that may be modified by treatment. Seven empirical articles are presented along with a commentary by Russell Barkley. Articles specifically address the psychosocial treatment protocol employed, a comparison of behavioral versus behavioral plus pharmacological treatment, the impact of anxiety, parenting, and family stress outcomes, negative/ ineffective parenting practices, the impact of parent cognition on outcome, and patterns of familial aggregation of ADHD symptoms. C.L.G.

DISABILITY: FUNCTIONAL LIMITATIONS

Hogan DP, Rogers ML, Msall ME: Functional limitations and key indicators of well-being in children with disability. *Arch Pediatr Adolesc Med* 154:1042, 2000. Many studies have examined the family, social and medical situations of children with specific health conditions, and developmental disabilities. However, these studies have not assessed functional limitations or disability. This study sought to examine children, ages 5 to 17



years, with limitations in mobility, self-care, communication, and learning. Data for the study were derived from the 1994 and 1995 National Health Interview Surveys on Disability (NHIS-D) (N = 41,300) and the Year 2000 Health Supplements to the 1994 NHIS-D (N = 9530). Environmental measures included family resources, safety, health status, and health access. The presence and severity of limitations were measured across the domains of mobility, self-care, communication, and learning. The study found that children with mobility, self-care, communication, or learning limitations were less likely to live in homes with two parents present and more frequently lived with a single parent or had other arrangements. Children with limitations in mobility or self-care were equally likely as children without limitations to have a usual place of medical care; approximately 10% of children in each group did not have a usual source of care. Children with each type of limitation in function had poorer access to needed medical care compared with children without functional limitations and more often received delayed care or did not receive care at all because of cost or a lack of insurance. Limitations in each area of functioning were associated with poorer health status, including even mild limitations in communication and learning that were associated with poorer health status. Children with limitations were also more likely to live in homes in which another member smokes tobacco. The authors conclude that children with functional limitations (including learning and communication problems) more often have unfavorable family resources, less healthy home environments, poorer health status, and less health service access than other children, making them more susceptible to developmental difficulties beyond those associated with the challenges of their specific functional limitations. M.I.R.

DRUG AND ALCOHOL ABUSE

Delaney-Black V, Covington C, Templin T, Ager J, Nordstrom-Klee B, Martier S, Leddick L, Czerwinski RH, Sokol RJ: Teacher-assessed behavior of children prenatally exposed to cocaine. Pediatrics 106:782, 2000. The long-term outcome of children who were prenatally exposed to cocaine remains controversial. This prospective study, part of the larger and ongoing fetal Alcohol Research Center Study, included only black HIV-negative women who delivered singleton live-born infants between 1989 and 1991. Study participants were extensively screened during pregnancy for alcohol and tobacco use, as well as the use of cocaine and other illicit drugs. Prenatal drug exposure was defined by maternal history elicited from structured interviews and by infant drug testing as clinically indicated. Cocaine exposure was considered positive if either history or laboratory results were positive. Urine drug testing in pregnancy was not routinely performed. There was no attempt to quantify the degree of exposure. Six years later, 665 families were contacted and 94% agreed to participate. The child, primary caretaker, and, when possible, the mother of the child underwent blinded assessments. Drug use since the birth of the child was assessed with a structured interview. The Achenbach Teacher's Report Form (TRF) was used to obtain teacher assessments of the child's behavior. Complete laboratory and teacher data were available for 499 parent-child dyads. Children with mental retardation were excluded, with a final sample size of 471, including 201 cocaine-exposed and 270 control subjects. A comparison of relative Externalizing (Aggressive, Delinquent) to Internalizing (Anxious/Depressed, Withdrawn, Somatic Complaints) behaviors of the children was computed for the TRF. Univariate comparisons revealed boys were more likely than girls to score in the clinically significant range on total TRF, Externalizing-Internalizing difference, and Aggressive Behaviors. Cocaine-exposed children had higher Externalizing-Internalizing differences compared with controls (p < .05). Boys who were prenatally exposed to cocaine were twice as likely as controls to have clinically significant scores for externalizing (25% vs 13%) and delinquent behavior (22% vs 11%). Gender, prenatal exposures to cocaine and alcohol, and postnatal risk factors (custody changes, current drug use in the home, exposure to violence) were all related to problem behaviors. Even after controlling for these variables, however, cocaine-exposed children had higher Externalizing-Internalizing differences. Among children prenatally exposed to cocaine, change in the child's custody status was a significant predictor of TRF scores. Results of this study suggest gender-specific teacher-assessed behavioral effects related to prenatal cocaine exposure. Prenatal alcohol exposure also had a significant impact on the TRF (higher total score, increased attention problems, and more delinquent behaviors). Although other unmeasured postnatal factors may play important roles in teacher-assessed child behavior, the results of this study suggest the persistence of a biologic effect of prenatal cocaine exposure. A.D.S.

Sigelman CK, Leach DB, Mack KL, Bridges LJ, Rinehart CS, Dwyer KM, Davies EP, Sorongon AG: Children's beliefs about long-term health effects of alcohol and cocaine use. J Pediatr Psychol 25:557, 2000. The authors investigated children's knowledge of the long-term effects of alcohol and cocaine, their beliefs in the likelihood these effects would occur, and their attitudes and intentions toward use. The sample included 217 children in grades one through six. Results suggested a developmental trend in which mistaken ideas about the effects of alcohol and cocaine dissipated with age. However, no clear notion of the specific effects of alcohol or cocaine was noted at any age. Differences were noted between minority and white children's perceptions, with minority children attributing more harmful effects, true or false, to alcohol and cocaine. In addition, minority children indicated weaker intentions to use alcohol and greater negative attitudes toward cocaine. C.L.G.

FIREARM SAFETY COUNSELING

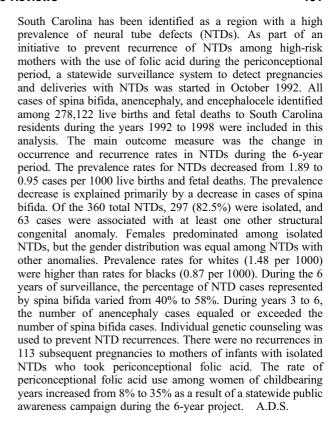
Brent DA, Baugher M, Birmaher B, Kolko DJ, Bridge J: Compliance with recommendations to remove firearms in families participating in a clinical trial for adolescent depression. J Am Acad Child Adolesc Psychiatry 39:1220, 2000. It is widely recommended that physicians advise parents of at-risk youth about the risks of the presence of a gun in the home. Depressed adolescents are a group known to be at high risk for suicide. This report shows the relatively low rate of compliance with warnings to parents of depressed adolescents who were participating in a clinical trial of depression to remove firearms from the home. Subjects were 106 adolescents (75% female), between ages 13 and 18 years, with major depressive disorder, who entered a randomized psychotherapy trial. The parents of subjects were asked systematically about firearms at home. Those who answered affirmatively were given information about the suicide risk of guns in the home and were urged to remove them. This effort to persuade the parents was repeated at each subsequent follow-up assessment. The rates of gun removal and acquisition were assessed at the end of the treatment period (after 12-16 sessions of psychotherapy) and over the subsequent 2-year naturalistic follow-up. Demographic characteristics (age, race, socioeconomic status, county, or family constellation) of those with firearms in the home at intake (n = 29) were statistically similar to those without firearms (n = 77). Of those who had guns at intake, 26.9% (7 of 26) reported removing them by the end of treatment. Parents were much more likely to remove the guns if their adolescent had made a recent suicide attempt. Upon 2-year follow-up, 9 of 25 kept guns out of the home. Information regarding firearms was available at the end of treatment for 73 of 77 families who did not have guns at home at intake. Of these 73 families, 4 acquired firearms during the treatment period. Upon 2-year follow up, 12 had acquired guns. Retention of guns was associated with urban origin, marital dissatisfaction, and paternal psychopathology. Of those who did not have guns at intake, living in a two-parent household and marital dissatisfaction were associated with gun acquisition. Families of depressed adolescents may frequently be noncompliant with recommendations to remove guns from the home despite compliance with other aspects of treatment. It is noteworthy that the researchers presented families with a single option: removal of the gun. Perhaps better compliance would have been achieved with advice about storage. Also, recommendations were usually presented to the mother of the adolescent, whereas direct communication with the gun-owning parent might have been more effective. The study also emphasizes the importance of communicating effectively about the risks of gun acquisition with families who do not have guns. A.D.S.

FOSTER CARE

Harman JS, Childs GE, Kelleher, KJ: Mental health care utilization and expenditures by children in foster care. Arch Pediatr Adolesc Med 154:1115, 2000. Children in foster care often have significant behavior problems and adaptive functioning deficits with rates far exceeding those in the general population. Most have experienced some form of abuse or neglect or suffer from issues around separation from their families. Because of this they are likely to be at greater risk for mental health problems. Although Medicaid serves as the primary source of funding for mental health services to this population, few studies have examined issues surrounding this use of Medicaid dollars. This study analyzed Medicaid claim and eligibility records in southwestern Pennsylvania for the fiscal year 1995, and included all 5- to 17-year-old children and adolescents who were continuously eligible for Medicaid during that year. The authors found that children in foster care were 3 to 10 times more likely to have a mental health problem compared with children on Aid to Families with Dependent Children (AFDC). Children in foster care were more likely than children eligible through AFDC to have been diagnosed with depression (5.9% vs 1.1%), anxiety disorder (2.5% vs 0.8%), ADHD (14.7% vs 3.9%), conduct disorder (4.5% vs 0.6%), bipolar disorder (1.0% vs 0.1%), and oppositional defiant disorder (9.4% vs 1.9%). Significantly more children in foster care (34.6%) had a mental health service compared with children eligible for Medicaid through AFDC (8.7%). Compared with children in the AFDC program, children in foster care were thus 3 to 10 times more likely to have received a mental health diagnosis, had 6.5 times more mental health claims, were 7.5 times more likely to be hospitalized for a mental health condition, and had mental health expenditures that were 11.5 times greater. Rates of use, expenditures, and prevalence of psychiatric conditions for these children in foster care were comparable with those of children with disabilities. In their conclusion, the authors suggest that these findings justify further examination of reimbursement rates for children in foster care. M.I.R.

NEURAL TUBE DEFECTS

Stevenson RE, Allen WP, Pai GS, Best R, Seaver LH, Dean J, Thompson S: Decline in prevalence of neural tube defects in a high-risk region of the United States. *Pediatrics* 106:677, 2000.



NEWBORN BEHAVIOR

Lundqvist C, Sabel K: Brief Report: The Brazelton Neonatal Behavioral Assessment Scale (NBAS) detects differences among newborn infants of optimal health. J Pediatr Psychol 25, 577, 2000. The purpose of this study was to determine whether the NBAS would detect behavioral differences in a group of healthy newborns and to determine whether differences were due to gender. A total of 38 newborns participated (20 males and 18 girls) with a mean gestational age of 39.5 weeks for girls and 39.6 for boys. Assessments took place at 48 to 72 hours of age, at the midpoint between two feedings. Gender differences were noted, with girls having higher median profiles than boys. In addition, girls had higher median values for items in the Social Interactive Organization cluster and on the self-quieting item of the State Regulation dimension. The authors suggest that the NBAS is a useful instrument. C.L.G.

OBSESSIVE-COMPULSIVE DISORDER

Nicolson R, Swedo SE, Lenane M, Bedwell J, Wudarsky M, Gochman P, Hamburger SD, Rapoport JL: An open trial of plasma exchange in childhood-onset obsessive-compulsive disorder without poststreptococcal exacerbations. *J Am Acad Child Adolesc Psychiatry* 39:1313, 2000. Poststreptococcal autoimmunity has been postulated as an etiologic factor for a subgroup of children with obsessive-compulsive disorder (OCD) or tic disorders. The term PANDAS (pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections) has been used to identify these patients. A recent study showed significant improvement in 9 of 10 patients with PANDAS following treatment with plasma exchange. Those in the placebo group showed no improvement. Of the 10 who received placebo, 8 received open trials

of plasma exchange and 7 showed improvement. In this study, 5 patients (4 boys and 1 girl), ages 7 to 18 years, with longstanding and treatment-refractory OCD underwent an open 2-week course of plasma exchange. All 5 were antistreptolysin O negative and without a history of streptococcus-related exacerbations. Behavioral ratings, completed at baseline, and 4 weeks after the initial treatment, included the Clinical Global Impressions Scale and the Yale-Brown Obsessive Compulsive Scale. All 5 patients completed the trial with few side effects, but none showed significant improvement. This is in robust contrast to the results of plasma exchange in treatment of PANDAS. The findings add to the validity of the PANDAS hypothesis. A.D.S.

TOURETTE SYNDROME

Budman CL, Bruun RD, Park KS, Lesser M, Olson M: Explosive outbursts in children with Tourette's disorder. J Am Acad Child Adolesc Psychiatry 39:1270, 2000. Sudden, explosive outbursts of behavior are reported in approximately 25% of all patients with Tourette's disorder (TD). These outbursts occur more frequently in children than adults. Among clinic-referred patients with TD, 23% to 40% report distressing behavioral symptoms characterized by sudden and unpredictable anger, irritability, temper, and aggression. Explosive outbursts in children with TD are usually accompanied by preceding feelings of increased tension and by autonomic activation. The etiology of these symptoms is not known. This study investigates the relationship between explosive outbursts, TD, and its comorbid disorders by comparing tic severity, prevalence of comorbid ADHD, oppositional defiant disorder (ODD), obsessive-compulsive disorder (OCD), and mood disorders in children with TD who either have or do not have explosive outbursts. Participants with TD were recruited from a tertiary care center and a specialty private practice. Children who were ages 6 through 16 years and had TD were included. Exclusion criteria included the presence of autism, prior head injury, psychotic illness, history of trauma or abuse, IQ less than 80, and recent change in medication. An attempt was made to match children with explosive outbursts and control subjects in the areas of age, sex, socioeconomic status, Tanner stage, and medications. Measures of tic severity and assessment for comorbid conditions were made by a research assistant who was blinded to group membership. Clinically significant explosive outbursts were defined as (1) 3 or more episodes per week of sudden uncontrollable aggressive behaviors, (2) failure to resist aggressive impulses, (3) episodes grossly out of proportion to any provocation, and (4) episodes atypical of child's baseline personality. Seventy-seven children consented, and 68 completed the study, including 37 children with and 31 control subjects without explosive outbursts. There were no significant differences between the groups in age, gender, Tanner stage, or socioeconomic status. Use of selective serotonin reuptake inhibitors (SSRIs) was higher in children with explosive outbursts than in control subjects (57% versus 23%, p < .004). There was a higher prevalence of ADHD in children with explosive outbursts than in control subjects (95% versus 65%, p < .002). Likewise, OCD was more prevalent in children with explosive outbursts than in control subjects (92%) versus 71%, p < .02). Twenty subjects met diagnostic criteria for a mood disorder, but there was no significant difference in the prevalence of mood disorder among children with explosive outbursts and control subjects. Mean tic severity in both groups was mild, and there was no difference between the groups in tic type or severity. However, the mean scores on the Yale-Brown Obsessive Compulsive Scale were higher in children with explosive outbursts than in control subjects. The study raises more questions than it answers. Most of the subjects were being treated with SSRIs to decrease obsessivecompulsive symptoms, and many subjects with explosive outbursts were probably started on SSRIs to treat such outbursts. Despite this confounder, the possibility that SSRIs are more directly related to explosive outbursts needs further study. A.D.S.

