



Psychiatry

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POSTGRADUATE EDUCATION
NEWSLETTER

DECEMBER 2002

2003 Courses

Attention Deficit Hyperactivity Disorder
Friday-Sunday, March 7-9, 2003
The Westin Copley Place, Boston

**Natural Remedies for Psychiatric Disorders:
Considering the Alternatives**
Friday-Sunday, April 25-27, 2003
The Westin Copley Place, Boston

**Psychiatry: A Comprehensive Update and
Board Preparation**
Monday-Saturday, September 15-20, 2003
The Westin Copley Place, Boston

Psychopharmacology
Thursday-Saturday, October 16-18, 2003
The Westin Copley Place, Boston

Home Study on Audio Cassettes:
Psychopharmacology
Psychiatric Neuroscience: A Primer for
Clinicians
Child and Adolescent Psychopharmacology
Psychiatry: A Comprehensive Update and Board
Preparation
Aggressive, Resistant, and Delinquent Youths:
Meeting the Treatment Challenge

FOR MORE INFORMATION:

For information about this and other courses presented by the Department of Psychiatry at MGH, please visit our web site, call, write, or email our administrative staff, at:

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Aggressive, Resistant and Delinquent Youths: Meeting the Treatment Challenge

November 14-16, 2002

COURSE DIRECTORS:

Jerrold F. Rosenbaum, M.D., Joseph Biederman, M.D., Ross W. Greene, Ph.D., and John B. Herman, M.D.

COURSE ADMINISTRATIVE STAFF:

Gail E. Dickson, M.P.A., Stephanie Lipka Hackett, Arlene Lietz and Katherine Pike, L.C.S.W.

The Massachusetts General Hospital's Department of Psychiatry, headed by Dr. Jerrold F. Rosenbaum, created this inaugural course on aggressive, resistant, and delinquent youths in response to the growing need for information on and advice about the care and management of aggressive youths. Our seasoned faculty blended their expert knowledge with a clear lecturing style and a detailed syllabus. Eighteen and one-half hours in category I credit towards the AMA Physicians Recognition Award, 18.5 continuing education credits for psychologists, and a similar number of contact hours (21.6) for the continuing education of nurses were available. The course, with its renowned faculty of clinician-researchers, presented a course designed for both clinicians and non-clinicians that wished to refine their knowledge of "state-of-the-art" practice in order to deliver the best care to patients they treat and/or deal with on a frequent basis.

Each of the approximately 300 attendees of this three-day curriculum (held at the Fairmont Copley Plaza Hotel, Boston, MA, 02116) received a comprehensive syllabus, which contained an outline of each lecture, a printout of slides presented, and reprints of key references.



Here are some facts from the MGH's **Aggressive, Resistant, and Delinquent Youths: Meeting the Treatment Challenge** course:

OVERVIEW OF OPPOSITIONAL AND CONDUCT DISORDERS

Ross W. Greene, Ph.D.

- Oppositional defiant disorder (ODD) refers to a recurrent pattern of developmentally inappropriate levels of negativistic, defiant, disobedient, and hostile behavior towards authority figures.
- The behaviors associated with ODD include actively defying or refusing to comply with adult rules and requests, deliberately or persistently testing limits, frequent temper outbursts, persistent stubbornness, and excessive arguing
- Behaviors associated with ODD can significantly impede adaptive adult-child and child-peer interactions
- Behaviors of ODD typically co-exist with low self-esteem, mood lability, low frustration tolerance, and swearing.
- ODD precedes conduct disorder (CD) in a substantial percentage of cases.
- ODD youth with or without CD have higher rates of Attention Deficit Hyperactivity Disorder (ADHD), Major Depressive Disorder (MDD), Bipolar Disorder (BPD), and anxiety disorders than those without ODD.
- ODD, ADHD, and MDD are significant predictors of social problems at school; CD, and age are important factors.
- The diagnosis of ODD is associated with higher rates of co-morbid disorders, greater social impairment, and greater family dysfunction when compared with clinically referred youth with neither ODD nor CD.
- ODD is a highly heterogeneous disorder with varied presentations, likely caused by disparate and complex pathways.
- Children with ODD might benefit from training aimed at teaching and refining cognitive skills critical to modulating affective arousal in the midst of frustration, recognizing and labeling affective states, articulating what one is frustrated about, problem-solving, linking feelings and actions, delaying gratification, and negotiating and resolving interpersonal conflict.

TEMPERAMENT AND EARLY PREDICTORS OF DEFIANT BEHAVIOR

Cynthia A. Stifter, Ph.D.

- Chess, Thomas, and Birch introduced the concept of temperament in 1968; it was based on their longitudinal study of infant behavior as observed by parental reports.
- Temperaments can be clustered into several constellations: easy, slow-to-warm, and difficult.
- Constitutional differences in reactivity and self-regulation account for temperament, which is influenced over time by heredity, maturation, and experience.
- Negative emotions (e.g., fear/withdrawal and anger/frustration) have a variety of precipitants; they are often considered to reflect the child-parent dynamic.
- Temperament may either heighten or buffer an individual's response to a given event.
- Emotions, e.g., anger, occur with great frequency in infants; they afford the opportunity to practice regulatory behaviors and the chance for parents to teach and to support an infant's regulatory skills.
- Although temperament is believed to be a relatively stable characteristic, regulatory skills can be developed to influence changes in behavior and expression.
- Thomas, Chess, and co-workers characterized difficult temperament by irregular biological functioning, by an initial aversion to environmental change, by slow or low adaptability to environmental change, by high intensity of affective expression, and by negative mood.
- Temperament can be determined in several ways: by parental report, by home observation, and by laboratory assessment; each has advantages and disadvantages (related to accuracy, bias, reliability, and cost).
- Whereas colic (which is a transient condition) manifests itself as long, intense bouts of crying, difficult temperament as usually defined as frequent bouts of fussiness.
- Difficult temperament taxes the parental environment and leads to stressful interactions and negative perceptions.



PATHWAYS TO CONDUCT PROBLEMS

Daniel Shaw, Ph.D.

- Observations of behavior in a variety of contexts (e.g., home, laboratory, school, and summer camp) by others (e.g., family member or teacher) supplemented by questionnaires and psychological tests can help to establish the presence of behavior problems.
- Factors that may be involved include maternal unresponsiveness, maternal rejection, sibling relationship, noncompliance, and the externalization of problems.
- Factors that compromise effective parenting and the persistence of conduct problems include maternal domination and reduced social support.
- According to attachment theory, parents must meet an infant's need in a sensitive and responsive manner; these goals are less likely to be met if the infant is highly irritable and the mother is unable to respond in a sensitive manner.

CALLOUS-UNEMOTIONAL TRAITS AND DEVELOPMENTAL PATHWAYS TO SEVERE CONDUCT PROBLEMS IN YOUTH

Paul J. Frick, Ph.D.

- Before the age of 6, behaviors associated with CD include being stubborn, non-compliant, argumentative, and annoying, as well as having temper tantrums and defying adults.
- Between the ages of 7 and 10, CD is often manifest by lies, physical fights, cruelty to animals, rule breaking, and by bullying others.
- Between the ages of 11 and 24, cruelty to others, stealing, truancy, criminal behaviors (e.g., breaking and entering), and running away from home are prominent in those with CD.
- Childhood-onset CD is often marked by family dysfunction, deficits in verbal intelligence and social cognition, with poor response inhibition, and with an association with deviant peer groups.
- Adolescent-onset CD is manifest by high levels of rebelliousness, by rejection of traditional values and status hierarchy, and by association with a deviant peer group.
- Psychopaths typically manifest a superficial charm, insincerity, untruthfulness, a lack of remorse or shame,

unreliability, pathological egocentricity, and an incapacity for love.

- Psychopathic traits are associated with a greater number and variety of criminal offenses (especially those that are violent and aggressive).

NEUROPSYCHOLOGICAL CORRELATES OF OPPOSITIONAL BEHAVIOR

Alysa Doyle, Ph.D.

- Most youths with CD commit illegal acts.
- CD that begins early on is associated with aggression and with persistence of antisocial behavior into adulthood.
- The younger one is at the first arrest, the greater the likelihood that one will be a repeat offender and continue to commit crimes into adulthood.
- Both early-onset delinquency and CD appear associated with ADHD.
- Executive function allows for inhibition of responses, shifting sets, abstract reasoning, organization, planning, and working memory.
- The inability to inhibit a response can lead to calling out of answers in class when one is supposed to raise one's hand.
- The Wisconsin Card Sorting Test (WCST) tests for cognitive flexibility and the ability to shift sets.
- Executive function deficits may be directly related to conduct problems and be associated with school failure.
- Verbal abilities can be assessed via IQ tests.
- Children with ADHD qualify for special education services under the Individuals with Disability Education Act (IDEA) or section 504 of the Rehabilitation Act of 1973 if their ADHD impairs educational performance and learning.
- When executive functions are impaired, parents and teachers can act as "surrogate frontal lobes" by providing structured classrooms and assignments, by anticipating transitions, by testing in a quiet room, by providing reminders to stay on a task, and by sitting close to the teacher and away from distractions.
- Study skills can be facilitated (e.g., having an assignment notebook, creating study strategies, and breaking large assignments into smaller components).



BRAIN IMAGING OF DISRUPTIVE, MOOD, AND PSYCHOTIC DISORDERS

Jean Frazier, M.D.

- Neuromodulatory hormones have permanent organizational (hard-wired) effects and acute reversible (activational) effects on the brain.
- Gonadal steroids act at the time of birth to organize and direct which tissues will be steroid responsive; later in life these hormones activate behavioral patterns.
- Testosterone has been linked with aggression.
- Brain development is adversely affected by poor nutrition, by maternal rejection, illness, by exposure to violence or toxins, by genetic conditions, by unstable families, by peri-natal trauma, by head injury, and by seizures.
- Symptoms associated with aggression include inattention, impulsivity, fear and anxiety, low intelligence, concrete thinking, and an inability to modulate affect.
- Psychiatric disorders associated with aggression include mental retardation, PTSD, OCD, Tourette's disorder, SUD, neuropsychological disorders, psychosis, MDD, BPD, and ADHD.
- Aggression associated with attention dysregulation tends to have decreased serotonin levels and increased noradrenergic and dopaminergic activity.
- Predatory aggression is associated with cholinergic activity.

AGGRESSIVE DISORDERS AND SUBSTANCE ABUSE DISORDERS

Timothy E. Wilens, M.D.

- Substance abuse requires a pattern of misuse of a drug, with impairment and/or adverse consequences.
- Substance dependence involves a pervasive pattern of misuse, with associated impairment, inability to control use, use despite consequences, and physiological symptoms (i.e., withdrawal).
- The prevalence of psychopathology and dysfunction is higher in children of parents with substance use disorders (SUD) than it is in non-substance-abusing parents.
- Risk factors for SUD include peer pressure, drug availability, a disregard for social values, and having friends who use drugs.

- Poor self-esteem and poor academic achievement are linked to later SUD.
- 70%-90% of juveniles with SUD have co-morbid psychopathology.
- The disorder in childhood most strongly linked to SUD is CD (it occurs in 80%-90%); CD precedes SUD most of the time.
- Presence of CD lowers the age at which SUD develops.
- Up to 80% of substance-abusing adolescents meet criteria for ODD.
- Among adolescents with SUD, 30%-40% has MDD, 40%-50% has dysthymia, and 10%-20% has both MDD and dysthymia.
- Roughly 10%-30% of adults have had ADHD as children have a SUD.
- Rates of alcoholism and antisocial personality disorder (ASPD) are high in parents of children with ADHD.
- Non-pharmacological treatment of SUD relies on early identification, psychoeducation, increased supervision and monitoring by parents, support groups, and psychotherapy.
- Sons of male alcoholics are nine times as likely to develop substance abuse as are sons of non-alcoholics.
- Effective treatment of ADHD reduces the risk of substance abuse by one-half.

TOWARD DEFINING A DYSPHORIC SUBTYPE OF CONDUCT DISORDER

Joseph Biederman, M.D.

- Conduct Disorder (CD) is strongly associated with Bipolar Disorder (BPD), in studies of CD, ADHD, and mania in children.
- CD occurs in 69% of youth with BPD.
- When CD and BPD co-exist, the course of mania is more complicated.
- Juveniles with mania may be particularly explosive; they tend to have more trouble with the law and to have more "psychotic assaultiveness" than do adults with mania.
- Unlike the predatory aggression seen in children with CD, aggressive symptoms in manic children may respond to mood stabilizers.



- It is likely that many children with CD and severe aggressivity in psychiatric hospitals are there because of manic symptoms.
- The distinction between dysphoric and non-dysphoric CD may be clinically meaningful.

MULTISYSTEMIC THERAPY

Scott W. Henggeler, Ph.D.

- Multisystemic Therapy (MST) is an intense family and community-based treatment for adolescents (who engage in willful misconduct that places them at risk for out-of-home placement).
- MST has a license with the Medical University of South Carolina for transport of MST technology and intellectual property.
- More than 200 MST teams in North America and Europe treat > 7,000 serious juvenile offenders each year.
- Three randomized trials with violent and chronic juvenile offenders have shown decreases in recidivism (25%-70%), self-reported criminal offenses, out-of-home placement (47%-64%), and behavior problems, as well as cost savings.
- Two MST substance-related trials have reported less self-reported substance use and fewer drug-related arrests at 4-year follow-up.
- Preliminary MST outcomes from drug-related court trials have shown fewer positive screens, reported crimes, days in any placement, and less self-reported alcohol use.
- MST outcomes associated with adolescent sexual offenders showed fewer re-arrests.
- MST addresses risk factors across the social ecology and builds protective factors across the social ecology.
- MST treatment principles include understanding the fit between identified problems and their systemic context, emphasizing the positive as leverage for change, increasing a sense of responsibility, using present-oriented and action-oriented interventions, targeting sequences of behavior, creating developmentally appropriate steps, applying continuous efforts, including accountability and promoting treatment generalizations.
- Each therapist works with 4-5 families in MST and the treatment is time-limited.

DEFIANT CHILDREN: A PARENT MANAGEMENT TRAINING PROGRAM

Gwenyth Edwards, Ph.D.

- Psychostimulants are effective for the reduction of ADHD symptoms.
- Since ADHD disrupts family function, parent training is effective for reduction of deviant behaviors that often accompany ADHD.
- High levels of stress, depression, and marital discord are found in parents of children with ADHD.
- Parent training programs cover the value of positive reinforcement, the use of response cost and time out, and how to use the program in public places.
- Didactic counseling covers how ADHD affects the identified child at home and with friends.
- Both parent training and didactic counseling are effective in ADHD.

COLLABORATIVE PROBLEM SOLVING (CPS) APPROACH

Ross W. Greene, Ph.D.

- The Collaborative Problem Solving (CPS) approach helps adults understand specific pathways that compromise a child's emotional regulation, frustration tolerance, and adaptability skills.
- CPS helps one understand adult-child incompatibilities that contribute to oppositional behavior.
- CPS helps adults become aware of strategies to handle unmet expectations, including the imposition of adult will, CPS, and removal of the expectation.

VIOLENCE PREVENTION IN SCHOOLS

Tony Wagner, Ed.D.

- So-called alternative schools segregate problem students but rarely give them the skills needed to succeed as adults.
- Strict disciplinary policies may temporarily inhibit aggressive students' behavior, but they ultimately increase anger.
- There are no apparent warning signs for some violent acts committed by students.
- All students are under increased pressure to achieve.



- Students need to learn how to communicate, analyze, problem-solve, and work collaboratively.
- Students tend to believe less in delayed gratification and the concept that work equals success.
- Students spend as much time alone as with peers and < 5% of their time is spent with parents.
- Student achievement and good behavior is influenced by teachers that know their students well, by a curriculum that is intellectually challenging and engaging, having students research and write about topics of interest, by service-based learning and internships, by advisors who create a sense of extended family, by frequent teacher/parent/student conferences, and by schools that create a safe and respectful environment.

BUILDING COMMUNITY IN GENERAL EDUCATION CLASSROOMS

Laura Baker, Ph.D.

- Regular communication can be facilitated by use of message boards, weekly bulletins, and letters to staff.
- Problem-solving and conflict resolution skills can be taught (e.g., mediation, creation of planning worksheets, and establishment of team meetings).
- Traditions can be established (e.g., by camping trips, celebration of holidays, and community potluck dinners) to build a sense of community.

EFFECTIVE HANDLING OF AGGRESSIVE STUDENTS IN GENERAL AND ALTERNATIVE SETTINGS

Jeff Q. Bostic, M.D., Ed. D.

- Principles of the STRETCH paradigm (Structuring, RElating, Teaching, Coping, Habilitation) were reviewed.
- Low levels of violence are associated with consistent policies, a relevant curriculum, accessible teachers, strong administrators, and students that have some control over school experiences.
- Buy-in from students helps control behavior.
- Collaboration on problem areas facilitates coping (e.g., "Completing assignments has been hard for you. How shall we make that better?").
- Coping with aggressive impulses may involve use of the "turtle technique;" sit down, put your head on your arms, relax, and think of non-aggressive options.

- Thinking out loud about the nature of the problem, the possible options, and the outcome of the interventions attempted helps one cope.
- Ignore social cues that promote aggressivity.
- Training students to be and act empathetically improves behavior.
- Teaching students to label their behaviors helps them to generate effective solutions.

PARENT MANAGEMENT TRAINING

Gwenyth Edwards, Ph.D.

- Noncompliance is an extremely common reason for referral that is correlated with other conduct problems.
- Noncompliance occurs hundreds of times each week; it serves as a major source of family distress and it generalizes to multiple tasks and settings.
- Noncompliance precludes satisfactory socialization and is a strong predictor of poor outcomes (e.g., school underachievement, poor peer relations, delinquency, MDD, substance abuse, school expulsion, and unemployment as an adult).
- Those with ODD often lose their temper, argue with adults, defy rules, deliberately annoy others, and are angry, spiteful, and vindictive.
- Predictors of CD and delinquency include poor supervision, affiliation with deviant peer groups, low parental involvement, parent criminality or ASPD, poor parental health, low socioeconomic status, and marital problems.
- Defiance is associated with negative child temperament and ADHD, negative parent temperament, ineffective child management, and parent and family stress.
- Parent training relies upon the use of immediate, frequent, and salient consequences, consistency, management from the head (not the gut), application of rewards before punishment (i.e, talk less, touch more), being proactive and anticipating problems, and practicing forgiveness.
- Steps to better behavior include knowing why children misbehave, paying attention, increasing compliance and independent play, using tokens and points when praise is not enough, and using time-outs.



PSYCHOPHARMACOLOGY

Jefferson B. Prince, M.D.

- Roughly 16% of girls and 11% of boys report having attempted suicide within the past year.
- One in ten public schools report at least one serious violent incident a year.
- Nearly 10% of students report carrying a weapon onto school property.
- Aggression may be impulsive (associated with disinhibition, anger, fear, or affective instability) or non-impulsive (i.e., it is goal-oriented and is associated with a low level of arousal).
- A variety of clinical syndromes are associated with aggression and impulsivity (e.g., BPD, ADHD, ODD, SUD, psychosis, Tourette's syndrome, OCD, panic disorder, PTSD, MDD, and personality disorders).
- Psychostimulants, as well as TCAs and alpha-adrenergic blockers, help reduce aggressivity in ADHD and CD; anticonvulsants and lithium may also decrease this behavior in patients with CD.
- Benzodiazepines may decrease aggression secondary to anxiety but they can also lead to disinhibition.
- A variety of organic syndromes (e.g., epilepsy and intermittent explosive disorder) are associated with aggression.
- Treatment of aggression in children relies upon proper diagnosis.

AGGRESSION IN ASPERGER'S AND RELATED DISORDERS

Daniel Rosenn, M.D.

- In general, in Asperger's syndrome, the more confrontative the disciplinary strategy the greater the escalation of the conflict.
- Sensory overload, anxiety, and neurocognitive distortions frequently cause aggression in Asperger's syndrome.
- Manifestations of Asperger's syndrome include faulty hand-eye coordination, speech and language problems, social difficulties, and neurocognitive impairments.
- Problems with motor development (i.e., with clumsiness, faulty hand-eye coordination, finger flicking, pacing, twirling, and jumping in place) and sensory integration

problems (e.g., hyperacusis, tactile defensiveness, peculiarities of taste/olfaction, pain and temperature misperceptions, and narrow food preferences) occur in Asperger's syndrome.

- Individuals with Asperger's syndrome often use third person references, echolalia, long-winded monologues, and are concrete and literal; they have trouble taking turns with words and they have difficulty with pitch and volume.
- Eye contact is poor in individuals with Asperger's syndrome.
- Those with Asperger's syndrome often have intense interests in obscure things.
- Those with Asperger's syndrome prefer structure and familiarity; they often over-focus on detail and are inattentive to the obvious.
- To prevent aggression in Asperger's patients, be aware of high-risk situations, provide structure and routine, have zero tolerance for bullying, and reduce anxiety.

AGGRESSION IN PEDIATRIC BIPOLAR DISORDER

Janet Wozniak, M.D.

- 10%-30% of those with BPD present as adolescents; many are misdiagnosed for years.
- Delay in diagnosis of mania may lead to kindling and a chronic, treatment-resistant course.
- Symptoms of ADHD and mania overlap (e.g., distractibility, hyperactivity, and talkativeness); however, ADHD does not have a mood component.
- Children with mania often present with affective storms or prolonged and aggressive temper outbursts and threatening behavior.
- Pediatric-onset BPD may include irritability (with a child acting grouchy, disrespectful, or threatening), explosive, giddy, (or having laughing fits, or being silly) or depression.
- Childhood-onset mania is associated with high rates of depression and psychosis, a family history of mania, poor global functioning, and school failure.
- Atypical antipsychotics may be uniquely suited for anti-manic treatment of childhood mania because of their benign side effect profile.



REDUCING RESTRAINT AND SECLUSION ON AN INPATIENT PSYCHIATRY UNIT

Bruce Hassuk, M.D.

Dr. Bruce Hassuk and Kathleen Regan, R.N. presented the Cambridge Hospital QA/QI initiative on seclusion and restraints. Their efforts were prompted by leadership changes and a restraint and seclusion rate that was twice the state average. Morale had been low and distrust of management was high.

- Change was facilitated by provision of administrative support, training of staff, and ongoing supervision.
- The team prepared for change and attended to the needs of the staff; cultural shifts were required.

LEGAL ISSUES AND IMPLICATIONS FOR THE JUVENILE JUSTICE SYSTEM

Judith G. Edersheim, J.D., M.D.

- Most adolescent violence emerges in a social or group context.
- Most adolescents do not continue offending after their adolescence.
- The seriousness of past offenses is not predictive of future violence.
- Future violence is predicted by a history of violent behavior, the onset of persisting aggression in preschool, gang involvement, and ready access to weapons.

- Predictors of violence also include witnessing violence, poverty, social dislocation, domestic violence, child abuse or neglect, marital discord, inadequate parenting, parental criminality, poor academic achievement, truancy, early exposure to violence, insecure attachments, chronic irritability, impulsivity, and drug use (e.g., stimulants and alcohol).
- Factors protective against aggressivity include involvement with pro-social peers, strong family/social supports, positive attitudes about authority, strong interpersonal attachments, and a commitment to school and academic achievement.
- The law presumes that minors are incompetent and parents or guardians must give consent for treatment.
- All communications between patients and their social worker, psychologist, psychiatrist, marriage counselor, and other mental health professional (MHP) must be kept confidential.
- Parents are entitled to know the content of therapy and control disclosure of those communications to third parties.
- MHPs have the duty to breach confidentiality of the patient if the child has a medical condition so serious that life or limb is endangered, or if there is child abuse or neglect, elder abuse, abuse of persons with disabilities, or to protect a third party.
- In almost every state there is a psychotherapist-patient privilege which grants the patient the right to prevent a therapist from testifying about the content of therapy; however, exceptions exist.