

## **Mental Health Disorders**

Sometimes psychiatric disorders may present as medical problems. Examples include anxiety disorder with a panic attack that presents with hyperventilation, tachycardia, diaphoresis, and chest pain-suggesting a cardiac problem. Children with emotional or behavioral conditions may present with high anxiety levels and may have difficulties coping. A child with a history of mental illness may present with situational or physical problems unrelated to the psychiatric history.

Additionally, although many behavioral emergencies are precipitated by purely psychiatric or medical decompensation, they may also be exacerbated by social and cultural factors, such as family dynamics or instability in the home, in the local community, and in living conditions. Indeed, psychiatric and environmental factors can play off each other to precipitate a crisis or to exacerbate an ongoing crisis.

Major psychiatric disorders that may predispose to behavioral emergencies in children include mood disorders (e.g., depression, bipolar disorder); thought disorders (e.g., schizophrenia); developmental disorders (e.g., autism); anxiety disorders (e.g., posttraumatic stress disorder); and other disorders such as attention deficit hyperactivity disorder and reactive attachment disorder.

### **Bipolar Disorder**

Also called manic-depressive illness, bipolar disorder is often misdiagnosed and undertreated in children.

#### **Characteristics**

- ☐ Extreme swings in mood
- ☐ Rapid cycling, with many mood changes in short intervals in children
- ☐ Oppositional and defiant behavior
- ☐ Anger and aggressive behavior

#### **Mood Stabilizers Used To Treat Bipolar Disorder**

- ☐ Cibalith-S, Eskalith, Lithane, Lithobid (lithium carbonate)
- ☐ Tegretol (carbamazepine)
- ☐ Depacote (divalproex)
- ☐ Lamictal (lamotrigine)
- ☐ Other anticonvulsants on an off-label basis [e.g., drugs such as Risperdal (risperidone), Zyprexa (olanzapine), Seroquel (quetiapine), Abilify (aripiprazole), and Geodon (ziprasidone) that are not FDA approved for children but are nonetheless prescribed for them]
- ☐ New generation antipsychotics: Abilify (aripiprazole) and Zyprexa (olanzapine)
- ☐ Death caused by overdose

### **Autism Spectrum Disorders (ASDs)**

Two ASDs are autism and Asperger's syndrome, complex developmental disorders that become evident in the first three years of life.

#### **Characteristics of Autism**

- ☐ Impaired verbal and nonverbal communication
- ☐ Impaired social interactions
- ☐ Restricted and repetitive behaviors

#### **Characteristics of Asperger's**

- ☐ Impaired social interactions
- ☐ Restricted, repetitive patterns of behavior, interests, and activities
- ☐ Impaired subtleties and social aspects of language

There is no single, established treatment for autism. Instead, treatment is tailored to a child's individual behaviors and needs. Children learn to function within the confines of their disability. Medications such as antidepressants, stimulants, and antipsychotics are used to manage the symptoms of associated disorders, which include attention deficit, hyperactivity, obsessions, compulsions, tics, irritability, seizures, and depression.

### **Attention Deficit Hyperactivity Disorder (ADHD)**

#### **Subtypes of ADHD**

- ☐ Hyperactive
- ☐ Inattentive
- ☐ Mixed (inattentive-hyperactive)

#### **Characteristics of ADHD**

- ☐ Language impairment
- ☐ Restricted activities and interests
- ☐ Social impairment

#### **ADHD Medications**

- ☐ Stimulants like Ritalin (methylphenidate) or nonstimulants like Strattera (atomoxetine), both often used

in conjunction with medications below

- ☐ Catapres (clonidine)
- ☐ Dysyrel (trazadone)
- ☐ Risperdal (risperidone)

Nervousness and insomnia are the most common adverse reactions of stimulants.

### **Schizophrenia**

Schizophrenia is a type of psychosis that usually begins in late adolescence or early adulthood.

#### **Characteristics of Schizophrenia**

- ☐ Hallucinations
- ☐ Delusions
- ☐ Violent behavior
- ☐ Flat affect
- ☐ Disorganized speech and behavior

## **Drugs Used To Treat Schizophrenia**

- ☐ Conventional antipsychotics
- ☐ Thorazine (chlorpromazine)
- ☐ Haldol (haloperidol)
- ☐ Serentil (mesoridazine)
- ☐ New generation antipsychotics
- ☐ Geodin (ziprasidone)
- ☐ Abilify (aripiprazole)
- ☐ Atypical antipsychotics
- ☐ Risperidone (risperidol), no sedation or muscular side effects
- ☐ Seroquel (quetiapine), sedation, least likely to produce muscular side effects
- ☐ Zyprexa (olanzapine), weight gain
- ☐ Clozapine (clozapine), most effective, most side effects

## **Depression**

### **Characteristics**

- ☐ Major depressive episodes
- ☐ Depressed mood lasting all day, nearly every day
- ☐ Diminished interest in pleasure and daily activities
- ☐ Significant weight change
- ☐ Insomnia or hypersomnia
- ☐ Psychomotor agitation or retardation
- ☐ Feelings of worthlessness or excessive guilt
- ☐ Diminished ability to think; indecisiveness
- ☐ Recurrent thoughts of death

### **Drugs Used to Treat Depression**

- ☐ Selective serotonin reuptake inhibitors (SSRIs): Prozac (fluoxetine); Paxil (paroxetine); Luvox (fluvoxamine); Zoloft (sertraline), Celexa (citalopram), Lexapro (escitalopram oxalate)
- ☐ Tricyclic antidepressants: Tofranil (imipramine); Anafranil (clomipramine)
- ☐ Monoamine oxidase inhibitors (MAOIs): Anipryl (selegiline)
- ☐ Heterocyclic antidepressants: Serzone (nefazodone); Wellbutrin (bupropion HCL)
- ☐ New generation antidepressants: Remeron (mirtazapine); Cymbalta (duloxetine hydrochloride)
- ☐ Miscellaneous: Effexor (venlafaxine)

Changes in the understanding of many psychiatric illnesses and in their management options promote a sense of uncertainty for families. Each child responds differently to psychiatric medications. Unlike children who have more acute conditions, children with chronic psychiatric conditions may not return to “baseline” or “just get better” following a crisis.

## **Handling a Behavioral Emergency: Scene Response**

Although an understanding of specific disorders and medications is important, responders should not try to diagnose psychiatric disorders in the field. On-scene definitive diagnosis and treatment of patients is not part of fire responder policies. Fire responders should conduct an assessment and manage patients using relevant EMS policies and accepted interventions.

Safety is the most important issue at the scene, as the case scenario illustrates. When evaluating a psychiatric patient for danger to self or others, the provider should gather information from the history and initial physical exam or survey. In a situation in which the patient is in the act of attempting or has attempted or is threatening suicide, evaluation is difficult.

### **Scene Size-Up**

- ☐ Ensure personal safety.
- ☐ Perform initial assessment.
- ☐ Suspect life-threatening emergencies.
- ☐ Assess and manage ABCs.
- ☐ Assess posturing, hand gestures, and signs of aggression.
- ☐ Observe the patient's awareness, orientation, cognitive abilities, and affect.
- ☐ Consider the patient's and family's emotional state.
- ☐ Control the scene.

### **Focused History and Physical Exam**

- ☐ Identify yourself.
- ☐ Obtain the patient's history; listen to the child and family members.
- ☐ Act assured and comfortable; maintain eye contact.
- ☐ Do not threaten; remain calm and speak slowly.
- ☐ Do not fear silence.
- ☐ Avoid separating young children from their parents.
- ☐ Encourage children to help with their own care.
- ☐ Prevent children from seeing violence or medical procedures that will increase their distress.
- ☐ Keep a safe and proper distance; limit physical touch.
- ☐ Avoid judgmental statements.
- ☐ Respond honestly; keep explanations brief and simple.
- ☐ Reassure children by carrying out all interventions gently.
- ☐ Do not discourage children from crying or showing emotion.
- ☐ Do not leave children alone; allow them to keep a favorite toy or blanket.
- ☐ Dim the lights; remove nonfamily members.
- ☐ Introduce the person who will assume care of the children if you need to be separated from them.

### **Psychiatric Medications**

- ☐ Determine presence and type; note count, prescribed amount, dose, and prescription date.
- ☐ Evaluate medication compliance.
- ☐ Identify the treating mental health professional.

### **Special Considerations: Suicide**

- ☐ Assess potentially suicidal patients.
- ☐ Document observations about the scene that may be valuable to mental health professionals.
- ☐ Document any notes, plans, or statements made by the patient.

- ☐ Treat traumatic or medical complaints.

### **Questions To Assist in Identifying Potential Violence and Suicide**

- ☐ Is the room or apartment in a high-rise where the patient may have attempted or thought about jumping out of a window?
- ☐ Are there any noticeable empty pill bottles?
- ☐ Are there any knives, ropes, guns, or other objects present that may have just been used to attempt suicide?
- ☐ Is the patient bleeding from any site, especially from the wrists?
- ☐ Are there any rope marks around the patient's neck?
- ☐ Are there any scars at the wrists, neck, or head that suggest the patient may have made a suicide attempt or tried to hurt himself in the past?
- ☐ Has your assessment included whether the patient presents a danger to himself?
- ☐ Have you assessed for injury to other family members?

### **Suicide Treatment and General Management**

- ☐ Ensure scene safety and BSI precautions.
- ☐ Provide a supportive and calm environment.
- ☐ Treat any existing medical conditions.
- ☐ Do not allow the suicidal patient to be alone.
- ☐ Do not confront or argue with the patient.
- ☐ Provide realistic reassurance.
- ☐ Respond to the patient simply and directly.
- ☐ Transport the patient to an appropriate receiving facility.

(Note: The above sections, beginning with "Scene Size-Up," were adapted from a training presentation by Bryan Bledsoe, Robert Porter, and Richard Cherry.)

### **Medical and Legal Issues: Abuse, Violence, Consent, and Restraints**

The medical and legal aspects of emergency medical care become more complicated when the patient is undergoing a behavioral emergency. Gaining the patient's confidence is critical. A patient who is mentally unstable may resist a provider's attempts to render care. If providers are not sure whether a life-threatening emergency exists, they should request assistance from law enforcement. In many jurisdictions, restraint(s) must be ordered by a physician, court, or law enforcement officer. Restraints may be used to protect the responder or others from bodily harm or to prevent the patient from causing injury to himself. Although abuse or neglect must always be considered, it is important not to make assumptions. If providers have a concern about possible abuse, neglect, or reverse abuse, they should notify law enforcement officers. Providers are legally obligated to call child protective authorities or police if they suspect abuse.

### **Addressing the Needs of the Family and Child in Crisis**

EMS can assist and advocate for the child and the family during a behavioral emergency. The family of a child with behavioral emergencies lives in fear of restraints, hospitalizations, and false accusations. Understanding the emotional fatigue, physical exhaustion, and chronic life

disruptions of families in crisis is integral to addressing their needs. Families of children with psychiatric or severe behavioral disorders often have competing fears: the fear of a violent outburst by the child toward the family vs. the fear of the violence that may occur if the child needs to be restrained by the police or EMS providers. These families often do not want to tell others-including other family members, friends, or neighbors-of their child's psychiatric or behavioral disorder. Isolation, secrecy, fear, and stigma are a major fact of life for families raising children with mental health needs. Families may have limited financial, social, and emotional resources that have been stretched beyond their capabilities. These factors may contribute to the crisis at hand.

Children with psychiatric conditions, such as bipolar disorder, may not maintain normal social boundaries and may not respond to traditional behavioral methods or discipline. Cultural differences take on an even larger role in behavioral emergencies. Providers should not judge or subjectively interpret the patient's actions. When possible, and with the agreement and assistance of the family, responders should make appropriate contact with the child's mental health provider, who may greatly assist the responder, the child, and the family.

### **Case Study Continued**

The responders call the psychiatrist and receive information on the medications. They sit with their young patient, develop a rapport, and communicate with him. The child's behavior improves and stabilizes. The rapid mood cycles lessen, and restraints are not needed. The police leave the scene.

### **Implications for the Future**

EMS personnel should be prepared to address the needs of the pediatric population with psychiatric or behavioral crises. To be prepared for such emergencies, EMS responders should be familiar with mental health resources, have access to appropriate personnel and consultants, and have a basic knowledge of psychiatric conditions. To address the challenges that behavioral emergencies present, Alameda County Emergency Medical Services Agency in California is conducting a unique "Behavioral Emergency" training campaign targeted at fire responders. The training includes the participation of a family who has experienced a pediatric behavioral crisis. The curriculum focuses on initial assessment, relevant EMS policies, accepted interventions, and on scene decision making. Attendees share personal and professional experiences to address the gaps in field policy. A family "eyewitness" highlights the social and emotional issues.

Emergency Medical Services for Children (EMSC) and fire departments should fully integrate pediatric behavioral emergency prevention, planning, training, and response. Few training opportunities related to the specific needs of children with psychiatric disorders, behavioral disorders, or developmental disabilities exist for EMS responders. This limited exposure may put the children with such problems and the responders at risk. If first responders receive proper training and plans to assist children predisposed to behavioral emergencies, they will be more competent in providing care during behavioral emergencies. EMS policies should be expanded to allow first responders to work with the mental health community and to function as resources for families in crisis. Protocols should allow first responders to obtain direction and

orders from a base facility or from a recognized mental health provider so that the responders can approach patients and families in crisis as caregivers as well as rescuers.

The authors gratefully acknowledge the following experts who read earlier versions of this article and made suggestions: Jon Berlin, MD, assistant professor, Medical College of Wisconsin, immediate past president of the American Association of Emergency Psychiatry; Zach Goldfarb, EMT-P, CHSP, CEM, principal of Incident Management Solutions, Inc., a New York-based consulting firm; Robert Nixon, manager of clinical and educational services, American Medical Response; and James Pointer, MD, EMS medical director, Alameda County Emergency Medical Services, San Leandro, California.

#### RESOURCES FOR FAMILIES AND RESPONDERS

American Academy of Child & Adolescent Psychiatry

[www.aacap.org](http://www.aacap.org)

American Academy of Pediatrics

[www.aap.org](http://www.aap.org)

Depression and Bipolar Support Alliance

[www.dbsalliance.org](http://www.dbsalliance.org)

Child and Adolescent Bipolar Foundation (CABPF)

[www.bpkids.org](http://www.bpkids.org)

National Alliance for Mental Illness (NAMI)

[www.nami.org](http://www.nami.org)

National Emergency Medical Services for Children

[www.ems-c.org](http://www.ems-c.org)

National Organization on Disability

[www.nod.org](http://www.nod.org)

Nick Traina Foundation

[www.NickTrainaFoundation.org](http://www.NickTrainaFoundation.org)

#### REFERENCES

Allen, MA, GW Currier, D Carpenter, R Ross, and JP Docherty, "The Expert Consensus Guideline Series: Treatment of Behavioral Emergencies," *J Psychiatr Pract* 2005;11(Suppl 1):1-108.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR*, 4th ed., 2005.

Berlin, Jon, MD. "Approaching the Agitated Patient in the Emergency Setting." *Psychiatric Issues in Emergency Care Settings*, Cliggett Publishing Group, 3:1, July 2004.

Bledsoe, Bryan, Robert Porter, and Richard Cherry. Instructor's Resource Manual - Essentials of Paramedic Care, Chapter 38. *Psychiatric and Behavioral Disorders, 785-805 and PowerPoint®* supplement.

Coker, Neil. "Behavior Disorders," PowerPoint® Presentations, EMS Department, Temple College, Texas.

Frankel, Cynthia, Elizabeth Davis, and Anthony Ng. "The Unseen Vulnerable Children in Disasters: A New Challenge for Emergency Managers." American Society of Professional Emergency Planners (ASPEP), 2003.

Parker, MD, "EMS Evaluation of Psychiatric Emergencies," Temple University, Texas.

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