Glossary of Terms

Accommodations –adaptations to presentation or setting that can typically and easily occur in general education – they do not involve modifying the material content but do allow students to receive information in a more effective manner.

Assistive Technology Device – any item, piece of equipment, or product system whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain or improve the functional capabilities of a person with a disability.

Assistive Technology Service - any service that directly assists a child with a disability in the selection, acquisition or use of an assistive technology device.

Attention Deficit Disorder (ADD) – a severe difficulty in focusing and maintaining attention; often leads to learning and behavior problems at home, school, and work; also called Attention Deficit Hyperactivity Disorder (ADHD).

Autism (Autism Society of America Home Page)

Autism is a complex developmental disability that typically appears during the first three years of life. The result of neurological disorder that affects the functioning of the brain, autism and its associated behaviors have been estimated to occur in as many as 1 in 500 individuals (Centers for Disease Control and Prevention 1997). Autism is four times more prevalent in boys than girls and knows no racial, ethnic, or social boundaries. Family income, lifestyle, and educational levels do not affect the chance of autism's occurrence.

Autism impacts the normal development of the brain in the areas of social interaction and communication skills. Children and adults with autism typically have difficulties in verbal and non-verbal communication, social interactions, and leisure and play activities. The disorder makes it hard for them to communicate with others and relate to the outside world. In some cases, aggressive and/or self-injurious behavior may be present. Persons with autism may exhibit repeated body movements (hand flapping, rocking), unusual responses to people or attachments to objects and resistance to changes in routines. Individuals may also experience sensitivities in the five senses of sight, hearing, touch, smell, and taste.

Several related disorders are grouped under the broad heading "Pervasive Developmental Disorder" or PDD – a general category of disorders which are characterized by severe and pervasive impairment in several areas of development (American Psychiatric Association 1994). A standard reference is the *Diagnostic and Statistical Manual* (*DSM*), a diagnostic handbook now in its fourth edition. The *DSM-IV* lists criteria to be met for a specific diagnosis under the category of Pervasive Development Disorder. Diagnosis is made when a specified number of characteristics listed in the *DSM-IV* are present. Diagnostic evaluations are based on the presence of specific behaviors indicated by observation and

through parent consultation, and should be made by an experienced, highly trained team. Thus, when professionals or parents are referring to different types of autism, often they are distinguishing autism from one of the other pervasive developmental disorders.

Individuals who fall under the Pervasive Developmental Disorder category in the *DSM-IV* exhibit commonalities in communication and social deficits, but differ in terms of severity. We have outlined some major points that help distinguish the differences between the specific diagnoses used:

Autistic Disorder – impairments in social interaction, communication, and imaginative play prior to age 3 years. Stereotyped behaviors, interests, and activities.

Asperger's Disorder – characterized by impairments in social interactions and the presence of restricted interests and activities, with no clinically significant general delay in language, and testing in the range of average to above average intelligence.

Pervasive Development Disorder – Not Otherwise Specified – (commonly referred to as atypical autism) a diagnosis of PDD-NOS may be made when a child does not meet the criteria for a specific diagnosis, but there is a severe and pervasive impairment in specified behaviors.

Rett's Disorder – a progressive disorder, which to date, has occurred only in girls. Period of normal development and then loss of previously acquired skills, loss of purposeful use of the hands replaced with repetitive hand movements beginning at the age of 1-4 years.

Childhood Disintegrative Disorder – characterized by normal development for at least 2 years, significant loss of previously acquired skills. (*American Psychiatric Association 1994*)

Autism is a *spectrum disorder*. In other words, the symptoms and characteristics of autism can present themselves in a wide variety of combinations, from mild to severe. Although autism is defined by a certain set of behaviors, children and adults can exhibit *any combination* of the behaviors in *any degree of severity*. Two children, both with the same diagnosis, can act very differently from one another and have varying skills.

Therefore, there is no standard "type" or "typical" person with autism. Parents may hear different terms used to describe children within this spectrum, such as autistic-like, autistic tendencies, autism spectrum, high-functioning or low-functioning autism, more-abled or less-abled. More important to understand is, whatever the diagnosis, children can learn and function productively and show gains from appropriate education and treatment. The Autism Society of America provides information to serve the needs of all individuals within the spectrum.

Diagnostic categories have changed over the years as research progresses and as new editions of the *DSM* have been issued. For that reason, we will use the term "autism" to refer to the above disorders.

Children within pervasive developmental disorder spectrum often appear relatively normal in their development until the age of 24 -30 months, when parents may notice delays in language, play or social

interaction. Any of the following delays, by themselves, would not result in a diagnosis of a pervasive developmental disorder. Autism is a combination of several developmental challenges.

The following areas are among those that may be affected by autism:

Communication: language develops slowly or not at all; uses words without attaching the usual meaning to them; communicates with gestures instead of words; short attention span;

Social Interaction: spends time alone rather than with others; shows little interest in making friends; less responsive to social cues such as eye contact or smiles;

Social Impairment: may have sensitivities in the areas of sight, hearing, touch, smell, and taste to a greater or lesser degree;

Play: lack of spontaneous or imaginative play; does not imitate others' actions, does not initiate pretend games;

Behaviors: may be overactive or very passive; throws tantrums for no apparent reason; perseverates (shows an obsessive interest in a single item, idea, activity or person); apparent lack of common sense, may show aggression to others or self; often has difficulty with changes in routine.

Some individuals with autism may also have other disorders which affect the functioning of the brain such as: Epilepsy, Mental Retardation, Down Syndrome, or genetic disorders such as: Fragile X Syndrome, Landau-Kleffner Syndrome, William's Syndrome or Tourette's Syndrome. Many of those diagnosed with autism will test in the range of mental retardation. Approximately 25-30 percent may develop a seizure pattern at some period during life.

Every person with autism is an individual, and like all individuals, has a unique personality and combination of characteristics. There are great differences among people with autism. Some individuals mildly affected may exhibit only slight delays in language and greater challenges with social interactions. The person may have difficulty initiating and/or maintaining a conversation going. Communication is often described as talking at others (for example, monologue on a favorite subject that continues despite attempts of others to interject comments). People with autism process and respond to information in unique ways. Educators and other service providers must consider the unique pattern of learning strengths and difficulties in the individual with autism when assessing learning and behavior to ensure effective intervention. Individuals with autism can learn when information about their unique styles of receiving and expressing information is addressed and implemented in their programs. The abilities of an individual with autism may fluctuate from day to day due to difficulties in concentration, processing, or anxiety. The child may show evidence of learning one day, but not the next. Changes in external stimuli and anxiety can affect learning. They may have average or above average verbal, memory, or spatial skills but find it difficult to be imaginative or join in activities with others. Individuals with more severe challenges may require intensive support to manage the basic tasks and needs of living day to day.

Contrary to popular understanding, many children and adults with autism may make eye contact, show affection, smile and laugh, and demonstrate a variety of other emotions, although in varying degrees. Like other children, they respond to their environment in both positive and negative ways. Autism may affect their range of responses and make it more difficult to control how their bodies and minds react. Sometimes, visual, motor, and/or processing problems make it difficult to maintain eye contact with others. Some individuals with autism use peripheral vision rather than looking directly at others. Sometimes the touch or closeness of others may be painful to a person with autism, resulting in withdrawal even from family members. Anxiety, fear, and confusion may result from being unable to "make sense" of the world in a routine way. With appropriate treatment, some behaviors associated with autism may change or diminish over time. The communication and social deficits continue in some form throughout life, but difficulties in other areas may fade or change with age, education, or level of stress. Often, the person begins to use skills in natural situations and to participate in a broader range of their community in a meaningful way. People with autism can learn to compensate for and cope with their disability, often quite well.

While no one can predict the future, it is known that some adults with autism live and work independently in the community (drive a car, earn a college degree, get married); some may be fairly independent in the community and only need some support for daily pressures; while others depend on much support from family and professionals. Adults with autism can benefit from vocational training to provide them with the skills needed for obtaining jobs, in addition to social and recreational programs. Adults with autism may live in a variety of residential settings, ranging from an independent home or apartment to group homes, supervised apartment settings, living with other family members or more structured residential care. An increasing number of support groups for adults with autism are emerging around the country. Many self-advocates are forming networks to share information, support each other, and speak for themselves in the public arena. More frequently, people with autism are attending and/or speaking at conferences and workshops on autism. Individuals with autism are providing valuable insight into the challenges of this disability by publishing articles and books and appearing in television specials about themselves and their disabilities.

Pervasive Development Disorder – Not Otherwise Specified (PDD-NOS or PDD) – PDD is defined in the *DSM-IV* as "presentations that do not meet the criteria for Autistic Disorder because of late age onset, atypical symptomology, or subthreshold symptomology, or all of these. It's sort of a "catch-all" category. Some symptoms of Autistic Disorder are present but not enough for the diagnosis (See *DSM-IV*). Many parents breathe a sigh of relief when told, "Your child is not autistic, he just has PDD." Perhaps there is some comfort in this, in that the symptoms may ne be as severe but please read Dr. Bernard Rimland's article: Plain Talk about PDD and the Diagnosis of Autism, before you breathe too easily. PDD indicates problems with a child's socialization or communication or repetitive behaviors or a combination of some of these.

Rett's Disorder - The *DSM-IV* begins the diagnostic criteria for Rett's Syndrome with signs of normalcy: "apparently normal prenatal and perinatal development, apparently normal psychomotor development through the first five months after birth, and normal head circumference at birth." If this were a movie, you would hear ominous background music about now. Rett's Disorder is one of the more tragic

disorders because of this period of "normalcy". I once watched a videotape of home movies shot by loving parents of a girl with Rett's Disorder. Such a beautiful child and then, at around five months the symptoms began, almost imperceptively at first. The *DSM-IV* continues: "deceleration of head growth between 5 and 48 months; loss of previously acquired purposeful hand skills between 5 and 30 months with the subsequent development of stereotypical hand movements (e.g. hand wringing or hand washing); loss of social engagement early in the course (although often social interaction develops later); appearance of poorly coordinated gait or trunk movements; (and) severely impaired expressive and receptive language development with severe psychomotor retardation." Rett's Disorder occurs almost exclusively in females

Childhood Disintegrative Disorder – This condition has also been called Heller's syndrome, dementia infantilis, or disintegrative psychosis. The *DSM-IV* starts the diagnostic criteria with at least a two year period of normal development in all areas. However, this is followed by a "clinically significant loss of previously acquired skills (before age of 10 years) in at least two of the following areas: expressive or receptive language, social skills or adaptive behavior, bowel or bladder control, play or motor skills." In addition, the *DSM-IV* looks for: "Abnormalities of functioning in at least two of the following areas: qualitative impairment in social interaction, qualitative impairments in communication, (and/or) restricted, repetitive, and stereotyped patterns of behavior, interests, and activities, including stereotypes and mannerisms." The *DSM-IV* also states that the disorder is not better accounted for by another Pervasive Developmental Disorder or by Schizophrenia. The key difference between this disorder and autism is the period of normal development for at least the first two years of life (and perhaps up to age 10)

Asperger's Disorder – Asperger's Disorder (also known as Asperger Syndrome) is "a neurobiological disorder named for a Viennese physician, Hans Asperger, who in 1944 published a paper which described a pattern of behaviors in several young boys who had normal intelligence and language development, but who also exhibited autistic-like behaviors and marked deficiencies in social and communication skills." Asperger's Disorder is an autism spectrum disorder which is diagnosed by using a portion of the *DSM-IV* criteria for Autistic Disorder. A child or adult with Asperger's Disorder will meet the *DSM-IV* criteria for Autistic Disorder in the "impaired social interaction" and "restrictive repetitive and stereotyped patterns of behavior, interests, and activities" categories. However, there will be "no clinically significant general delay in language (e.g. single words used by age 2 years, communicative phrases used by age 3 years)" and there will be "no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than social interaction), and curiosity about the environment in childhood." While their vocabulary may be age-appropriate or higher, their social use of language (pragmatics) will typically be deficient. Children with Asperger's Disorder may not be diagnosed until well into their school years. This is probably due to the unimpaired cognition and less-impaired language skills they possess. Also, school is where the difficulty with social skills would most likely be very evident. Some persons with Asperger's Disorder come across as merely eccentric or odd. Persons with Asperger's Disorder may be preoccupied with and may only want to talk about a particular area of interest to them. They may have difficulty switching from one activity or topic to another and may prefer sameness. They often have obsessive routines and may

demand that others comply with them as well. Persons with Asperger's Disorder may seem to lack common sense, may not be able to pick up on nonverbal cues (body language), and may ignore appropriate personal space "rules". As with the other autism spectrum disorders, they may be overly sensitive to sounds, tastes, smells, and sights.

Tourette Syndrome – Tourette syndrome (TS) is an inherited, neurological disorder characterized by repeated involuntary movements and uncontrollable vocal (phonic) sounds called tics. In a few cases, such tics can include inappropriate words and phrases.

The symptoms of TS generally appear before the individual is 18 years old. TS can affect people of all ethnic groups; males are affected 3 to 4 times more often than females. It is estimated that 100,000 Americans have full-blown TS, and that perhaps as many as 1 in 200 show a partial expression of the disorder, such as chronic multiple tics or transient childhood tics.

The natural course of TS varies from patient to patient. Although TS symptoms range from very mild to quite severe, the majority of cases fall in the mild category

Benchmarks – items which describe amount of progress a student is expected to make in sequential logical steps within specified segment of school year; benchmarks establish expected performance levels that allow for regular checks of progress-reporting periods-major milestones.

Brain Imaging Techniques – recently developed, non-invasive techniques for studying the activity of living brains; includes Brain Electrical Activity Mapping (BEAM), Computerized Axial Tomography (CAT), and magnetic resonance imaging (MRI).

Brain Injury – the physical damage to brain tissue or structure that occurs before, during, or after birth that is verified by EEG, MRI, CAT, or a similar examination, rather than by observation of performance; when caused by an accident, the damage may be called Traumatic Brain Injury (TBI).

Collaboration – a program model in which the Special Needs Teacher demonstrates for or team teaches with the general classroom teacher to help a student with Special Needs be successful in a regular classroom.

CORE – an obsolete team referring to the process of evaluating a child and addressing the results of that evaluation.

Depression – more than just "feeling blue" or having a bad day. And it's different from feelings of grief or sorrow that follow a major loss, such as a death in the family. It's not a personal weakness or a character flaw. Children and teens with clinical depression cannot simply "Snap out of it". Depression is a serious health problem that impacts feelings, thoughts and actions, and can appear as a physical illness. As many as one in 8 teens and one in 33 children have clinical depression. Fortunately, depression in youth is treatable.

Signs of Depression

- Persistent sadness
- Withdrawal from family, friends and activities that were once enjoyed
- Increased irritability or agitation
- Changes in eating and sleeping habits (e.g. significant weight loss, insomnia, excessive sleep)
- Frequent physical complaints, such as headaches and stomach aches
- Lack of enthusiasm or motivation
- Decreased energy level and chronic fatigue
- Play that involves excessive aggression toward self or others, or that involves persistently sad themes
- Indecision, lack of concentration or forgetfulness
- Feelings of worthlessness or excessive guilt
- Recurring thoughts of death or suicide

Developmental Aphasia – a severe language disorder that is presumed to be due to brain injury rather than because of a developmental delay in the normal acquisition of language.

Direct Instruction – an instructional approach to academic subjects that emphasizes the use of carefully sequenced steps that include demonstration, modeling, guided practice, and independent application.

Dyscalculia – a severe difficulty in understanding and using symbols or functions needed for success in mathematics.

Dysgraphia – a severe difficulty in producing handwriting that is legible and written at an age appropriate speed.

Dyslexia – a severe difficulty in understanding or using one or more areas of language, including listening, speaking, reading, writing, and spelling.

Dysnomia – a marked difficulty in remembering names or recalling words needed for oral or written language.

Dyspraxia – a severe difficulty in performing drawing, writing, buttoning, or other tasks requiring fine motor skill, or in sequencing the necessary movements.

FAPE – Free and Appropriate Public Education, including special education and related services that are provided at public expense under public supervision and direction and without charge; that meet the standards of the State Educational Agency (SEA) including the requirements of IDEA.

504 Accommodation Plan – a written document detailing adaptations to be made to assist a child with a disability in access to the general curriculum and to a free and appropriate public education; does not involve specially designed instruction.

General Education Curriculum – Frameworks in Massachusetts – Federal Regulations define it as the curriculum used with nondisabled children.

IDEA – (federal) Individuals with Disabilities Act , reauthorized 1997.

LEA – Local Education Agency; usually, the town or city

LEP – Limited English Proficiency

LRE – Least Restrictive Environment; the school district shall ensure that, to the maximum extent appropriate, children with disabilities are educated with children who do not have disabilities, and that special classes, separate school, or other removal of children with special needs from the general education program occurs only if the nature of severity of the disability is such that education in general education classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Learned Helplessness – a tendency to be a passive learner who depends on others for decisions and guidance.

Learning Modalities – approaches to assessment or instruction stressing the auditory visual or tactile avenues for learning that are dependent upon the individual.

Learning Strategy Approaches – instructional approaches that focus on efficient ways to learn, rather than on curriculum; includes specific techniques for organizing, actively interacting with material, memorizing and monitoring any content or subject.

Learning Styles – approaches to assessment or instruction emphasizing the variations in temperament, attitude, and preferred manner of tackling a task; typically considered are styles along the active/passive, reflective/impulsive , or verbal/spatial dimensions.

Locus of Control – the tendency to attribute success and difficulties either to internal factors such as effort or to external factors such as chance; individuals with learning disabilities tend to blame failure on themselves and achievement on luck, leading to frustration and passivity.

Metacognitive Learning – instructional approaches emphasis awareness of the cognitive processes that facilitate one's own learning and its application to academic and work assignments; typical metacognitive techniques include systematic rehearsal of steps or conscious selection among strategies for completing a task.

Minimal Brain Dysfunction (MBD) – a medical and psychological term originally used to refer to the learning difficulties that seemed to result from identified or presumed damage to the brain; reflects a medical, rather than educational or vocational orientation.

Multisensory Learning – an instructional approach that combines auditory, visual, and tactile elements into a learning task.

Neuropsychological Learning – a series of tasks that allow observation of performance that is presumed to be related to the intactness of brain function.

Objectives – items which break skills within an annual goal into discrete components of sequential logical steps; measurable intermediate steps.

Perceptual Handicap – difficulty in accurately processing, organizing, and discriminating among visual, auditory, or tactile information.

Prereferral Process – a procedure in which special and regular teachers develop trial strategies to help a student showing difficulty in learning remain in the regular classroom.

Progress effectively in the general education program – to make documented growth in the acquisition of knowledge and skills, including social/emotional development, within the general education program, with or without accommodations, according to chronological age and developmental expectations, the individual educational potential of the child, and the learning standards set forth in the Massachusetts Curriculum Frameworks and the curriculum of the district; the general education program includes preschool and early childhood programs offered by the district, academic and nonacademic offerings of the district, and vocational programs and activities.

PSYCHOTIC DISORDERS

Psychotic disorders are mental illnesses that center on abnormal thinking and perceptions. Individuals with a psychotic illness may experience hallucinations, delusions, or illusions. An individual with hallucinations is utterly convinced that he or she sees, hears, smells, or is otherwise experiencing something that, in fact, does not really exist. For instance, some people who have hallucinations very clearly hear voices directing their behavior; yet , in reality no one is saying the things they hear. Delusions are fixed beliefs from which the individual cannot be shaken, despite obvious contradictory evidence. For instance, someone may have a delusion that he or she is a celebrity or famous religious or political figure, despite the fact that this is not true. Illusions involve misinterpreting actual sensory information in one's environment, such as seeing a mirage in the desert.

Psychotic disorders include schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, brief psychotic disorder, shared psychotic disorder, psychotic disorder due to a specific general medical condition, substance-induced psychotic disorder, and psychotic disorder not otherwise specified. These disorders share many features and also have important features that set them apart from each other.

> If you have schizophrenia, you have a variety of symptoms that last for at least six months. You may have bizarre and disturbing thoughts that you cannot control. You may believe that other people in your environment or on television or the radio are communicating directly with you, when in fact they are not. For instance, you may misinterpret song lyrics as being specifically about you. You may hear voices that scold you or direct your behavior. You may begin to feel as though everyone in the world is out to get you. You may see objects or people that do not

really exist. You may find these experiences extremely disturbing, but you may find it difficult to express much emotion about your experiences. You may begin to ignore basic hygiene. Your personal relationships, job or school life may begin to suffer drastically. You may find it difficult to move or speak smoothly. Your speech may become bizarre, and your train of thought may be impossible for others to follow. Others may see you as behaving in a flat, cold detached manner.

If you have schizophreniform disorder, you have the same symptoms as someone with schizophrenia, but the symptoms last at least a month but less than six months. Some people with schizophreniform disorder go on to develop full-fledged schizophrenia.

If you have schizoaffective disorder, you will experience some or all of the things that an individual with schizophrenia experiences. In addition, you will also experience a significant mood disorder, such as severe depression, mania or manic depression.

If you have delusional disorder, you may have a fixed belief that lasts at least one month and that others in your life try to tell you are incorrect. You may believe, for example, that the FBI is following you or that you are suffering from AIDS, even though neither is true. You may begin to interpret events in your environment supporting this belief, although others around you are clear that there is no connection between the events and your delusion. You will likely be unshakable in your belief that you alone know the truth.

If you have a brief psychotic disorder, you may have a very short episode of delusions, hallucinations, and disorganized (incoherent or inexplicable) speech or behavior. You may appear very much as if you are suffering from schizophrenia, but you will recover completely within a day to a month.

If you have a shared psychotic disorder (also called “folie a deux”), you may have an overly intense relationship with someone who already has a psychotic disorder with prominent delusions. In the course of the relationship, the nondelusional person becomes drawn into the other’s delusion and begins to believe just as strongly in it. This disorder is rarely seen, although some cases may go unrecognized.

If you have a psychotic disorder due to another general medical condition, you may have distinct hallucinations or delusions due to the presence of some other illness, such as a brain tumor or metabolic disorder (chemical imbalance).

If you have a substance induced psychotic disorder, you may have hallucinations or delusions caused by your use or withdrawal from an intoxicating substance. For example, individuals using crack cocaine have been known to have severe psychotic episodes.

If you have hallucinations, delusions, or disorganized speech and behavior , but do not meet the criteria for any of the above-mentioned diagnoses, you may be told that you have a psychotic disorder not otherwise specified.

SYMPTOMS

- Hallucinations
- Delusions
- Disorganized speech
- Disorganized behavior, perhaps dangerous to yourself or others
- Greatly slowed or bizarre movements
- Loss of interest in personal hygiene
- Loss of interest in the activities of life
- Disturbed interpersonal relationships
- Trouble succeeding at work or school
- Cold, detached manner; unresponsiveness; empty appearance
- Inability to express emotion
- Possible mood symptoms, such as depression or mania

Adolescent Psychiatric Conditions

Adolescents have no more psychiatric illness than any other age group. The mistaken assumption that psychopathology is typical in adolescence leads to both over and under diagnosis (if all teenagers are "disturbed", disturbance is normal). Follow-up studies suggest that adolescents seen in clinics and emergency departments for behavioral problems are different from the great majority of their peers and likely to remain so without adequate intervention.

Adjustment Disorder

An acute response to environmental stress by an adolescent with a basically good adaptive capacity; symptoms abate as stress diminishes.

This diagnosis often is misapplied to chronic difficulties of adjustment and to more serious psychopathology because of reluctance to give an unfavorable label and prognosis to children and adolescents. It is appropriate only when there is little evidence of an underlying disorder and when the environmental stress is impressive. Divorce and geographic relocation are examples of events that may evoke an adjustment disorder.

Posttraumatic Stress Disorder

Posttraumatic stress disorder (PTSD) may follow major traumatic events (e.g. a natural manmade disaster, observation of fatalities), immediately or after several weeks' delay, even in generally stable youth. PTSD differs from adjustment disorder in the greater severity of both causative trauma and symptomatic response. Traumatic recollections of the event, efforts to suppress them, and persistent states of anxiety and arousal with occasionally bizarre symptoms can occur, sometimes weeks after the event. Adults commonly underestimate the effect of such events on youth, and parents may unwisely discourage the child from recounting his observations and feelings.

Treatment may involve individual, group, or family therapy. Reassuring the child or parents that it is logical to be stressed by severe events can be supportive, as can obtaining and amply exploring the child's narrative of the event with its attendant distress. After adequate discharge of emotion, the child should be encouraged to suggest, in language appropriate to his background and maturity, how a different handling of events might have resulted in a better outcome, thus allowing for closure and offering hope for the future. Antidepressant drugs are sometimes helpful if distress persists.

Early group support can minimize subsequent PTSD and should include a detailed reconstruction of the event by the group, adequate venting of emotion, acknowledgement of typical responses to disaster, and emphasis on appropriate factual understanding of terrifying events. The distress of rescuers and treating personnel may be intense and can be relieved by systematic debriefing, where events and their emotional consequences are supportively reviewed by their participants.

Substance Use Disorder

Substance use has penetrated younger populations, including preadolescents. Some label all illegal substance use in underage adolescents as misuse; substance abuse is repeated use with adverse consequences. Daily use of marijuana and experimentation with a variety of compounds vary from year to year, but alcohol remains the principal substance of abuse. Heroin, cocaine, crack cocaine, crystal methamphetamine, and other stimulant abuse is less common but significant. Reported rates may be underestimated. Although substances in favor change, the profile of the susceptible child or adolescent is the same; less engaged in school, more invested in recreation, more likely to have a job and money. There is commonly a progression of use from alcohol to tobacco, reflecting their relative to accessibility, to marijuana and then to other compounds. Alcohol use rises in mid-to-late adolescence and follows a relatively stable pattern of use thereafter. Most persons begin serious abuse before the age 20, despite the implementation of preventative programs in schools and communities. Tobacco use continues to predict abuse of other substances.

Detailed information on alcohol and substance abuse should be sought in confidence during a routine examination, particularly when academic and behavioral problems are reported in previously well-adjusted or in families with a history of substance abuse. At the community level, adept negative publicity (e.g. some anti-smoking campaigns) using effective role models can induce behavioral change but requires ongoing and widespread effort to be sustained. At the individual level, group or individual therapy and/or antidepressant drugs may be helpful for patients with depression or dysphoria who abuse substances in an effort to self-medicate.

Conduct Disorder

A recurrent or persistent pattern of behavior that includes aggression toward people and animals, destruction of property, deceitfulness or theft, and serious violation of rules.

The prevalence of conduct disorder has apparently increased. Onset is usually in late childhood or early adolescence, and the disorder is much more common in boys than girls. Among adolescents

with conduct disorder, there is a frequent finding of parental antisocial behaviors, antisocial personality disorder, and substance abuse.

Children with conduct disorder lack sensitivity to the feelings and well-being of others, tend to misperceive the behavior of others as threatening, and tend to react aggressively with little feeling of remorse. They tolerate frustration poorly and are commonly reckless. Suicidal ideation is common, and suicide attempts must be taken seriously, as at the least very maladaptive behavior. Aberrant behaviors differ between the sexes. Boys tend to fight, steal, and vandalize; girls are more likely to lie, run away and engage in prostitution. Both are likely to use and abuse substances and have difficulties in school.

Oppositional Defiant Disorder has some similarities in that it involves negative, angry, and defiant behavior toward authority figures, but there is no persistent pattern of aggression or violation of the rights of others. Oppositional defiant disorder may evolve into conduct disorder.

Probably more than half of conduct-disordered youths cease such behaviors in early adulthood, but about a third of cases persist, meeting criteria for antisocial personality disorder. Other youths develop subsequent mood or anxiety disorders, somataform and substance-related disorders, and early adult-onset psychosis. Children with conduct disorders tend to have a higher-than-expected incidence of medical and psychiatric illness at follow-up. Treating medical, neurologic, and psychiatric conditions may improve self-esteem and self-control. Moralization and dire admonitions are ineffective and should be avoided. Often, only separation from a damaging environment and external discipline and consistent behavioral management systems offer hope of success.

Somataform Disorders

These disorders often begin in early adolescence, often occur together, are under diagnosed, and may be inadvertently reinforced by vigorous medical interventions.

Conversion Disorder occurs when unacceptable psychic conflict is expressed as a somatic symptom, often as a neurologic disease. Incidence in childhood is equal in both sexes but by mid-adolescence is higher in girls. Subsequent development of pain disorder is common.

Somatization Disorder involves a multitude of symptoms in patients-nearly all female, who make illness a way of life.

Conversion and somatization disorders occur more frequently if parents and other family members are symptomatic, providing models for a youth's symptomatology. Each disorder may afford both primary gain (by keeping the basic conflict unconscious) and secondary gain (by avoiding an undesirable situation or by affording extra attention). Although once synonymous with hysteria, both conditions actually occur in a wide range of psychologic disorders, particularly in depression, but also in schizophrenia, retardation, and many personality disorders.

Diagnosis is not made by exclusion. Symptoms suggest a medical or neurologic condition apparently precipitated by emotional conflict or stress, not consciously produced, and not explicably by a

medical condition or substance abuse. If a somatoform disorder is suspected, emotional assessment should proceed simultaneously with a thorough physical examination with expeditious, relevant laboratory tests, avoiding extensive and esoteric evaluations, which suggest diagnostic uncertainty and may be seen by the patient as confirmation of a physical problem. Neuropsychiatric or psycho logic testing may help determine the strengths and weaknesses of these children and adolescents but is often not covered by health plans. A formal psychiatric referral often is unacceptable, since it threatens the patient's (and family's) symptomatic solution.

Treatment involves developing a positive physician-patient relationship with frequent, relatively short medical visits, reassurance, thorough re-examinations, and inquiries into nonmedical areas. This approach may relieve underlying anxiety and wean the patient from a multiplicity of complaints. Reassurance and support by family members help to minimize somatic symptoms as the "ticket" for continued medical attention. Decisive medical or surgical intervention, which may entrench symptomatology, should be avoided without unequivocal indications. At the same time, such patients often do experience subsequent organic pathology, so it is wise never to dismiss somatization as "only functional" or "just in your head'.

Depression in Adolescence

Mild depression occurs in up to 10% of high school students, moderate depression in 5 to 6% and major depression in 1 to 2%. Diagnostic frequency rises when a standard depression inventory is used, and adolescents rarely object to such questionnaires. There is a significant genetic contribution to adolescent depression, and the younger a parent's depression began, the earlier it is to do so in the adolescent. More than half of adolescent suicidal behaviors stem from depression. The range of symptoms is very similar to that in adults, but signs of depression are modified by circumstances in the adolescent's life. For example, substance abuse is often self-medication for depression. Younger adolescents may be less able to explain inner feelings or moods for developmental reasons, whereas mid and older adolescents may believe that to do so is weak. Depression in adolescence is overlooked at least as often as in other age groups. Depression should be considered when a previously well-performing youth does poorly in school, withdraws from society, or commits delinquent acts. Diagnostic categories and treatment of adolescent depression are similar to those of adult depression.

Bipolar Disorder-(Manic Depressive Psychosis)

Bipolar disorder is rare before puberty. Some children do manifest marked mood swings (cyclothymic temperament), but these do not reach psychotic proportions, except when due to exposure to toxins and drugs.

Symptoms, Signs, and Diagnosis: Depressive manifestations in adolescents, especially when accompanied by stuporous or psychotic episodes, often herald the onset of bipolar disorder. Mania in adolescents is commonly confused with schizophrenia because it often takes the form of an excited psychotic attack. A cyclical pattern of retarded depression and an accelerated psychosis with good premorbid and intermorbid functioning strongly favor the diagnosis of bipolar disorder.

Treatment: Because prevention of disruptive psychotic episodes is important, lithium valproate, or carbamazepine should be initiated after a single manic episode or psychotic mixed state in an adolescent or young adult with a family history of bipolar disorder. Whether lithium can prevent recurrences has yet to be established; there are no data on possible toxic effects on development, particularly of the kidneys, thyroid, and brain in children. Valproate is preferred over lithium by many physicians because of its familiarity from epileptic management, but it may cause liver damage, particularly in younger children. Blood levels are best toward the high end of the therapeutic range (50 to 100 mg/mL). Carbamazepine is effective at 4 to 12 mg/mL, but neurologic and hematologic side effects are sometimes problematic. Gabapentin and lamotrigine are occasionally useful because they do no cross-react with other seizure drugs. Prevention of disruptive psychotic episodes in school or in other public settings is important because of possible embarrassment or social repercussions. Ensuring compliance is the biggest challenge in adolescent patients, who often experience repeated episodes before accepting the need for ongoing medication. The need for ongoing therapy can be reassessed after at least one year of successful treatment.

Antidepressants may also be indicated but usually should be combined with an antimanic medication to prevent possible escalation into mania.

Childhood Psychosis

Psychoses are manifested by pathology in all areas of mental function; behavior, cognition, and affect. They are relatively rare (4 to 10 cases/10,000 children) but pose significant problems for medical care. They can be differentiated into four major categories, each differing in age of onset, course, and prognosis: autism, childhood-onset pervasive development disorder, childhood disintegrative disorder, and childhood schizophrenia.

Childhood Depression

The existence of depression in childhood is accepted by most authorities. Severe mood disorders comparable to those seen in adults, including bipolar disorder, are relatively rare in children.

Depression in school-aged and even pre-school children has received greater recognition in recent years. Severe disease is more likely in families with depression, suggesting a genetic component, with a higher incidence of depression in the pedigree than in the general population.

Signs and Symptoms: The basic manifestations of childhood depression are similar to those seen in adults but are related to typical concerns of children, such as schoolwork and play. Symptoms include a sad appearance, apathy and withdrawal, reduced capacity for pleasure, feeling rejected and unloved, somatic complaints (headaches, abdominal pain, insomnia), episodes of clowning or foolish behavior, and persistent self blame. Chronic depressive reactions are associated with anorexia, weight loss, despondency, and suicidal ideation. Depression may be masked by over-activity and aggressive, anti social behavior.

Extremes of irritability and aggression, rather than depressed mood per se, are quite common. When such features coexist with typical adult affective symptoms and signs of depression, mood disorder is a more appropriate diagnosis than adjustment disorder or behavior disorder. Mood disorders can occur in mentally retarded children but may be masked by somatic symptoms and behavioral disturbances. A history of cyclic disturbances and family history for bipolar illness may aid in differential diagnosis.

Treatment: Evaluation of the family and social setting is required to identify stresses that may have precipitated depression. Appropriate measures directed at the family and school must accompany direct treatment of the child, focusing on enhancing his self-esteem and continued functioning. Brief hospitalization may be necessary in acute crises.

The indications and dosage range of antidepressants for preadolescent depression are not established; conservative doses and increments are best. Although controlled studies remain to be done, most clinicians believe that tricyclic antidepressants (e.g. imipramine 1 to 2.5 mg/kg/day) are useful adjuncts to treatment. Newer drugs such as fluoxetine and bupropion, are being used increasingly, but their effectiveness and safety in children have not been established. Given individual variation in pharmacokinetics of trycyclic antidepressants, monitoring plasma concentration is useful in determining optimal dosage levels. A plasma level of 150 to 250 mg/mL is considered the range of therapeutic effectiveness although an upper level in children has not been established. Before starting therapy with a trycyclic antidepressant, an ECG should be obtained. Throughout treatment, PR and GRS characteristics should be monitored. Clinicians must be vigilant for "switching" (i.e. change from depression to manic state), because childhood-onset depression is commonly a precursor to bipolar disorder.

Related Services - broad range of developmental , corrective and supportive services that assist a child to benefit from special education; transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from specially designed instruction, and includes speech-language pathology and audiology services, psychological services, physical and occupational therapy, recreation (including therapeutic recreation), early identification and assessment of disabilities in children, counseling services (including rehabilitation counseling), orientation and mobility services, medical services except for diagnostic or evaluation purposes; also school health services, social work services in school, and parent counseling and training.

Resource Program – a program model in which a student with a learning disability is in a regular classroom for most of each day, but also receives regularly scheduled individual services in a specialized resource classroom.

Self-Advocacy – the development of specific skills and understandings that enable children and adults to explain their specific disabilities to others and cope positively with the attitude of peers, parents, teachers and employers.

Chapter 766 – *obsolete* – replaced by MA 603 CMR 28.00

Special Education – specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability, and shall include the programs and services set forth in state and federal special education law; it is a modification of instruction, instruction level, content and/or performance criteria; specifically designed instruction is a modification not regularly provided for students in the general education program.

Specially Designed Instruction – adapting, as appropriate to the needs of an eligible child, the content, methodology, or delivery of instruction and/or performance criteria, to address the unique needs of the child that result from the child's disability and to ensure access of the child to the general curriculum, so that he or she can meet the educational standards within the jurisdiction of the public agency that apply to all children; designed by or with an appropriately credentialed special education .

Specific Language Disability (SLD) - a severe difficulty in some aspect of listening, speaking, reading, writing, or spelling, while skills in the other areas are age appropriate; also called Specific Language Learning Disability (SLLD).

Specific Learning Disability (SLD) – the official term used in federal legislation to refer to difficulty in certain areas of learning, rather than in all areas of learning; synonymous with learning disabilities.

Supplementary Aids & Services – aids, services, and other supports that are provided in regular education classes or other education – related settings to enable children with disabilities to be educated with non-disabled children to the maximum extent appropriate.

SYNDROMES

CHARGE (coloboma-heart disease-atresia of choanae-retarded mental development and growth-genital hypoplasia-ear abnormalities-deafness) association or syndrome - An association of posterior choanal atresia with variable multiple abnormalities which include delayed mental and somatic development, ocular coloboma, ear abnormalities, deafness (usually associated with recurrent otitis, rather than ear anomalies), hypogenitalism, and heart defects. Many children have feeding, swallowing, and breathing difficulties and facial paralysis which are caused by multiple cranial nerve dysfunction. The syndrome occurs twice as often in girls as in boys and usually affects the right side of the body.

Usher Syndrome – (Graefe-Usher syndrome) – A hereditary disorder characterized by deaf-mutism, retinitis pigmentosa, and occasional mental retardation.

Turner Syndrome (chromosome XO syndrome) – A syndrome in which the affected patients have only 45 chromosomes, the loss of one of the X chromosomes producing an XO chromosome constitution. Gonadal agenesis and short stature are the main features in the surviving infants. Associated anomalies may include webbed neck, cubitus valgus, shield chest, short stature, lymphedema, coarctation of the aorta, pigmented nevi, and various renal, skeletal, dermatologic, neoplastic, and autoimmune complications. Mental retardation is attributed to ring chromosome X.

The phenotype varies and not all abnormalities occur in all patients. (Synonyms: Morgagni-Turner syndrome, Morgagni-Turner-Albright syndrome, Shereshevskii-Turner syndrome, Turner syndrome (TS), Turner-Albright syndrome, Ullrich-Turner syndrome (UTS)).

Noonan Syndrome (chromosome Xq duplication syndrome) – A cardiofacial syndrome with a variable phenotype, which may change with age, many characteristics of which overlap those of the Turner syndrome. Short stature and mild mental retardation are the main features of this syndrome. Webbed neck, heart defects, chest deformities, characteristic facial features, and other abnormalities, and occasional hyperpyrexia may be associated. Cardiofaciocutaneous and Noonan syndromes are sometimes considered the same entity. (Synonyms: familial Turner syndrome, female pseudo-Turner syndrome, female Turner syndrome, pseudo Ullrich-Turner syndrome, Turner-like syndrome, Turner phenotype with normal karyotype, Turner syndrome in female with X chromosome).

Angelman syndrome (AS) – A condition in which children laugh frequently for almost any reason and whose jerky movements and flapping of the hands are similar to those of a marionette, or puppet-hence the synonym "happy puppet syndrome". Other disorders include a peculiar facial expression, mental retardation, movement disorders, microbrachycephaly, and various neurological disorders.

Cri Du Chat Syndrome (chromosome 5p deletion syndrome) – Deletion of the short arm of chromosome 5 characterized by a variable clinical picture consisting of severe mental deficiency, growth retardation, multiple abnormalities and a peculiar crying sound resembling that of a suffering kitten (hence the synonym crying cat syndrome).

Williams syndrome (WMS, WS) – A multiple congenital cri du chat syndrome that disappears within weeks or months after birth anomaly/mental retardation syndrome with a complex phenotype and age-related variability of expression. Typical facial appearance (elfin faces) is the most characteristic feature of this syndrome. Delayed growth, feeding difficulty, failure to thrive, colic, otitis media, and mental retardation are the early symptoms of infancy. Developmental disabilities and cardiovascular complications become apparent later in childhood. Hypertension, gastrointestinal problems, and genitourinary disorders usually complicate adult development. The phenotype may overlap with hypercalcemia with or without mental retardation and supravalvular aortic stenosis, with or without mental retardation. (Synonyms: Williams-Barratt syndrome, Williams-Beuren syndrome (WBS) hypercalcemia/Williams-Beuren syndrome).

Sotos syndrome – Increased birth weight with excessive growth during the first four years of life, macrocephaly, characteristic facial features, nonprogressive cerebral disorder and mental retardation.

Prader-Willi syndrome (PWS) – A syndrome characterized at birth by lack of spontaneous and protective reflexes, thus giving an appearance of severe brain damage. Profound hypotonia may cause asphyxia. Sucking and swallowing reflexes are absent or decreased. Deficient thermoregulation, amyotonia, and hypogonadism are usually associated. After a few weeks or

months, the affected infants become more responsive and more alert. Areflexia disappears gradually but hypotonia may persist longer. This phase is marked mainly by mental subnormality, delayed growth and motor development, speech defect, lack of emotional control, voracious appetite leading to obesity, hypotonia, hyperlaxity, delayed bone maturation, and multiple orofacial and other disorders. There is a tendency to develop diabetes mellitus and cardiac failure in some patients. Pain insensitivity is common. Prader-Willi habitus associated with osteopenia and camptodactyly is known as Urban-Rogers-Meyer syndrome.

Down syndrome (chromosome 21 trisomy syndrome) – The most frequently occurring mental retardation/multiple anomaly syndrome usually involving more than 100 individual defects. Typical facies with upslanting palpebral fissures is the characteristic feature of this syndrome (hence the offensive designations "mongoloid idiocy" and "mongolism"). A wide range of other defects, such as congenital heart diseases, respiratory disorders, and leukemia, may be associated. Down syndrome patients who survive into late adulthood may develop Alzheimer syndrome. (Synonyms – Langdon Down syndrome).

Fragile X Syndrome (chromosome X fragility syndrome) – An inherited disease characterized by the presence of a fragile site in the long arm of chromosome X. It is a common cause of mental retardation, second only in frequency to the Down syndrome (trisomy 21). The expression varies with mental retardation, macroorchidism, high-pitched voice, narrow face, long jaw, large ears, prominent forehead, highly arched narrow pallet, and joint laxity as the most common characteristics. Microcephaly, typical facies, shortness of stature, and absence of macroorchidism characterize the Renpenning but not Martin-Bell syndrome. Major characteristics of the Martin-Bell syndrome include: mental retardation with speech and behavioral disorders; connective tissue dysplasia, square facies with midfacial hypoplasia; slightly below normal height without intra-uterine growth retardation; average or above average head circumference; large and frequently anteverted ears, prominent forehead and supraorbital ridges; large nose; prominent mandible which becomes apparent during adolescence, joint laxity, minor limb abnormalities, dermatoglyphic abnormalities; and seizures.

Pierre Robin Syndrome (congenital thrombocytopenia-Robin sequence-agenesis of corpus callosum-distinctive facies-developmental; delay syndrome – A syndrome of congenital thrombocytopenia and Robin syndrome with distinctive facies (microcephaly, high forehead, downslanting palpebral fissures, blepharoptosis, telecanthus, broad nasal root, inverted U shaped mouth, and malformed ears), dysplasia of the enamel, agenesis of the corpus and expressionless face; enamel hypoplasia, retarded growth and mental development, and variable renal, cardiac, and osseous defects.

Landau Kleffner Syndrome – is a rare form of childhood epilepsy which results in a severe language disorder. The cause of the condition is unknown. All children with LKS have abnormal electrical activity in one, sometimes both temporal lobes, the area of the brain responsible among other functions for processing language. This epileptiform activity shows up in an EEG test particularly when the child is asleep. About two-thirds of LKS children have seizures. Seizures during the night

are common. The language disorder in most children affects comprehension or understanding. Expressive language – the ability to speak is often seriously affected; some children lose their speech completely. Rarely, a child may be able to understand language, but have difficulty with speaking. Behavioral problems are common, especially hyper-activity, poor attention, depression, and irritability. Some children have episodes of very abnormal "autistic type behavior" with symptoms such as avoidance of contact with family and friends (avoidance of eye contact is common) extreme pickiness over food, very disturbed sleep, attacks of rage and aggression, insensitivity to pain, bizarre and inappropriate and repetitive play.

LKS starts most commonly between 3 and 8 years old. It may develop slowly over many months or overnight. When it develops in young children who have not yet learnt to talk it may be mistaken for a developmental language disorder, deafness, or autism.

TEAM – a group of persons, meeting, participant requirements of federal special education law, who, together, discuss evaluation results, determine eligibility, develop or modify an IEP or determine type of placement; the IEP team for each child with a disability includes parents of the child; at least one regular education teacher of the child (if child is or may be participating in the regular education environment); at least one special education teacher of the child or, if appropriate, one special education provider of the child; a representative of the public agency who is qualified to provide or supervise provision of specially designed instruction to meet the unique needs of children with disabilities, is knowledgeable about general curriculum, is knowledgeable about availability of resources of public agency; an individual who can interpret the instructional implications of evaluation results (may be one of the above, or next attendee); at discretion of parent or agency, other individuals who have knowledge or special expertise regarding child, including related services personnel as appropriate; if appropriate the child.

Transition – commonly used to refer to the change from secondary school to postsecondary programs, work, and independent living typical of young adults; also used to describe other periods of major change such as from early childhood to school or from more specialized to mainstreamed settings.

Traumatic Brain Disorder – TBI is a unique disorder because the individual who suffers from this disability was previously healthy. TBI is defined by an insult to the brain, not of a degenerative or congenital nature, but caused by an external physical force that may produce a diminished or altered state of consciousness which results in impairment of cognitive abilities. It can be caused by an external physical force or by an internal occurrence. The term "acquired brain injury" refers to both traumatic brain injuries such as open-or closed-head injuries, and non-traumatic brain injuries, such as strokes and other vascular accidents, infectious diseases, anoxic injuries, metabolic disorders and toxic products taken into the body through inhalation or ingestion.