Mental Retardation

Introduction

Mental retardation refers to a condition in which a person's ability to learn and to function is more limited than others of the same age. During infancy and the toddler years, a child may be considered only a bit slow, although delays in development and in language and motor skills may be apparent. A diagnosis of mental retardation, however, is often not made until the child is in elementary school and has difficulty in mastering academic skills. Although children with Down Syndrome are mentally retarded, there are a number of other causes of mental retardation.

Real Life Stories

Joanna, aged 4 1/2, was interviewed by the director of a preschool when her parents applied to have her enrolled. Joanna smiled a great deal and was interested in the toys in the office. The director, however, was concerned about Joanna's inability to say her own name and address, to communicate basic information about her family, and to express herself verbally. After an evaluation, Joanna was diagnosed as mildly mentally retarded, and she is now enrolled in a special school where she receives individual help in language development and academics. Her teachers feel that she is benefiting from the program and will be ready to enter a mainstream kindergarten.

Michael, 5, was diagnosed by his pediatrician shortly after his birth as having Down Syndrome, due to certain physical characteristics such as his round face, flattened nose bridge, abnormally small head, low-set ears, short limbs, and abnormally shaped fingers. Mental retardation is inevitable in children with Down Syndrome. Michael's parents were helped to locate an appropriate early intervention program that also provides parent education.

Eddie, 5th grade, was always considered a little slower than his peers, but he was a likeable child who got along well with family members and friends. When academic work became demanding and he fell behind in 2nd grade, the school conducted an evaluation. He was diagnosed as having moderate mental retardation and was placed in a special education class where the material is appropriate for his cognitive ability and learning pace.

Signs & Symptoms

The usual presenting symptoms in people with mental retardation are impairment in adaptive functioning, rather than low IQ. Adaptive functioning refers to how effectively individuals cope with common life demands and how well they meet the standards of personal independence expected of someone in their particular age group, sociocultural background and community setting. Adaptive functioning may be influenced by factors such as education, motivation, personality characteristics, social and vocational
opportunities and the mental disorders and general medical conditions that can coexist with mental retardation. Problems in adaptation are more likely to improve with remedial efforts than is the cognitive IQ.

It is useful to evaluate deficits in adaptive functioning by using information from one or more reliable independent sources (e.g., teacher evaluation, and educational, developmental and medical histories). Several interview scales have been designed to measure adaptive functioning or behavior (e.g., Vineland Adaptive Behavior Scales and the American Association on Mental Retardation Adaptive Behavior Scale). As in the assessment of intellectual functioning, consideration should be given to the suitability of the instrument to the person’s sociocultural background, education, associated handicaps, motivation and cooperation. In addition, some behaviors that would normally be considered maladaptive (e.g., dependency, passivity) may be evidence of good adaptation in the context of the particular life setting of a person with mental retardation.

As a group, people with **mild mental retardation** typically develop appropriate social and communication skills during the preschool years (ages 0-5 years), and have minimal impairment in sensorimotor areas. They often are not distinguishable from children without mental retardation until a later age. By their late teens, they can acquire academic skills up to approximately the sixth-grade level. During their adult years, they usually achieve social and vocational skills adequate for minimum self-support, but may need supervision, guidance and assistance, especially when under unusual social or economic stress. With appropriate supports, individuals with mild mental retardation can usually live successfully in the community, either independently or in supervised settings.

As a group, most people with **moderate mental retardation** acquire basic communication skills during the early childhood years. They profit from vocational training and, with moderate supervision, can attend to their personal care. They can also benefit from training in social and occupational skills but are unlikely to progress beyond the second-grade level in academics. They may learn to travel independently in familiar places. During adolescence their difficulties in recognizing social conventions may interfere with peer relationships. In their adult years, the majority are able to perform unskilled or semiskilled work under supervision in sheltered workshops or in the general work force. They adapt well to life in the community, usually in supervised settings.

As a group, people with **severe mental retardation** acquire little or no communicative speech during the early childhood years. During the school-age period, they may learn to talk and can be trained in basic self-care skills. Their ability to profit from instruction in pre-academic subjects is limited. They can become familiar with the alphabet and simple counting, and can master skills such as learning sight reading of some 'survival' words. In the adult years they may be able to perform simple tasks in closely supervised settings. Most adapt well to life in the community, in supervised group homes or with
their families, unless they have an associated handicap that requires specialized nursing or other care.

As a group, people with **profound mental retardation** have an identified neurological condition that accounts for the mental retardation. During the early childhood years they have considerable impairment in sensorimotor functioning. Optimal development may occur in a highly structured environment with constant aid and supervision and an individualized relationship with a caregiver. Motor development and self-care and communication skills may improve if appropriate training is provided. Some can perform simple tasks in closely supervised and sheltered settings.

### Co-occurring Disorders

Individuals with mental retardation have co-existing mental disorders at a rate that is estimated to be three to four times greater than in the general population. In some cases this may be due to a shared etiology (e.g., head trauma may result in mental retardation and in personality change). All types of mental disorders can occur in people with mental retardation, and there is no evidence that the nature of a given mental disorder differs in individuals with or without mental retardation. A psychiatric diagnosis, however, is often complicated by the fact that the clinical presentation may be modified by the severity of the retardation. The most common associated disorders are attention-deficit/hyperactivity disorder, mood disorders, pervasive developmental disorders, stereotypic movement disorder, and mental disorders due to a general medical condition. Individuals who have Down Syndrome may be at higher risk for developing dementia of the Alzheimer's type later in life.

### Related Disorders

The diagnosis of mental retardation must be differentiated from learning or communication disorders. In these disorders there is no generalized impairment in intellectual development and adaptive functioning. However a learning or communication disorder may exist in an individual with mental retardation when the delay in these areas is below what is expected with the individual's level of retardation.

### Children at Risk

Mental retardation occurs in upper and lower socioeconomic classes, except that certain etiological factors (e.g., lead poisoning and premature births) are linked to lower socioeconomic class. Individuals with mental retardation exist in all cultures, educational, racial and ethnic groups.

### Age

The prevalence of mental retardation in adults has been estimated at approximately 1%, or roughly 1 in 100. However, as many as 3% of school-age children are diagnosed as mentally retarded. The difference between child and adult rates may be due to the fact
that some children may improve their adaptive abilities so that the diagnosis no longer applies.

**Gender**

Mental retardation is more common in males, with a male-to-female ratio of 1.5:1.

**Causes**

Mental retardation may be due to a variety of causes. Most cases are due to environmental and psychosocial factors, such as lack of stimulation, inadequate nutrition, and exposure to toxins such as lead. About 25% are due to either a chromosomal or metabolic abnormality, the most common of which are Down Syndrome and Fragile-x syndrome.

Down Syndrome, which is due to an extra chromosome, is the most common form of mental retardation. Approximately 7,000 infants with Down Syndrome are born in the United States each year, roughly 1 in 700 live births.

Fragile-x is the most common form of inherited mental retardation and second only to Down syndrome in frequency as a known chromosomal cause. It is estimated to occur in about 1 of every 1,250 male births and 1 of every 2,500 female births.

Phenylketonuria (PKU) is a metabolic disorder that leads to mental retardation. PKU is a congenital deficiency of a particular enzyme (phenylalanine hydroxylase), and infants born with this rare disorder have normal brains that quickly begin to deteriorate because of the absence of the enzyme. Because a special diet can prevent the severe brain damage that can result from untreated PKU, many states require a simple blood test at birth to test for this disorder.

Certain conditions during pregnancy can increase the risk of mental retardation. These include toxemia; placenta previa; exposure to radiation during the first trimester; the ingestion of certain harmful drugs during pregnancy; alcohol use by an expectant mother; and maternal malnutrition. In addition, intrauterine infections such as German measles, complications of premature birth, and birth trauma can cause mental retardation.

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**Treatment**

Specialized programs - in which children with mental retardation are stimulated at an early age with appropriate sensory, motor and cognitive activities - are available in most states. Programs vary from location to location, but they usually involve therapists and special educators whose goal is to help the child develop motor skills, language, social skills and self-help skills. Early intervention programs, started as soon as possible, may give children with mental retardation the best chance of success.

**Questions & Answers**

My 3-year-old son is having difficulty talking. He knows a few words but he can’t put them together to tell me what he wants. And sometimes he doesn’t seem to understand what I’m saying. Does that mean he’s mentally retarded?

Delayed language development is not necessarily a sign of mental retardation, but it’s important to differentiate between the two in order to provide the most appropriate services. It would be wise to talk with his pediatrician about getting an evaluation of his development.

What if a 2-year-old is diagnosed as mentally retarded? How do parents know what to do? Is there any help available from the state or national government?
From birth to age 3, children with mental retardation and their families can receive early intervention services. Each state has a specific state department, usually an education, public health or mental health agency, which provides these services. Although the services vary from state to state they usually involve home visits by the appropriate professionals who work with the child and the parents to provide the necessary therapeutic interventions. Interventions and training may also occur in day care or other community settings.

**What would be the best treatment for a 6-year-old just diagnosed as having mental retardation? She’s having difficulty keeping up with kids on the playground and then she gets angry and teases the other children.**

A treatment plan should be comprehensive and, to determine the degree of impairment, it may be appropriate to involve several professionals. Some of the services which may benefit the child are: speech and language therapy, occupational therapy, special education services, environmental changes, skills development, behavioral intervention, social skills training and medications. Parent support groups may also be helpful.

**What happens as a child with mental retardation gets older? How do parents find the right schools and how can they make sure their child is educated and becomes a productive adult?**

The federal Individuals with Disabilities Education Act (IDEA) of 1990, reauthorized in 1997, mandates that all children, including those with disabilities, are entitled to an education that is both "free" and "appropriate." Children with disabilities are entitled to receive publicly funded education from the age of 3 until age 22. By law, parents have many rights regarding the assessment of children and the type of school placement recommended for their child, and schools are required to provide parents with information about their rights. One right is that the child be educated in the "least restrictive environment." Students with mental retardation attend a variety of different educational placements. Many attend only general education classes, possibly with an aide for part or all of the school day. Others attend a mix of general and special education classes; a smaller number attend only special education classes or special schools. During adolescence schools are required to initiate transition planning with the student and parents to make sure plans are made about the student's transition from the school system into vocational or further educational endeavors. Schools are also required to offer students with disabilities a vocational assessment during the high school years.