UNIT 1 CHILD AND ADOLESCENT MENTAL HEALTH

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1.1 INTRODUCTION

It is in this century that child and adolescent mental health has received significant attention by mental health professionals and its importance for later adulthood development is being recognized. The Human Rights movement, psychoanalytic concepts and various theories of personality have all made a significant contribution to the issues of child and adolescent mental health. In most societies, children and adolescents are considered incomplete, dependent, not very competent and a liability on society. However, more modern view is that children and adolescent are individuals in their own right. Just like adults they have common needs of food, health, shelter and security. In addition they have some special needs e.g., opportunities to grow and develop, care and protection, vocational training and recreational. Children and adolescent are dependent on adults for these needs, so it is not only the responsibility of the parents but also of the society to provide for these needs. The role of society becomes all the more critical.
when we acknowledge that child population is not homogeneous. Large numbers of children have no home, school and family. Children could be living in orphanages, destitute homes, beggars’ homes, juvenile homes, rescue homes and remand homes. They could also be living on the streets. All these groups of marginalized children and adolescents would have psycho-social needs that have to be addressed if they are to be productive adults of the society in the future.

Thus there are significant challenges to the mental health development of children and adolescent that need careful evaluation and intervention by mental health professionals so that young people can achieve their full potential. This Unit will help you learn various mental health disorders in children and adolescents and their management.

1.2 OBJECTIVES

After studying this unit you will be able to:

- discuss the importance of mental health development in children and adolescents;
- describe the normal development of children and adolescents;
- describe various types of mental health disorders in children and adolescents;
- explain the etiology of mental disorders in children and adolescents; and
- list out principles of management of mental disorders in children and adolescents.

1.3 CHILD DEVELOPMENT

It is very important to understand normal physical and mental development before going on to mental health issues. Development results from the interplay of maturation of the central nervous system (CNS), neuromuscular apparatus, endocrine system, and environmental influences e.g., parents and teachers, who can either facilitate or thwart the child’s attainment of his or her developmental potential. This potential is specific to each person’s given genetic predispositions to (a) intellectual level and (2) mental disorder temperament and probably, certain personality traits.

Development of brain is continuous and lifelong process but most rapid growth is seen in early life. At the time of birth, brain weighs 350 grams. At 7 years of age, it is close to 90% of the adult 1,350 grams. Cytogenetic changes such as neuronal differentiation, axonal growth, synapse formation and myelination begin during embryonic stage. Further development of brain continues and synaptic communication between neurons leads to the establishment of functional neural circuits that mediate sensory and motor processing. Most of the development of the human brain happens within the first 20 years of life.

1.3.1 Theories of Child Development

Historically, most cited theorists in child development have been Sigmund Freud, Margaret Mahler, Erik Erikson and Jean Piaget. These theories still have relevance in today’s date. You have gone through some of these theories in MPC 051.

i) Sigmund Freud. Sigmund Freud is the first to discover and submit to theoretical frameworks the importance of early childhood in the development of personality and psychopathology. His data however came from the psychoanalyses of late adolescent or adult patients. He did not systematically observe or treat normal or abnormal children. Those who have done so have added to and revised his concept. Today this theory accounts for some but certainly not all of psychopathology.
ii) **Margaret Mahler.** Mahler observed children and their mothers and evolved a theory of separation-individuation. With the exception of her theory of phases during the first months of life which emphasizes that infants lack alertness and responsiveness, her theory is widely accepted today.

iii) **Erik Erikson.** Erickson has extended development throughout life and at each stage there is a conflict and resolution e.g., basic trust versus mistrust in the first stage. His work emphasizes the individual’s adaptation to society.

iv) **Jean Piaget.** A genetic epistemologist, Piaget studied the behaviors from birth, of his three children and evolved a comprehensive, respected theory of cognitive development. His work reveals infant as an active problem solver.

### 1.3.2 Milestones of Normal Development

Normal motor and sensory, adaptive behavior and personal and social development milestones are described in Table-1.

<table>
<thead>
<tr>
<th>Age</th>
<th>Motor and sensory behavior</th>
<th>Adaptive behavior</th>
<th>Personal and social behavior</th>
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<tbody>
<tr>
<td>Birth to 4 weeks</td>
<td>Hand to mouth reflex, grasping reflex, rooting reflex (puckering lips in response to per oral stimulation), motor reflex (digital extension when startled), sucking reflex, Babinski reflex (toes spread when sole of foot is touched)</td>
<td>Anticipatory feeding — approach behavior at 4 days. Responds to sound of rattle and bell. Regards moving objects momentarily.</td>
<td>Responsiveness to mother’s face, eyes and voice within first few hours of life. Endogenous smile. Independent play (until 2 years). Becomes quiet when picked up. Impassive face.</td>
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<tr>
<td>4 weeks</td>
<td>Tonic neck reflex positions, predominate hands fist. Head sags but can hold head erect for a few seconds. Visual fixation. Stereoscopic vision (12 weeks)</td>
<td>Follows moving objects to the midline. Shows no interest and drops objects immediately.</td>
<td>Regards face and diminishes activity. Responds to speech. Smiles preferentially to mother.</td>
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<tr>
<td>16 weeks</td>
<td>Symmetrical postures predominate holds head balanced. Head lifted 90 degrees when prone of forearm. Visual accommodation</td>
<td>Follows a slowly moving object well. Arms activate on sight of dangling object.</td>
<td>Spontaneous social smile. Aware of strange situations</td>
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<tr>
<td>Age</td>
<td>Developmental Milestones</td>
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<td>---------</td>
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<td></td>
<td></td>
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<tr>
<td>40 weeks</td>
<td>Sits alone with good coordination. Creeps. Pulls self to standing position. Points with index finger. Matches to objects of middling. Attempts to imitate scribble. Separation anxiety manifests when taken away from mother. Responds to social play, such as pat a cake and peek-boo. Feeds self biscuit and holds own bottle.</td>
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<tr>
<td>52 weeks</td>
<td>Walks with one hand held. Stands alone briefly. Seeks novelty. Cooperates in dressing.</td>
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<tr>
<td>15 months</td>
<td>Toddlers Creeps upstairs. Points or vocalizes wants. Throws objects in play or refusal.</td>
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<tr>
<td>18 months</td>
<td>Coordinated walking. Seldom falls. Walks up stairs with one hand held. Build a tower of three or four cubes. Scribbles spontaneously and imitates a sitting stroke. Feeds self in part, spills. Pulls toy on string. Carries or hugs a special toy, such as a doll. Imitates some behavioral patterns with slight delay.</td>
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<tr>
<td>4 years</td>
<td>Walks down stairs one step to a stead. Stands on one foot for five to eight seconds. Copies a cross. Repeats four digits. Counts three objects with correct pointing. Washes and dries own face. Brushes teeth. Associative or joint play.</td>
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<tr>
<td>6 years</td>
<td>Rides two wheel bicycle. Prints name. Copies triangle. Ties shoelaces.</td>
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1.4 PRINCIPLES OF CHILD AND ADOLESCENT DIAGNOSTIC ASSESSMENT

While assessing children and adolescents for mental health problems, it is necessary to keep certain things in mind. Parents and the family are a major influence on the child and adolescents. Many a times, mental health problems are a result of the faulty communication patterns, ineffective interpersonal interactions, and inefficient discipline system in the family. Hence it is important to assess the family system as a whole and get information from family members, parents, guardians, siblings etc. Family history of any mental health problems/disorders also need to be known given the genetic predispositions and environmental influences of many disorders. Assessment also takes into account the normal pattern of child development and deviations from this. Further, in addition to family system, school and the peer group play a significant role in the child’s development. Hence, assessment should also include information from the school, teachers and the peer group.

<table>
<thead>
<tr>
<th>Self Assessment Questions 1</th>
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<tbody>
<tr>
<td>1) Mention any two theories of child and adolescent development.</td>
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<td>2) Describe the motor and sensory milestones in two years old children.</td>
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<tr>
<td>3) Give an account of milestones of personal and social behavior development in 5-6 years old children.</td>
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1.5 MENTAL DISORDERS OF CHILDHOOD AND ADOLESCENT

Some of the commonly occurring mental disorders seen in children and adolescents are described below.

1.5.1 Mental Retardation (MR)

It is also called Intellectual Disability (ID), and is characterized by below-average intelligence or mental ability and a lack of skills necessary for day-to-day living. People
Person with intellectual disability has limitations in two core areas. These areas are:

- **Intellectual functioning.** This refers to a person’s ability to learn, reason, make decisions, and solve problems. This is commonly measured as IQ (Intelligence Quotient). The average IQ is in the range of 90-110. A person is considered intellectually disabled if he or she has an IQ of less than 70.

- **Adaptive behaviors.** These are skills necessary for day-to-day life, such as being able to communicate effectively, interact with others, and take care of oneself. To measure a child’s adaptive behaviors, a specialist will observe the child’s skills and compare them to other children of the same age. Things that may be observed include how well the child can feed or dress himself/herself; how well the child is able to communicate with and understand others; and how the child interacts with family, friends, and other children of the same age.

Intellectual disability is thought to affect about 1% of the population. Of those affected, 85% have mild intellectual disability. This means they are just a little slower than average to learn new information or skills. With the right support, most will be able to live independently as adults.

### Signs and Symptoms

There are many different signs of intellectual disability in children. Signs may appear during infancy, or they may not be noticeable until a child reaches school age. It often depends on the severity of the disability. Some of the most common signs of intellectual disability are:

- Rolling over, sitting up, crawling, or walking late
- Talking late or having trouble with talking
- Slow to master things like potty training, dressing, and feeding himself/herself
- Difficulty remembering things
- Inability to connect actions with consequences
- Behavior problems such as explosive tantrums
- Difficulty with problem-solving or logical thinking

In children with severe or profound intellectual disability, there may be other health problems as well. These problems may include seizures, mental disorders, motor handicaps, vision problems, or hearing problems.

### Types of Mental Retardation

According to ICD 10 classification, mental retardation is of four types depending on Intelligence Quotient (IQ):

- **Mild MR** (IQ=50-70)
- **Moderate MR** (IQ=35-50)
- **Severe MR** (IQ=21-35)
- **Profound MR** (IQ=<20)
Causes for mental retardation are known in only 50-70% of cases and they could be biological or psychosocial causes.

The most common causes of intellectual disability are:

- Genetic conditions. These include Down’s Syndrome and Fragile X Syndrome.
- Problems during pregnancy. Alcohol or drug use, malnutrition, certain infections, or preeclampsia can interfere with fetal brain development and cause mental retardation.
- Problems during childbirth. Intellectual disability may result if a baby is deprived of oxygen during childbirth or born extremely premature.
- Illness or injury. Infections like meningitis, whooping cough, or measles can lead to intellectual disability. Severe head injury, near-drowning, extreme malnutrition, exposure to toxic substances such as lead; and severe neglect or abuse can also cause it.

Management

The primary goal of treatment is to develop the person’s potential to the fullest. Special education and training may begin as early as infancy. This includes social skills development to help the person function as normally as possible. Treatment modalities include,

i) Educational- special schools or classes, remediation tutoring, computer assisted instructions

ii) Pharmacological- Medication may be given for concomitant mental disorder such as attention deficit/ hyperactivity disorder (ADHD) or depression, agitation, aggression and tantrums.

iii) Behavior therapy, e.g. Applied Behavior Analysis based on learning theories, contingency management techniques

iv) Parental and family counseling

v) Individual supportive psychotherapy- Mildly impaired persons with good verbal skills may profit from individual supportive psychotherapy. Activity groups also help to improve socialization.

Prevention

Preventive approaches are as following:

**Genetic:** Prenatal screening for genetic defects and genetic counseling for families at risk for known inherited disorders can decrease the risk of inherited intellectual disability.

**Social:** Government nutrition programmes are available to poor children in the first and most critical years of life. These programmes can reduce disability associated with malnutrition. Early intervention in situations involving abuse and poverty will also help.

**Toxins:** Environmental programmes to reduce exposure to lead, mercury, and other toxins will reduce toxin-associated disability. However, the benefits may take years to become apparent. Increased public awareness of the risks of alcohol and drugs during pregnancy can help reduce the incidence of disability.

**Infections:** The prevention of congenital rubella syndrome is probably one of the best
examples of a successful programme to prevent one form of intellectual disability. Constant vigilance, such as limiting exposure to cat litter that can cause toxoplasmosis during pregnancy, helps reduce disability that results from this infection.

You will learn about mental retardation in more detail in Unit 1 of Block 3 of this Course (MPC 053).

### 1.5.2 Pervasive Developmental Disorders (PDDs)

Pervasive developmental disorders are characterized by impairment in social interaction, communication difficulties, and restricted and repetitive behaviors. PDDs include autistic disorder, as well as heterogeneous group of conditions that have similar features to autistic disorder. These are, Autistic disorder, Asperger’s syndrome, Rett’s disorder, Childhood disintegrative disorder, and Pervasive developmental disorder not otherwise specified.

#### i) Autistic disorder

This is commonest amongst pervasive developmental disorders. Autistic disorder affects 4 in 10,000 persons and male to female ratio is 3:1.

**Signs and symptoms**

Children with autism have difficulties relating to and communicating with other people.

When they’re babies, they do not look at others a lot. By two years of age, they often won’t respond to their name or smile at others. They might not change their pitch when they’re babbling so it won’t sound like a conversation. They do not imitate others with behavior like clapping or waving.

Children with autism will often repeat a particular behavior over and over, or become fixated on an object. For example, they might repeatedly turn lights on and off, or focus on the wheels of a toy car, rather than playing with the whole car and engaging in pretend play.

Many children with autism also have unusual sensory issues, although this isn’t required for a diagnosis. They might:

- be especially sensitive to sound, which is why they raise their hands to their ears to block out noise
- like the feel of objects, and smell and sniff at everything around them
- want to eat only foods with a certain texture – for example, they’ll be happy to eat soft, smooth food, but will refuse anything lumpy
- Use their peripheral vision a lot, or tilt their heads to look at objects from a particular angle.

Autistic disorder is an organic disorder, concordance in monozygotic (MZ) twins is higher than in dizygotic (DZ) twins. Associated genetic disorders include tuberous sclerosis and fragile X syndrome.

#### ii) Asperger’s disorder

It is characterized by autistic like disorder without significant delay in language or cognitive development. It may affect a subgroup of highly functioning autistic children. It’s etiology is unknown but studies suggest a relation to autistic disorder.
iii) **Rett’s disorder**: It is neurodegenerative disorder. It has strong genetic basis since it is only seen in girls. Studies indicate complete concordance in MZ twins.

iv) **Childhood disintegrative disorder (Heller’s syndrome)**: Childhood disintegrative disorder (Heller’s syndrome) is distinguished by at least two years of normal development before deterioration to the clinical picture of autistic disorder. Etiology is unknown but this disorder is associated with other neurological conditions, e.g., seizure disorder, tuberous sclerosis, metabolic disorders.

For management of PDDs early intensive special educational intervention is most beneficial. Thus early diagnosis is important. Family support and counseling is crucial; parents should be told that autistic disorder does not result from faulty upbringing. Parents often require strategies for dealing with the child and siblings. Associations and self-help groups exist for parents of children with autistic disorder.

### 1.5.3 Learning Disorder, Motor Skills Disorder and Communication Disorders

Learning disorders (reading disorder, mathematics disorder, disorder of written expression) and learning disorders not otherwise specified; Motor skills disorder (developmental coordination disorder); and Communication disorders (expressive language disorder, mixed receptive-expressive language disorder, phonological disorder, stuttering) share many characteristics and comorbidity. The prevalence of learning and motor skills disorders in general is about 5% and specifically ranges from 1% (for stuttering) to 3% for the other communication disorders.

#### Signs and symptoms

Children with learning disorders have average intellectual functioning and yet they show inability to read, write, spell, do mathematics at the class level despite adequate instruction, repetition and conducive academic environment. On evaluation using standardized test of academic achievement they show errors of omission, reversals, substitution, problems of phonic coding and decoding, visuo-spatial errors etc.

Generally learning, developmental coordination and communication disorders often coexist with one another and with attention deficit and disruptive behavior disorders.

#### Treatment

Low self esteem, school failure and dropping out are common with the disorders. Treatment for the disorders is usually provided in school and involves a multi-disciplinary approach involving teachers, school psychologists, special educators and parents. Resource rooms, special class placement, and individualized educational programme (IEP) may be necessary. Speech therapy is often required with communication disorders. Psycho education is crucial and counseling can be very helpful for the individual as well as the family.

### 1.5.4 Attention Deficit Hyperactivity Disorder

Attention-deficit hyperactivity disorder (ADHD) prevalence is probably 3-5%; the male to female ratio is 3-5:1.

#### Signs and symptoms

Inattention, hyperactivity (restlessness in adults), disruptive behavior, and impulsivity are common in ADHD. Academic difficulties are frequent as are problems with
relationships. The symptoms can be difficult to define as it is hard to draw a line at where normal levels of inattention, hyperactivity, and impulsivity end and significant levels requiring interventions begin. To be diagnosed, symptoms must be observed in two different settings for six months or more and to a degree that is greater than other children of the same age.

Based on the presenting symptom, ADHD can be divided into three subtypes—predominantly inattentive, predominantly hyperactive-impulsive, or combined type if criteria for both the other types are met.

An individual with inattention may have some or all of the following symptoms:

- Be easily distracted, miss details, forget things, and frequently switch from one activity to another
- Have difficulty maintaining focus on one task
- Become bored with a task after only a few minutes, unless doing something enjoyable
- Have difficulty focusing attention on organizing and completing a task or learning something new
- Have trouble completing or turning in homework assignments, often losing things (e.g., pencils, toys, assignments) needed to complete tasks or activities
- Does not seem to listen when spoken to
- Daydream, become easily confused, and move slowly
- Have difficulty processing information as quickly and accurately as others
- Struggle to follow instructions

An individual with hyperactivity may have some or all of the following symptoms:

- Fidget and squirm in their seats
- Talk nonstop
- Dash around, touching or playing with anything and everything in sight
- Have trouble sitting still during dinner, school, doing homework, and story time
- Be constantly in motion
- Have difficulty doing quiet tasks or activities

An individual with impulsivity may have some or all of the following symptom:

- Is very impatient
- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turn in games
- Often interrupts conversations or others’ activities

ADHD, particularly the predominantly hyperactive-impulsive type often coexists with conduct disorders or oppositional defiant disorder. ADHD also coexists with learning and communication disorder.
ADHD is thought to reflect subtle, yet unclear, neurological impairments. It is associated with prenatal trauma and early malnutrition. The incidence is increased in male relatives and concordance is greater in MZ than in DZ twins. ADHD children are often temperamentally difficult. In neurotransmitter systems, the clearest evidence is of noradrenergic dysfunction and soft neurological signs are common. Cerebral blood flow (CBF) studies show frontal hypoperfusion; thus frontal lobe dysfunction is suspected allowing for disinhibition. ADHD is probably not related to sugar intake; few patients (perhaps 5%) are affected by food additives. 20-25% of person with ADHD continue to show symptoms into adolescence. Some into adulthood, especially those with concomitant conduct disorder, become delinquent or later develop antisocial personality disorder.

Management

Management of ADHD requires both medication and behavioral treatments. Drugs reduce disruptive behavior and improve ability to concentrate. Psychological treatment involves school intervention in terms of classroom management, peer tutoring, and parent training. Thus a multimodality treatment including medication, individual psychotherapy, family therapy and special education is necessary for child and family; and even be crucial in moderate to severe cases, given the risk of delinquency.

Self Assessment Questions 2

1) List the types of mental retardation based on IQ.

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2) What are the signs and symptoms of autistic disorder.

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3) Describe the treatment of learning disorders.

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4) Mention the signs of an individual with impulsivity.

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1.5.5 Conduct Disorder

Conduct disorder is diagnosed in childhood or adolescence that presents itself through a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate norms are violated. Conduct disorder denotes a frequency and severity of acts that go beyond normal childhood mischiefs; and is marked by lack of remorse and callousness. These behaviors are often referred to as antisocial behaviors. Indeed, the disorder is often seen as the precursor to antisocial personality disorder. Prevalence ranges from 5-15%.

Signs and symptoms

The DSM-IV-TR definition of conduct disorder focuses on behaviors that violate the basic rights of others and major societal norms. It is diagnosed based on a prolonged pattern of antisocial behavior such as serious violation of laws and social norms and rules. There are no proposed revisions for the main criteria of conduct disorder in the DSM V; there is a recommendation by the work group to add an additional specifier for callous and unemotional traits. Almost all adolescents who have a substance use disorder have conduct disorder-like traits, but after successful treatment of the substance use disorder, about half of these adolescents no longer display conduct disorder-like symptoms. Therefore it is important to exclude a substance induced cause and instead address the substance use disorder prior to making a psychiatric diagnosis of conduct disorder.

Conduct disorder is associated with family instability, including victimization by physical or sexual abuse, family violence (propensity for violence correlates with child abuse), alcoholism and signs of severe psychopathology, e.g. paranoia and cognitive or subtle neurological deficits. It is crucial to explore for these signs that can guide treatment. Conduct disorder often coexists with ADHD and learning or communication disorders. Suicidal thoughts and acts and alcohol and drug abuse correlate with conduct disorder.

Some children with conduct disorder have low plasma dopamine hydroxylase levels. Abnormal serotonin levels have also been implicated.

Management

Multimodality treatment of conduct disorder include individual or family therapy, tutoring or special class placement (for cognitive or conduct problems). Teaching cognitive behavioral and moral reasoning skills is helpful. It is crucial to discover and fortify interests or talents to build resistance to the lure of crime if environment is noxious. If conduct disorder is severe, placement away from home may be indicated.

1.5.6 Oppositional Defiant Disorder (ODD)

ODD is diagnosed if a child does not meet the criteria for conduct disorder, but exhibits behavior such as losing temper, arguing with adults, repeated non-compliance of authority, being angry, spiteful, or vindictive. Oppositional defiant disorder can coexist with many disorders, including ADHD and anxiety disorders. It appears to result from parent-child struggles over autonomy, therefore occurrence increases in families with overly rigid parents and temperamentally active, moody and intense children.

Psychological interventions - individual or family therapy is the intervention of choice. Behavior modification can be helpful.
1.5.7 Feeding and Eating Disorders of Infancy or Early Childhood

i) **Pica:** It refers to repeated ingestion of a nonnutritive substance, inappropriate to developmental level for at least 1 month in infants who do not meet criteria for autistic disorder, schizophrenia, or Kleine-Levin syndrome. Prevalence is unclear; studies report 10-32% is associated with MR, neglect and nutritional deficiency e.g. iron or zinc. Lead or other poisonings can lead to pica. It usually stops in early childhood. Treatment involves testing for lead intoxication and treating if necessary. Since cravings for dirt and ice may relate to iron and zinc deficiencies, such deficiencies should be ruled out. Parent guidance may be necessary. Infrequently, aversive conditioning may also be necessary.

ii) **Rumination disorder:** It refers to repeated regurgitation for at least 1 month following a period of normal eating (in the absence of gastrointestinal dysfunction). Food is brought back into the mouth, ejected or rechewed and swallowed. There is no distress. The condition is rare with onset between 3 and 12 months of age. Little is known of outcome but it ranges from spontaneous remissions to malnutrition, to failure to thrive, to death. Gastrointestinal problems must be ruled out. Treatment involves parental guidance and behavioral techniques, which may include aversive behavior therapy when the disorder is severe.

iii) **Feeding and eating disorder of infancy or early childhood:** It refers to the disorder where children persistently eat inadequately for at least 1 month in the absence of a general medical condition or another causal mental condition that results in failure to gain weight and the loss of significant weight. Onset is before 6 years of age. Because many children with the disorder are temperamentally difficult or developmentally delayed or the caregivers lack patience or are neglectful, counseling of the caregivers is often crucial.

1.5.8 Tic Disorders

Tic disorders onset in childhood (before the age of 18), and are not due to the effects of medication or other medical condition. As many as 1 in 100 people may experience some form of tic disorder, usually before the onset of puberty.

Various types of tic disorders are as follows:

i) **Tourette’s disorder** (Gilles de la tourette’s syndrome)

Tourette syndrome is the more severe expression of a spectrum of tic disorders. There is evidence of genetic transmission with significantly greater concordance in MZ twins than in DZ twins. Prevalence is about 4-5 per 10,000; mean age of onset is 7 years of age; and the male-to-female ratio is 3:1.

**Signs and symptoms**

Tics are movements or sounds “that occur intermittently and unpredictably out of a background of normal motor activity”, having the appearance of “normal behaviors gone wrong”. The tics associated with Tourette’s change in number, frequency, severity and anatomical location. Waxing and waning—the ongoing increase and decrease in severity and frequency of tics—occur differently in each individual. Tics also occur in bouts, which vary for each person.

**Coprolalia** (the spontaneous utterance of socially objectionable or taboo words or phrases) is the most publicized symptom of Tourette’s, but it is not required for a diagnosis
of Tourette’s and only about 10% of Tourette’s patients exhibit it. Echolalia (repeating the words of others) and palilalia (repeating one’s own words) occur in a minority of cases, while the most common initial motor and vocal tics are, respectively, eye blinking and throat clearing.

In contrast to the abnormal movements of other movement disorders (for example, choreas, dystonias, myoclonus, and dyskinesias), the tics of Tourette’s are temporarily suppressible, nonrhythmic, and often preceded by an unwanted premonitory urge. Immediately preceding tic onset, most individuals with Tourette’s are aware of an urge, similar to the need to sneeze or scratch an itch. Individuals describe the need to tic as a buildup of tension, pressure, or energy which they consciously choose to release, as if they “had to do it” to relieve the sensation or until it feels “just right”. Examples of the premonitory urge are the feeling of having something in one’s throat, or a localized discomfort in the shoulders, leading to the need to clear one’s throat or shrug the shoulders. The actual tic may be felt as relieving this tension or sensation, similar to scratching an itch. Another example is blinking to relieve an uncomfortable sensation in the eye. These urges and sensations, preceding the expression of the movement or vocalization as a tic, are referred to as “premonitory sensory phenomena” or premonitory urges. Because of the urges that precede them, tics may be experienced as a voluntary, suppressible response to the unwanted premonitory urge. Published descriptions of the tics of Tourette’s identify sensory phenomena as the core symptom of the syndrome, even though they are not included in the diagnostic criteria.

ii) **Chronic motor or vocal tic disorder**

It is similar to Tourette disorder. Diagnostic criteria are the same except that there are either single or multiple motor tics or vocal tics, not both. The prevalence is much greater than that of Tourette’s disorder but its severity and social impairment generally are less. Chronic motor or vocal tic disorder and Tourette’s disorder frequently occur in the same families. The neurobiology appears to be the same and the treatment is identical to that of Tourette’s disorder.

iii) **Transient tic disorder**

Prevalence is unclear; nonrigorous surveys report that 2-24% of school children have some sort of tic. The male to female ratio is 3:1

**Signs and symptoms**

Transient tic disorders are characterized by:

- Single or multiple motor and/or vocal tics
- the tics occur many times a day
- the onset before 18 years
- the disturbance is not due to direct physiological effect of a substance (drug)

In most cases the tics are psychogenic, increasing during periods of stress and tending to remit spontaneously.

In mild cases treatment may not be needed; however, in severe cases behavioral techniques or psychotherapy is indicated. Medication used for other tic disorder is tried only in severe cases.
1.5.9 Elimination Disorders

Elimination disorders are disorders that concern the elimination of feces or urine from the body. There are two main types of elimination disorders that affect children and occasionally adults.

i) Encopresis - The voluntary or involuntary passage of stool in a child who has been toilet trained, typically over 4 years old. Prevalence is about 1% of 5 year old children. Encopresis is more common in boys than in girls.

Signs and symptoms

The DSM-IV recognizes two subtypes with constipation and overflow incontinence, and without constipation and overflow incontinence. In the subtype with constipation, the feces are usually poorly formed and leakage is continuous, and occurs both during sleep and waking hours.

In the type without constipation, the feces are usually well-formed, soiling is intermittent, and feces are usually deposited in a prominent location. This form may be associated with oppositional defiant disorder or conduct disorder, or may be the consequence of large anal insertions, or more likely due to chronic encopresis that has radically desensitized the colon and anus.

The chance of any physical disorder needs to be ruled out first. Inadequate toilet training can result in child parent power struggles and functional encopresis. Some children may have fear using the toilet. Those with constipation and overflow incontinence can get impacted, have pain on defecating and develop anal fissures. Those with constipation and overflow often have oppositional defiant or conduct disorders. Encopresis often has precipitants e.g. birth of a sibling or parental separation. Encopresis usually brings embarrassment and social ostracism. When encopresis is deliberate, associated psychopathology is usually severe. About 25% of patients also have enuresis. Encopresis can last for years but usually resolves.

Treatment: The child may require individual psychotherapy to address the meaning of the encopresis as well as any embarrassment or ostracism. Behavioral techniques often are helpful. Parental guidance and family therapy often is needed. Conditions such as impaction and anal fissures require consultation with a pediatrician.

ii) Enuresis (bedwetting) - Involuntary urination in children over the age of 5 years old, and is not due to a general medical condition. Prevalence during age 5 years is, 7% of boys and 3% girls; whereas during age 18 years, it is 1% of boys, and rare in girls. The diurnal subtype is the least prevalent and is more common in girls than in boys.

Signs and symptoms

According to DSM IV enuresis is characterized by:

a) Repeated voiding of urine into bed or clothes (whether involuntary or intentional).

b) The behavior is clinically significant as manifested by either a frequency of twice a week for at least 3 consecutive months or the presence of clinically significant distress or impairment in social, academic, occupational, or other important areas of functioning.

c) Chronological age is at least 5 years (or equivalent developmental level).

d) The behavior is not due exclusively to the direct physiological effect of a substance
(e.g., a diuretic) or a general medical condition (e.g., diabetes, spina bifida, a seizure disorder).

e) Enuresis can be of three types: Nocturnal only; Diurnal only; and Nocturnal and Diurnal both.

In some patients bladders tend to be small requiring frequent voiding. It does not seem to be related to a specific stage of sleep as do sleepwalking or sleep terror disorders. Many patients have no coexisting mental disorder and impairment reflects only the conflict with caregivers, loss of self esteem and social ostracism. Enuresis is likely to coexist with other disorders and can be precipitated by such events as sibling birth or parental separation. Spontaneous remissions are frequent at ages 6-8 and puberty.

Management

i) Pharmacological: Medication is used, but is effective along with psychological interventions.

ii) Behavioral approaches: Record dry nights on a calendar and reward dry nights with a star and 5-7 consecutive dry nights with a gift. A bell and pad apparatus is a successful treatment but is cumbersome.

iii) Psychotherapy: It is not recommended unless psychopathology or other problems coexist, such as reduced self esteem. The parental guidance related to the management of the disorder is often necessary.

1.5.10 Other Disorders

i) Anxiety Disorders

Anxiety disorders in children and adolescents include generalized anxiety disorder, separation anxiety disorder, school phobia, social phobia, obsessive compulsive disorder, posttraumatic stress disorder and panic disorders. The disorders may result from physical or sexual abuse.

Separation anxiety disorder is characterized by children worrying constantly that some harm will befall their parents or themselves when they are away from their parents. It is often a main cause of school phobia. Though genetic transmission is not clear, affected children have been found to have parents with a history of that disorder as well as current panic disorder, agoraphobia or depression. There may be overly strong attachment bond and insecure mother–infant security system.

Management of anxiety disorders involves multimodal treatment including individual psychotherapy, family therapy, parental guidance and counseling, and behavior modification.

ii) Selective Mutism

It is a rare disorder and more common in girls. Diagnostically, it refers to a child who both seeks and comprehends, refuses to talk for at least 1 month (but this period is not limited to the first month of school) in social situation. It begins between age 4 and 8, and usually resolves in weeks to months. It is associated with parental overprotection, parental ambivalence, communication disorders, shyness and oppositional behavior. Treatment can include individual psychotherapy and parents counseling. Serotonin specific reuptake inhibitors (SSRIs) may also be helpful.
iii) Reactive Attachment Disorder of Infancy or Early Childhood

Diagnostically, grossly inadequate caretaking (persistent disregard of physical or emotional needs or repeated change of caretaker) results in markedly disturbed social relatedness in a child who is younger than 5 years. Physically, head circumference is generally normal, weight very low, height somewhat short, and pituitary functioning is normal. There may also be presence of low socioeconomic status and mothers who are depressed, isolated and have experienced abuse. The disturbance is not due to MR or autistic disorder. The earlier the intervention, the more reversible the disorder.

It is of two types:

a) Inhibited type - characterized by failure to initiate or respond to interactions accompanied by apathy, passivity and lack of visual tracking.

b) Disinhibited type - characterized by indiscriminate and shallow sociability.

iv) Stereotypic Movement Disorder

Diagnostically there are repetitive seemingly nonfunctional behaviors for at least 4 weeks e.g. hand shaking, rocking, head banging, nail biting, nose picking, hair pulling that markedly interfere with normal activities or cause physical injury. The disorder is common in MR. It is not diagnosed for behaviors associated with obsessive compulsive disorder, PDDs or trichotillomania. Increased dopamine activity seems to increase stereotypic movements. Pervasive developmental disorder or tic disorder must be absent. Treatment varies if movements increase with frustration, boredom or tension.

v) Childhood Schizophrenia and Depression

Several studies confirm that some children have delusions or hallucinations (auditory or visual). Nevertheless few children or young adolescents are schizophrenic, and delusions, hallucinations and thought disorder are difficult to diagnose in children. Some children diagnosed as schizophrenic are diagnosed with mood disorder when followed to adolescence. Childhood depression includes behaviors such as withdrawal, crying, avoidance of eye contact, physical complaints, poor appetite, and even aggressive behavior and in some cases, suicide.

Treatment includes antipsychotic medications (although research is limited in this regard), psychotherapy and family therapy. An important aspect of psychological treatment with children is providing a supportive emotional environment that will facilitate effective emotional expression and learning adaptive coping strategies.

Suicide: Suicidal behavior is increasing in adolescents and children. Although serious attempts and completed suicides are rare in children younger than 13 years, suicidal ideation, threats and less serious gestures are much more frequent and often a precipitant to hospitalization. It correlates with depression, aggressive behavior and alcohol abuse. Girls have more suicidal ideation and make more suicidal gestures or attempts. Serious attempts and successful suicides correlate with being male and the availability of alcohol, illicit drugs or medications which lower impulse control and can be used to overdose. Angry and impulsive children as well as children suffering from recent emotional trauma may also be suicidal.

vi) Others

Substance related, gender identity, eating, somatoform, sleep and adjustment disorders can also be diagnosed during childhood and adolescence.
**1.6 ROLE OF FAMILY IN CHILD AND ADOLESCENT MENTAL HEALTH**

Family has a strong influence on the mental health of children and adolescents. Family dynamics play a vital role in their mental health and illness. Child rearing practices can retard or accelerate development of child mental health. Psychologically and physically broken homes fail to provide a proper and conducive atmosphere for the growth and development of the child. It lacks the warmth, love, care and affection that fosters the self-esteem of the child and makes him/her a good human being. Schizophrenogenic parents and refrigerator parents who are cold and apathetic, produce autistic and psychotic child behavior.

Child abuse and neglect is of serious concern which may lead to negative behaviors and disorders in the children. Abusing parents have often been abused themselves in their childhood. They are also antisocial; and suffer from depression and substance abuse. Child sexual abuse has been on the rise which seriously hampers the mental health of our children. Cases of AIDS has also presented the mental health professionals with a multitude of difficult problems, for example, the care of young patients from lower socioeconomic groups. Already grossly inadequate because of insufficient resources, they are further burdened by HIV related illness or the death of parents and relatives.

Family is the first and the most important source of nurturance which plays a crucial role in the physical as well as mental health of our children and adolescents. Awareness and sensitization through guidance and counseling programmes will go a long way to create an enabling family atmosphere for enhancing the mental health of our future generation.

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<td>4) Differentiate between enuresis and encopresis.</td>
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1.7 LET US SUM UP

The area of child and adolescent mental health has been neglected in the past and is only in the recent years that it has drawn attention of mental health professionals. The prevalence of child and adolescent mental disorders is high and estimated prevalence rate in our country ranges from 8.2-17.2 percent. Most common disorder in this population is mental retardation, followed by special symptoms like enuresis and speech disorder. It is estimated that ten per cent of the child population is in need of special care and treatment. Only one percent gets some care and treatment.

Early diagnosis of various mental disorders such as mental retardation, ADHD, PDDs, conduct disorders, oppositional defiant disorders, eating disorders, rumination disorders, tics, elimination disorders are most important because these disorders affect schooling, learning and overall development of the child. Early identification could be vital in psychoeducation, behavioral treatment, family therapy and social intervention which could help in minimizing disability. Due to paucity of trained personnel and resources, it is essential that not only mental health professionals but also various other stakeholders in this field such as school teachers and caregivers need to be sensitized to these issues so that prevention efforts can further reduce the prevalence of these conditions.

1.8 ANSWERS TO SELF ASSESSMENT QUESTIONS

Self Assessment Questions 1

1) Two theories of development are: (a) Erickson’s theory of development has proposed eight stages of development throughout life and at each stage there is a conflict, resolution of which will lead to proper development. His work emphasizes the individual’s adaptation to society; (b) Jean Piaget’s theory of cognitive development which progresses through four stages, views child as an active problem solver.

2) Motor and sensory milestones of development in 2 years old children are as follows: can run well, kick large ball, climbs stairs alone, and fine motor skills increase.

3) Personal and social behavior development in 5-6 years old children are as follows: can dress and undress oneself, plays competitive games and ties shoe laces.

Self Assessment Questions 2

1) Based on IQ, the types of mental retardation are, Mild MR (IQ 50 – 70), Moderate MR (IQ 35 – 50), Severe MR (IQ 21 – 35), and Profound MR (IQ < 20).

2) Signs and symptoms of autistic disorder are difficulties relating to and communicating with other people; repetition of particular behaviors; and unusual sensory issues.

3) Treatment of learning disorders requires a multi disciplinary approach involving teachers, school psychologists, special educators and parents. Resource rooms, special class placement, and individualized educational programme (IEP) may be necessary. Psycho education is crucial and counseling can be very helpful for the individual as well as the family.
Signs of an individual with impulsivity are as follows:

- Is very impatient
- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turn in games
- Often interrupts conversations or others’ activities

Self Assessment Questions 3

1) Management of conduct disorder includes individual or family therapy, tutoring or special class placement (for cognitive or conduct problems). Teaching cognitive behavioral and moral reasoning skills is helpful. It is crucial to discover and fortify interests or talents to build resistance to the lure of crime if environment is noxious. If conduct disorder is severe, placement away from home may be indicated.

2) Rumination disorder refers to repeated regurgitation for at least 1 month following a period of normal eating (in the absence of gastrointestinal dysfunction). Food is brought back into the mouth, ejected or rechewed and swallowed.

3) Tics are movements or sounds “that occur intermittently and unpredictably out of a background of normal motor activity”, having the appearance of “normal behaviors gone wrong”.

4) Enuresis is involuntary urination in children over the age of 5 years old, and is not due to a general medical condition; whereas encopresis is the voluntary or involuntary passage of stool in a child who has been toilet trained, typically over 4 years old.

1.9 UNIT END QUESTIONS

1) Describe the epidemiology, etiology, clinical features and management of mental retardation.

2) Describe the Pervasive Developmental Disorders.

3) Explain the signs and symptoms of ADHD.

4) Describe the types of tic disorders.

5) Describe the various anxiety disorders in children and adolescents.

6) Describe the clinical features and management of elimination disorders.

1.10 GLOSSARY

Adolescence: the period from beginning of puberty until maturity, commonly starting at the age of 12 years and completing by 18 years.

Attention: conscious and wilful focusing of mental energy on one object.

Autism: a pervasive developmental disorder that has its onset before the age of 3 with delays in social development, communication or play.

Child: any human between infancy and puberty.

Conduct: self-conscious and self-regulatory behaviour as determined by the standards set for the person by his/her social environment.
Development Milestone: a skill regarded as having special importance in development of infants and usually associated with a particular age range.

Diagnosis: the use of scientific or clinical methods to establish the cause and nature of a person’s illness.

Encopresis: an elimination disorder consisting of involuntary defecation not due to organic defect, occurring in a child of 4 years or older.

Enuresis: involuntary passage of urine after the age by which full control of urinary excretion should have been attained; it may be organic or functional.

I.Q.: Intelligence Quotient. The ratio of a subject’s intelligence to his/her chronological age.

Tics: a brief, sudden, rapid, recurrent, rhythmic, stereotyped, irresistible movement or vocalization.

Prevalence: the number of cases of a disease present in a specified population at a given time.

1.11 REFERENCES


1.12 SUGGESTED READINGS

Child Mental Health In India (1992), Edit.-Savita Malhotra, Anil Malhotra, Vijoy Varma. Macmilan India Limited.

