



## Child Psychiatry

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**Doctor's note**   **Team's note**   Not important   **Important**   **Book's note**



## Mind Map

### Child Psychiatry

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**2. Intellectual Disabilities.**

**3. Autism Spectrum Disorder.**

**4. ADHD.**

**5. Elimination Disorders.**

**6. Depression in Children.**

**7. Separation Anxiety Disorder.**

## Definitions, Assessment & Classification

**Child psychiatry is concerned with the assessment and treatment of children's emotional, behavioral and relationship problems.**

Children are not small adults, but immature and developing individuals. Childhood is a period of life characterized by change and the necessity for adaptation. During childhood, the child undergoes a remarkable transformation from a helpless dependent infant to an independent self-sufficient individual with his own views and outlook capable of living separately from his family. In order to judge whether any observed emotional, social or intellectual functioning is abnormal, it has to be compared with the corresponding normal range for the age group.

The practice of child psychiatry differs from that of adult psychiatry in several important aspects:

1. Children are generally less able to express themselves in words. Therefore, evidence of disturbance is based more on observations of behavior made by parents, teachers and others.
2. Greater attention must be paid to the stage of development of the patient and the duration of the disorder in order to decide what is normal and what is abnormal.
3. The treatment of children makes less use of medication or other methods of individual treatment. Instead, the main emphasis is on changing the attitudes of parents, reassuring and retraining children, working with the family and coordinating the efforts of others who can help children, especially at school.

The family is a most powerful force for the promotion of health as well as for the production of disturbance in the child's life. Assessment of parenting qualities, the marital relationship and the quality of the family interaction are essential components of child psychiatric practice. It is a frequent observation that it is the parents who are disturbed and not the child.

Children development has many aspects: **intellectual, emotional, social, and psychodynamic.**

## **Assessment:**

Child assessment follows the usual steps in the adult assessment with the following important considerations:

- Flexibility is essential.
- Both parents should be asked to attend the assessment interview, and it is often helpful to have other siblings present.
- The interview room should be large enough to seat the family comfortably and also allow the children to use play material in a relaxed manner.
- Detailed personal history is required.
- **Obtaining detailed family interaction is essential:**
  - Quality of parenting.
  - Parent-child relationship.
  - Pattern of family relationships.
  - Separation from caretaker for more than a week.
- General health: eating, elimination, sleeping and physical complaints.
- School: attendance, achievement, and relationship with schoolmates and teachers.
- Attention span, concentration and activity.

## **Observation of the child should include:**

- 1) Degree of attachment to parents and ease of separation.
- 2) Abnormal movements e.g. tics.
- 3) Nutritional status.
- 4) Evidence of neglect or physical abuse.

## Childhood psychiatric disorder

### Neurodevelopmental Disorders:

1. Intellectual Disabilities.
2. Autism Spectrum Disorder.
3. Attention Deficit/Hyperactivity Disorder.
4. Communication Disorders.
5. Specific Learning Disorder.
6. Motor Disorders.
7. Other Neurodevelopmental Disorders.

### Feeding and Eating Disorders:

1. Pica.
2. Rumination Disorder Avoidant/Restrictive Food.
3. Intake Disorder.

### Elimination Disorder:

1. Enuresis.
2. Encopresis.

Children are also susceptible to most of previously mentioned adult psychiatric disorders: phobia, anxiety disorders, depression ...etc.

## Intellectual Disabilities (Mental Retardation)



**Intellectual impairment starting early in life, associated with educational and social disabilities.**

### Case:

Sami is an 8-year-old boy brought by his mother to child psychiatry clinic because of delayed intellectual development; he does not understand what is said to him, cannot serve himself in feeding, dressing, and always needs an assistant in toilet.

## Diagnostic Criteria

**A. Significantly sub average intellectual functioning:** an IQ of approximately 70 or below on an individually administered IQ test.

**B. Concurrent deficits or impairments in present adaptive functioning** (i.e., the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least two of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety.

**C. The onset is before age 18 years.**

## Comorbidity

Psychiatric disorders are common in intellectually disabled individuals due to: possible common genetic etiology, organic brain disease, reaction to the stigma of sub normality, family reactions e.g. overprotection, punishment. And consequences of abnormalities associated with handicap e.g. lack of social skills. Diagnosis of psychiatric disorders is sometimes difficult because symptoms may be modified by low intelligence and poor verbal fluency.

Depression is common but less likely to be expressed verbally.

**Adjustment disorders are frequently encountered in mildly retarded people.**

Hyperactivity occurs commonly.

Schizophrenia may occur. The main features include further deterioration of mental functions with disturbed behavior and social adjustment. Delusions and hallucinations are less likely to be expressed clearly.

## Causes

1. **Congenital defects.**
2. **Intrauterine infections.**
3. **Perinatal:** anoxia, cerebral hemorrhage.
4. **Postnatal:** encephalitis, meningitis...
5. **Psychosocial causes;** chronic lack of intellectual stimulation.

## Types

- Mild (**IQ: 50-70**) about 75% of cases; educable.
- Moderate (**IQ: 35-49**) about 15% of cases; trainable.
- Severe (**IQ: 20-34**) about 8% of cases.
- Profound (**IQ: below 20**) about 2% of cases.

## Assessment

- 1) Detailed history including: family history of inherited diseases.  
Prenatal, perinatal and neonatal history.
- 2) Development and milestones.
- 3) Physical examination.
- 4) Behavioral assessment.
- 5) IQ test.

## Management

- 1) Special education and training.
- 2) Family support and education.
- 3) Residential care for severe cases.
- 4) Regular reassessment and follow up.

Degree of Mental Retardation	Preschool Age (0 to 5 years) Maturation and Development	School Age (6 to 20 years) Training and Education
<b>Mild</b>	Can develop social and communication skills; minimal retardation in sensorimotor areas; often not distinguished from normal until later age	Can learn academic skills up to <b>approximately 6<sup>th</sup> grade level by late teens</b> ; can be guided toward social conformity
<b>Moderate</b>	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; <b>can be managed with moderate supervision</b>	Can profit from training in social and occupational skills; unlikely to progress beyond <b>second-grade level in academic subjects</b> ; may learn to travel alone in familiar places
<b>Severe</b>	Poor motor development; speech minimal; generally unable to profit from training in self-help; little or no communication skills	Can talk or learn to communicate; <b>can be trained in elemental health habits</b> ; profits from systematic habit training; unable to profit from vocational training
<b>Profound</b>	Gross retardation; minimal capacity for functioning in sensorimotor areas; needs nursing care: constant aid and supervision required	Some motor development present; may respond to minimal or limited training in self-help



## **Pervasive developmental disorder (PDD)**

PDDs: affect multiple areas of development (social, language, emotional & behavioral). They emerge before the age of 3 years and cause persistent dysfunction. **PDDs includes five disorders:**

1. Autistic disorder.
2. Asperger's disorder.
3. Rett's disorder.
4. Childhood disintegrative disorder.
5. Pervasive developmental disorder not otherwise specified.

## **Childhood Disintegrative Disorder (CDD)**

Heller's syndrome: marked regression in several areas of functioning after at least 2 years of normal development. Deterioration over several months of intellectual, social and language function occurring in 3 & 4 year olds with previously normal functions.

After the deterioration, the children closely resembled children with autistic disorder.

## **Oppositional Defiant Disorder (ODD)**

Negativistic, hostile behavior; refusal to comply with adults, argument and annoyance of others, loss of temper, anger outburst, spiteful / vindictive behavior. ODD may coexist with ADHD, conduct and many other disorders. It's occurrence increases in families with rigid parents, and intense moody children.

### **Treatment:**

- Psychological (individual / family).
- Behavior modification.
- Carbamazepine or lithium.

**Asperger's Disorder** although it is a PDD, no significant delays in language, cognitive development, or self-help skills. **Features:** impairment in social or emotional reciprocity interaction (eye contact, facial expression).

**Rett's disorder** is a progressive PDD. Prevalence of 6 / 100,000 girls. It has its onset after some months of normal development. **Features:** impaired speech, communicative and social skills. The head circumference growth decelerates and produces microcephaly. Poor muscle coordination and gait disturbances.

## Conduct Disorder (CD)

1. **Features:** severe and prolonged antisocial behavior in older children and teenagers; aggressive or destructive behavior, rebellion against parents, lying, stealing, vandalism, fire setting & truancy.
2. **Etiology:** adverse psychosocial situations play major roles e.g. broken family, unstable relationships, and poverty.
3. **Treatment:** explore the environmental settings, social & family situations. Family and individual therapies .Haloperidol, lithium and carbamazepine have been found effective in controlling aggression and impulsivity.
4. **Prognosis:** some teenagers continue to have antisocial behavior after the age of 18 years (antisocial personality disorder).

## Attention-Deficit Hyperactivity Disorder (ADHD)

### Case:

Waleed is a 9-year-old boy, has impulsive behavior, excessive movement in the class and inability to settle in one place.

The prevalence is about 4 %. M > F (4:1).

### Features:

- Diminished **attention** and concentration.
- **Over activity in more than one situation; constant movement** with inability to settle.
- Interfering and intruding on others.
- **Impulsivity.**
- Recklessness, prone to accidents.
- Disobedience and aggression.
- Learning difficulties.

**Etiology:** The causes are unknown. Several factors have been suggested to play some role:

- Prenatal toxic exposures & prematurity.
- Perinatal trauma and early malnutrition.
- Non specific subtle CNS disease.
- Specific learning disabilities.

## **Treatment:**

**Medications:** stimulant medications have been found to reduce hyperactivity and improve attention span in 75 % of cases, the exact mechanism of action is not yet known. However, stimulation of cortical inhibition is suggested. **Dextroamphetamine (Dexedrine); for children > 3years and methylphenidate (Ritalin, Concerta); for children > 6 years in the morning and afternoon,** doses are adjusted according to the response. Possible side effects include restlessness, tremor, sleep disturbances, growth inhibition (growth chart is needed) and dependence.

**Psychological treatment:** individual and family therapy. Special education.

**Prognosis:** hyperactivity improves with age in most cases. Some cases may continue in adult life; mainly those with low intelligence and major learning problems.

[youtube.com/watch?v=dM9L0T\\_YFgg](https://www.youtube.com/watch?v=dM9L0T_YFgg)

## **Separation Anxiety Disorder**

Excessive anxiety concerning separation from home or from major attachment figure for at **least 4 weeks**.

### **Features:**

- **Excessive distress when separation is anticipated.**
- Excessive worry about possible harm befalling or losing attachment figures.
- Reluctance to go to school because of fear of separation.
- Excessive fear when left alone.
- Reluctance to sleep away from attachment figure.

The disorder may be initiated by a frightening experience or insecurity in the family, and is often maintained by overprotective attitude of the parents.

### **Treatment:**

Psychological (individual / family) therapy. Behavior therapy. Tricyclic antidepressants (e.g. imipramine 25mg/day).

## **Depression in Children**

Depressive disorder in children is not uncommon. Child may not express his low mood verbally. Therefore, thorough assessment is required. Depression may be distinguished from normal lowered mood by associated **Features:**

- Significant loss of pleasure (anhedonia) in all areas of interest.
- Withdrawal from social activities.
- Deterioration in school performance (poor concentration and motivation).
- Irritability.

Childhood depression is usually self-limiting, but may become chronic or recurrent. Masked depression may present as a behavior disorder. Depression in children may present mainly with somatic symptoms (depressive equivalents).

**Treatment** may include a variety of measures discussed earlier in chapter 9. Antidepressants may be started with low doses. Psychosocial treatment approaches are important.

## Elimination Disorders

### A. Functional Enuresis:

- Repeated involuntary voiding of urine after the age at which continence is usual (5 years) in the absence of any identified physical disorder.
- Nocturnal = bed wetting (at night).
- Diurnal = during waking hours.

- **Primary enuresis:** If there has been no preceding period of urinary continence for at least 12 months.

- **Secondary enuresis:** If there has been period of urinary continence for 12 months.

- It is likely to coexist with other psychological distress (e.g. sibling birth, parental discord...).
- No specific etiology.
- Delay in maturation of some brain centers.
- Psychological sequel of enuresis: conflicts with parents, low self-esteem, social ostracism.

### Treatment:

- Search for and treat any possible physical disease e.g. repeated urinary tract infections (UTIs), diabetes, epilepsy...
- Treat any associated emotional problem.
- Advice to parents (to avoid criticism...).
- Fluid restrictions before bedtime.
- Going to toilet before sleep.

#### ■ Behavior therapy:

- Record dry nights on a calendar and reward dry nights with a star and 7 consecutive dry nights with a gift (star chart technique).
- A bell and pad apparatus is helpful.
- Bladder training.

#### ■ Medications:

- Imipramine (a tricyclic antidepressant) 10 – 50 mg at night can reduce bed wetting significantly, but relapse rate after discontinuing treatment is high.
- Desmopressin (an analogue of vasopressin) can be helpful but there is a risk of fluid overload.

## **B. Functional Encopresis:**

- Repeated passing of feces into inappropriate places after the age at which bowel control is usual (4 years).
- Physical causes should be ruled out: e.g. chronic constipation with overflow incontinence.
- Stressful events at home may precipitate the condition.
- Assessment should include parental attitudes, emotional factors in the child, and the child's concern about the problem.
- Behavior therapy (rewarding success and ignoring failure) often is helpful.
- Parental guidance and family therapy is required.

## **Phobias in Children**

Phobias are common, and usually normal in children. Common feared objects and situations include: animals, strangers, darkness, and loud noisy voices. Most childhood phobias improve without specific treatment measures. However, parents should adopt a reasonable reassuring approach. Behavior treatment is required if phobia persists.

### **School Phobia:**

- **Irrational fear of going to school associated with unexplained physical complaints such as headache, diarrhea, abdominal pain or feeling sick.**
- Boys and girls are equally affected.
- Complaints occur on school days not in weekends.
- It occurs most commonly at the commencement of schooling, change of school or beginning of intermediate or secondary school.
- Academic achievement is good or superior.

### **Possible precipitating factors:**

- Separation anxiety (mainly in younger children) child wants to stay with a major attachment figure.
- Mothers are frequently overprotective.
- Minor physical illness.
- Upsetting event either at home (e.g. parental discord), or at school (e.g. criticism).
- General psychiatric problems e.g. low self-esteem and depression (in older children).

### **Treatment:**

- Identify and treat possible causes.
- Early graded return to school (most helpful).
- Both parents should participate.
- School and teachers should be involved.
- Drugs have some role in reducing anxiety or depressive features.

**School Refusal:** a pattern of behavior that can have many psychosocial causes and may not be a disorder (e.g. a form of rebellion).

## **Autistic Disorder (AD)**

### **Case:**

Riyadh is a 6-year-old boy, does not interact well with his relatives, has marked gaze avoidance, and language impairment. His motor development is normal.

AD is a severe pervasive disorder of emotions, speech and behavior starting in early childhood after a brief period of normal development (before 30 months of age). It occurs at a rate of 4 – 8 / 10,000, affecting boys more than girls.

### **Features:**

- Impaired reciprocal **social** interactions (even with parents). Gaze avoidance is a characteristics feature.
- Impaired **emotional** responses (emotions toward parents, strangers and inanimate objects are almost the same).
- Impaired **language** development (interpersonal verbal communication is markedly affected).
- Restricted behavioral repertoire.

### Other features:

- **Resistant to change the routine and transition** (e.g. having breakfast before a bath when the reverse was, may evoke temper tantrums).
- Preoccupation with certain objects and rituals with resistance to change (e.g. the same dress, food ...).
- Labile mood and non-specific anger and fear.
- Stereotypies, mannerisms, and grimacing.
- Disturbed sleep.
- Varying degrees of mental retardation are present in 75 % of cases.
- Epilepsy may develop in adolescence in 20 – 25 % of severe cases.
- Enuresis and encopresis may occur.

**Causes:**

Unknown organic brain insult is suggested.

**Treatment:**

No specific medication, special school: programs to promote behavioral skills and to reduce undesirable behavior. Family education and support.

**Prognosis:**

Varies depending on several factors such as IQ, language development, and early treatment. About 15 % can lead independent life. About 50 % can acquire some useful speech but continue to have disturbed behavior and cold emotions.

## Summary

### 1- Mental retardation

Intellectual impairment starting early in life, associated with educational and social disabilities.

#### Diagnosis:

- A. Significantly sub average intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test.
- B. Concurrent deficits or impairments in present adaptive functioning.
- C. The onset is before age 18 years.

#### Causes:

1. Congenital defects. 2. Intrauterine infections. 3. Perinatal: anoxia, cerebral hemorrhage. 4. Postnatal: encephalitis, meningitis... 5. Psychosocial causes; chronic lack of intellectual stimulation.

#### Type:

- Mild (IQ: 50-70); educable. (Can learn academic skills up to approximately 6<sup>th</sup> grade level by late teens).
- Moderate (IQ: 35-49); trainable. (Can profit from training in social and occupational skills; unlikely to progress beyond second-grade level in academic subjects).
- Severe (IQ: 20-34).
- Profound (IQ: below 20).

### 2- Attention-Deficit Hyperactivity Disorder (ADHD)

- Diminished attention and concentration.
- Over activity in more than one situation; constant movement with inability to settle.
- Interfering and intruding on others.
- Impulsivity.

### 3- Separation Anxiety Disorder

Excessive anxiety concerning separation from home or from major attachment figure for at least 4 weeks.



## 4- Autistic Disorder (AD)

AD is a severe pervasive disorder of emotions, speech and behavior starting in early childhood after a brief period of normal development (before 30 months of age).

### Features:

- Impaired reciprocal **social** interactions (even with parents). Gaze avoidance is a characteristics feature.
- Impaired **emotional** responses (emotions toward parents, strangers and inanimate objects are almost the same).
- Impaired **language** development (interpersonal verbal communication is markedly affected).

### Treatment:

No specific medication, special school: programs to promote behavioral skills and to reduce undesirable behavior. Family education and support.

## 5- School Phobia

Irrational fear of going to school associated with unexplained physical complaints such as headache, diarrhea, abdominal pain or feeling sick.

## 6- Elimination Disorders

### A. Functional Enuresis:

- Repeated involuntary voiding of urine after the age at which continence is usual (5 years) in the absence of any identified physical disorder.
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**Primary enuresis:** If there has been no preceding period of urinary continence for at least 12 months.

**Secondary enuresis:** If there has been period of urinary continence for 12 months.

## MCQ's

- 1) A 9 year-old boy student in the third grade brought by his parents because of impulsive behavior, learning difficulties, disobedience, excessive movement in the class and inability to settle in one place. Before initiating treatment for this case it is important to do:**
- A. Liver function tests.
  - B. Growth chart.
  - C. Thyroid function test.
  - D. Complete blood count.
- 2) A 10 year-old girl has delayed milestones, increasing distractibility, poor academic performance, speech problems and destructive behavior. The most appropriate immediate step is:**
- A. Brain CT scan.
  - B. Growth chart.
  - C. IQ test.
  - D. Electroencephalogram (EEG).
- 3) A 5 year-old boy was brought by his mother because she has noticed that he does not interact well with his relatives, does not speak properly and does not laugh as other children. Otherwise, his milestone development was comparable to his normal siblings. The most likely diagnosis is:**
- A. Disintegrative disorder.
  - B. Mental retardation.
  - C. Separation Anxiety.
  - D. Autistic disorder.

**4) A 6 year-old girl was seen at child psychiatry clinic because of bed wetting. Her mother always takes her to toilet before sleep. Her father kept asking her to clean her bed in the morning. The following medication can reduce her symptoms:**

- A. Imipramine.
- B. Propranolol.
- C. Fluoxetine.
- D. Valproate.

**5) An 11 year-old girl was referred from pediatric clinic because she has repeated unexplained abdominal pain, vomiting, diarrhea, and headache. However, during the weekends she enjoys visiting relatives and has no symptoms. The most likely diagnosis is:**

- A. Somatization disorder.
- B. Malingering.
- C. School phobia.
- D. Asperger's syndrome.

**ANSWERS**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
B	C	D	A	C



For any suggestions:

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