



**NARAYANA**  
COLLEGE OF NURSING

Unit – XI

Nursing management of child hood and adolescent  
disorders including mental deficiency

*Dr. Anjani devi M.Sc(N).,*

*Ph.D,M.B.A*

*Associate Professor cum HOD*

*Department of Mental Health Nursing*

*Narayana college of Nursing*

## **Disorders Usually 1<sup>st</sup> Diagnosed in Infancy, Childhood, & Adolescence**

### **Core Concept Of Diagnostic Group:**

- Categorized by time of onset
- Predominantly disorders of abnormal development and maturation.
- Emphasis of disorders is on the inability of the individual to attain certain normal developmental milestones and the associated functions, capabilities, & behaviors.

# Classification (ICD10)

- F70-F79 Mental retardation
- F70 –Mild Mental retardation
- F71-Moderate Mental retardation
- F72-Severe Mental retardation
- F73-Profound Mental retardation

# F80-F89-Disorders of psychological development

- F80- Specific developmental Disorders of speech and language
- F81- Specific developmental Disorders of Scholastic skills
- F82- Specific developmental Disorders of Motor function
- F83-Mixed Specific developmental Disorders
- F84- Pervasive developmental Disorders of

## F90-F98 Behavioral and emotional disorders with onset usually occurring in childhood and adolescence

- F90- Hyperkinetic disorders
- F91-Conduct disorders
- F93- Emotional disorders with onset specific to childhood
- F94-Disorders of social functioning with onset specific to childhood and adolescence.
- F95- Tic Disorders
- F98-Other behavioral and emotional disorders with onset usually occurring in childhood and adolescence.

# 10 DIAGNOSTIC SUBGROUPS (DSM-IV-TR)

- 1) ***Mental Retardation***
- 2) ***Learning Disorders***
- 3) ***Motor Skills Disorders***
- 4) ***Communication Disorders***
- 5) ***Pervasive Developmental Disorders***
- 6) ***Attention Deficit and Disruptive Behavior Disorders***
- 7) ***Feeding & Eating Disorders of Infancy & Early Childhood***
- 8) ***Tic Disorders***
- 9) ***Elimination Disorders***
- 10) ***Other Disorders of Infancy, Childhood, or Adolescence***





## MENTAL RETARDATION



Mental  
Retardation is  
not a disease,  
it is a condition.

## Definition

“Mental retardation refers to significantly subaverage general intellectual functioning resulting in or associated with concurrent impairments in adaptive behavior & manifested during the developmental period”

(American Association on Mental



# Epidemiology

- About 3% of the world population is estimated to be mentally retarded.
- In India, 5 out of 1000 children are mentally retarded (*The Indian Express, 13<sup>th</sup> March 2001*).
- Mental retardation is more common in boys than girls.
- With severe & profound mental retardation mortality is high due to associated physical disease.

# Etiology

## Genetic Factors

### • ***Chromosomal abnormalities***

- Down's syndromes
- Fragile X syndrome
- Trisomy X syndrome
- Turner's syndrome
- Cat-cry syndrome
- Prader-willi syndrome
- ***Cranial malformation***
- Hydrocephaly, Microcephaly

## Genetic Factors

### • ***Metabolic disorders***

- Phenylketonuria
- Wilson's disease
- Galactosemia

### • ***Gross disease of brain***

- Tuberos scleroses
- Neurofibromatosis
- Epilepsy

# Prenatal Factors

## *Infection*

- Rubella
- Cytomegalovirus
- Syphilis
- Toxoplasmosis, herpes simplex

## *Endocrine disorders*

- Hypothyroidism
- Hypoparathyroidism
- Diabetes mellitus

## *Intoxication*

*Lead, certain drugs, substance abuse*

## *Physical damage & disorders*

- Injury
- Hypoxia
- Radiation
- Hypertension
- Anemia
- Emphysema

## *Placental dysfunction*

- Toxemia of pregnancy
- Placenta previa
- Cord prolapse
- Nutrition growth retardation

## **Perinatal Factors**

- Birth asphyxia
- Prolonged or difficult birth
- Prematurity
- Kernicterus
- 

---

## **Infections**

- i. Encephalitis
  - ii. Measles
  - iii. Meningitis
  - iv. Septicemia
- Accidents
  - Lead poisoning

## • **Environmental & socio-cultural Factors**

- Cultural deprivation
- Low socio-economic status
- Inadequate caretakers
- Child abuse

# Classification:

- Mild Retardation (IQ 50-70): This is commonest type of mental retardation accounting for 85-90% of all cases. These individuals have minimum retardation in sensory-motor areas.
- Moderate Retardation (IQ 35-50): About 10% of mentally retarded come under
- this group.

Severe Retardation (IQ 20-35): Severe mental retardation is often recognized early in life with poor motor development & absent or markedly delayed speech & communication skills.

**Profound Retardation (IQ below 20):** This group accounts for 1-2% of all mentally retarded. The achievement of developmental milestones is markedly delayed. They require constant nursing care & supervision.



# SIGN AND SYMPTOMS

- Failure to achieve developmental milestones
- Deficiency in cognitive functioning such as inability to follow commands or directions
- Failure to achieve intellectual developmental markers
- Reduced ability to learn or to meet academic demands
- Expressive or receptive language



- Psychomotor skill deficits
- Difficulty performing self-esteem
- Irritability when frustrated or upset
- Depression or labile moods
- Acting-out behavior
- Persistence of infantile behavior
- Lack of curiosity.



# DIAGNOSIS

- History collection from parents & caretakers
- Physical examination
- Neurological examination
- Assessing milestones development
- Investigations
  - Urine & blood examination for metabolic disorders
  - Culture for cytogenetic & biochemical studies
  - Amniocentesis in infant chromosomal disorders
  - chorionic villi sampling
  - Hearing & speech evaluation

- EEG, especially if seizure are present
- CT scan or MRI brain, for example, in tuberous sclerosis
- Thyroid function tests when cretinism is suspected
- Psychological tests like Stanford Binet Intelligence Scale & Wechsler Intelligence Scale for Children's (WISC), for categorizing the child's level of disability.

# TREATMENT MODALITIES

- Behavior management
- Environmental supervision
- Monitoring the child's development needs & problems.
- Programs that maximize speech, language, cognitive, psychomotor, social, self-care, & occupational skills.
- Ongoing evaluation for overlapping psychiatric disorders, such as depression, bipolar disorder, & ADHD.
- Family therapy to help parents develop coping skills & deal with guilt or anger.
- Early intervention programs for children younger than 3 with mental retardation
- Provide day schools to train the child in basic skills, such as bathing

# NURSING MANAGEMENT

- Determine the child's strengths & abilities & develop a plan of care to maintain & enhance capabilities.
- Monitor the child's developmental levels & initiate supportive interventions, such as speech, language, or occupational skills as needed.
- Teach him about natural & normal feelings & emotions.
- Provide for his safety needs.
- Prevent self-injury. Be prepared to intervene if self-injury occurs.
- Monitor the child for physical or emotional distress.
- Modify his behavior by having him redirect his energy



- Teach the child adaptive skills, such as eating, dressing, grooming & toileting.
- Demonstrate & help him practice self-care skills.
- Work to increase his compliance with conventional social norms & behaviors.
- Maintain a consistent & supervised environment.
- Maintain adequate environmental stimulation.
- Set supportive limits on activities.
- Work to maintain & enhance his positive feelings about self & daily accomplishments.

# PROGNOSIS

- The prognosis for children with mental retardation has improved & institutional care is no longer recommended.
- These children are mainstreamed whenever feasible & are taught survival skills.
- A multidimensional orientation is used when working with these children, considering their psychological, cognitive, social & emotional development.



SPECIFIC  
DEVELOPMENTAL  
DISORDER



## **INTRODUCTION**

The term 'specific developmental disorders' includes a variety of severe and persistent difficulties in spoken language, spelling, reading, arithmetic, and motor function. Skills are substantially below the expected level in terms of chronological age, measured intelligence, and age-appropriate education, and cannot be explained by any obvious neurological disorder or any specific adverse psychosocial or family circumstances.





## **GENERAL OBJECTIVES**

At the end of the class students will be able to acquire adequate knowledge regarding specific developmental disorder, and will be able to apply the knowledge in the professional area with positive attitude



## SPECIFIC OBJECTIVES

At the end of the class students will be able to

- ✓ Define specific developmental disorder
- ✓ Describe the classifications of specific developmental disorder.
- ✓ List down the prevalence of specific developmental disorder
- ✓ Explain the etiological factors of specific developmental disorder
- ✓ Enlist the clinical manifestations of specific developmental disorder
- ✓ Enumerate the diagnostic measures of Emotionally unstable personality disorder
- ✓ Elaborate the management of specific developmental disorder





## DEFINITION

**Specific developmental disorders (SDD)** refers to delays in developmental domains such as language and speech development, motor coordination or the development of scholastic skills, in the absence of sensory deficits, subnormal intelligence or poor educational conditions.



## CLASSIFICATION

### ICD 10 classification

**F80-F89 Disorders of psychological development**

**F80 Specific developmental disorders of speech and language**

F80.0 Specific speech articulation disorder

F80.1 Expressive language disorder

F80.2 Receptive language disorder

F80.3 Acquired aphasia with epilepsy [Landau-Kleffner syndrome]

F80.8 Other developmental disorders of speech and language

F80.9 Developmental disorder of speech and language, unspecified





## **F81 Specific developmental disorders of scholastic skills**

F81.0 Specific reading disorder

F81.1 Specific spelling disorder

F81.2 Specific disorder of arithmetical skills

F81.3 Mixed disorder of scholastic skills

F81.8 Other developmental disorders of scholastic skills

F81.9 Developmental disorder of scholastic skills, unspecified

## **F82 Specific developmental disorder of motor function**

## **F83 Mixed specific developmental disorders**

- Due to lack of studies in India the true prevalence of this disorder is not known
- 5 % and 10 percentage of specific developmental disorders
- According to DSM 4 in United States the prevalence of reading disorder and mathematics disorder is estimated at 4% and 1 percentage respectively, of school age children





# ETIOLOGY

## 1. Medical

Prenatal factors	Perinatal factors	Postnatal factors
<b>Alcohol consumption</b> <b>Cigarette smoking</b> <b>Cocaine use</b> <b>Malnutrition</b> <b>Foetal infection</b> <b>Exposure to toxin</b>	Prematurity anoxia Prolonged labour Mechanically assisted delivery Low birth weight	Accidental head injury high fever Dehydration Meningitis Hypoglycaemia Epilepsy



## 2. Structural brain differences

These are identified through on techniques, which include Auto free study, CT and MRI studies

## 3. Psychophysiological studies

Electroencephalogram investigation - brain electrical activity in the left temporal and parietal region and in the medial frontal area



A newborn baby is shown sleeping peacefully in a basket lined with soft, light-colored fabric. The baby is curled up, and their face is partially visible. The basket is decorated with blue and white star-shaped ornaments. The background is a soft, light pink color with a subtle pattern of white stars.

## 4. Biochemical changes

### A. Neurotransmitters

- Imbalance in the production of neurotransmitters such as serotonin, dopamine, norepinephrine, acetylcholine, are suggested

### B. Glandular disorder

- This includes thyroid deficiency and hypothyroidism. These abnormality in young age can cause permanent damage to the brain affecting our intelligence language functioning and motor ability



## 5. Genetic course

- Twin studies have provided further such evidence with **monozygotic twins** showing higher reading disorders than dizygotic twins.







## 6. Environmental factors

Environmental lead - studies continued to provide evidence of the adverse effect of elevated body level of leads on cognitive and behavioural development in children.

Diet factors - the possible link between food dyes and addictive such as artificial flavouring and preservative





## 7. Psychosocial factors

- A high degree of psychological stress
- Maternal mental disorder
- Low socioeconomic status living in poverty







## COMMON FEATURES OF SPECIFIC DEVELOPMENTAL DISORDER

- Individual does not learn despite average intellectual potential and adequate opportunities
- Significant discrepancy exists between intellectual potential for academic aptitude and performance.
- It is not due to direct result of mental retardation, medical or neurological, environmental factors, sensory, cultural or instructional deprivation.



- These disorders have their onset during infancy or childhood
- There is an impairment or delay in the development of function that are strongly related to biological maturation of the central nervous system
- They have a steady course without remissions and relapses that are characteristics of many mental disorder



A photograph of a baby sleeping peacefully in a basket, with the word "CLASSIFICATION" overlaid in large, red, underlined letters on the right side of the image.

## CLASSIFICATION

### **Specific developmental disorders of speech and language F80**

- **Specific speech articulation disorder F80.0**

A specific developmental disorder in which the child's use of speech sounds is below the appropriate level for its mental age, but in which there is a normal level of language skills.

- Omission (see for seen)
- Substitution (wip for lip, train for crane, doze for those)
- Addition of extra sounds (Buhrown for brown)



## ICD 10 CRITERIA

- Articulation (phonological) skills, as assessed on standardized tests, below the 2 standard deviations limit for the child's age.
- Articulation (phonological) skills at least 1 standard deviation below nonverbal IQ as assessed on a standardized test.
- Language expression and comprehension, as assessed on a standardized test, within the 2 standard deviation limit for the child's age.

Absence of neurological, sensory or physical impairments that directly affect speech sound production, or a pervasive developmental disorder



## **Expressive language disorder F80.1**

A specific developmental disorder in which the child's ability to use expressive spoken language is markedly below the appropriate level for its mental age, but in which language comprehension is within normal limits





A photograph of a baby sleeping peacefully in a basket lined with purple and white fabric. A small teddy bear is tucked next to the baby. The background is a soft, light pink gradient.

## ICD 10 criteria

- Expressive language skills, as assessed on standardized tests, below the 2 standard deviation limit for the child's age.
- Expressive language skills at least 1 standard deviation below nonverbal IQ as assessed on a standardized test.
- Receptive language skills, as assessed on standardized tests, within the 2 standard deviation limit for the child's age.
- Use and understanding of non-verbal communication and imaginative language functions within the normal range.
- Absence of neurological, sensory or physical impairments that directly affect use of spoken language, or of a pervasive developmental disorder



## **Receptive language disorder F 80.2**

A specific developmental disorder in which the child's understanding of language is below the appropriate level for its mental age.

particularly in more subtle aspects of language - grammatical structures, tone of voice.







## ICD 10 criteria

- Language comprehension, as assessed on standardized tests, below the 2 standard deviations limit for the child's age.
- Receptive language skills at least 1 standard deviation below non-verbal IQ as assessed on a standardized test.
- Absence of neurological, sensory, or physical impairments that directly affect receptive language, or of a pervasive developmental disorder





### F80.3 Acquired Aphasia with Epilepsy

- The child loses receptive and expressive language skills after period of normal language development.
- Some children become mute in a period of few months.
- Usually the onset is between the ages of three and seven years, with skills being lost over days or weeks.
- An inflammatory encephalitic process has been suggested as a possible cause of this disorder.
- About two-thirds of patients are left with a more or less severe receptive language deficit.

- Severe loss of expressive and receptive language skills over the course of a time period not exceeding six months.
- Normal language development prior to the loss of language.
- Paroxysmal EEG abnormalities affecting one or both temporal lobes that become apparent within a time span extending from two years before to two years after the initial loss of language.
- Hearing within the normal range.
- Retention of a level of non-verbal intelligence within the normal range.
- Absence of any diagnosable neurological condition other than that implicit in the abnormal EEG




A close-up photograph of a baby lying in a basket, wrapped in a white blanket. The baby's face is partially visible, looking down.

## 2) Specific developmental disorder of scholastic skills

### **Specific Reading Disorder**



Children with specific reading disorder have significant impairment in the development of reading skills. They experience significant impairment in the acquisition of reading accuracy, reading fluency and reading comprehension which cannot be accounted for by low IQ, visual acuity problems, neurological damage or poor educational opportunities .



## ICD 10 criteria

A. Either (1) or (2):

(1) A score on reading accuracy and/or comprehension that is at least 2 standard errors of prediction below the level expected on the basis of the child's chronological age and general intelligence; with both reading skills and IQ assessed on an individually administered test standardized for the child's culture and educational system.

(2) A history of serious reading difficulties, or test scores that met criteria A (1) at an earlier age, plus a score on a spelling test that is at least 2 standard errors of prediction below the level expected on the basis of the child's chronological age and IQ.

B. The disturbance in A significantly interferes with academic achievement or activities of daily living that require reading skills.





C. Not directly due to a defect in visual or hearing acuity, or to a neurological disorder.

D. School experiences within the average expectable range

E. Most commonly used exclusion criterion: IQ below 70 on an individually administered standardized test





## Specific Spelling Disorder

There is specific and significant impairment in the development of spelling skills. The spelling skills of the child will be significantly below the expected level related to age, general intelligence and school placement.







## ICD 10 criteria

- A score on a standardized spelling test that is at least 2 standard errors of prediction below the level expected on the basis of the child's chronological age and general intelligence.
- Scores on reading accuracy and comprehension, and on arithmetic, that are within the normal range (+ 2 standard deviations from the mean).
- No history of significant reading difficulties.
- School experience within the average expectable range (i.e. there have been no extreme inadequacies in educational experiences).

Spelling difficulties present from the early stages of learning to spell.

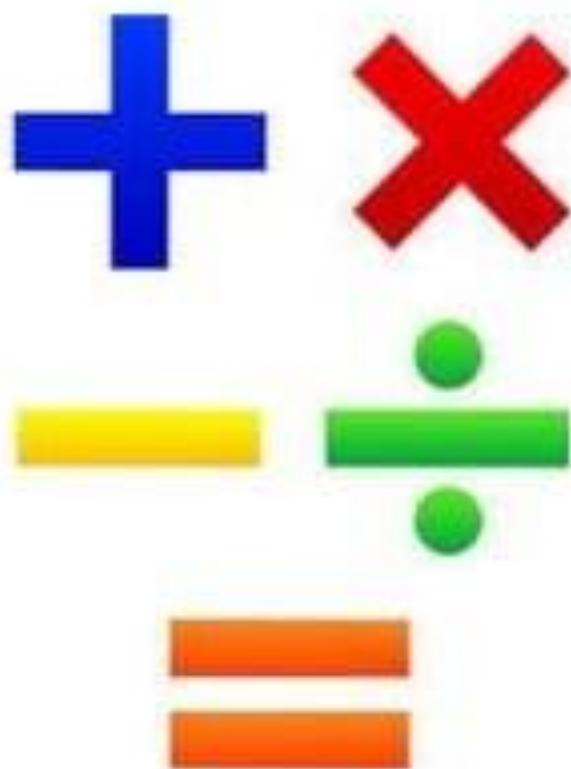


## Specific Disorder of Arithmetical skills

- The arithmetical difficulties include failure to understand the basic concepts of maths, inability to understand mathematical terms or signs and difficulty in learning mathematical tables.

Children have

- Deficits associated with fact retrieval.
- Defects in problem conceptualization and calculation
- Problems with identification of numbers, counting and retrieval of arithmetic combinations.







## ICD10 CRITERIA

- A score on a standardized arithmetic test that is at least 2 standard errors of prediction below the level expected on the basis of the child's chronological age and general intelligence.
- Scores on reading accuracy and comprehension, and on spelling that are within the normal range
- No history of significant reading or spelling difficulties.
- School experience within the average expectable range (i.e. there have been no extreme inadequacies in educational experience).
- Arithmetic difficulties present from the early stages of learning arithmetic.



## Mixed Disorder of Scholastic Skills

In this category, arithmetical and reading or spelling skills are significantly impaired. The neuropsychological assessment indicates that in both these conditions, there are defects in working memory, processing speed and verbal comprehension.





## Specific developmental disorders of motor function

- A disorder in which the main feature is a serious impairment in the development of motor coordination that is not solely explicable in terms of general intellectual retardation or of any specific congenital or acquired neurological disorder.
- signs of impaired fine and gross motor coordination





## ICD 10 CRITERIA

A) score on a standardized test of fine or gross motor coordination that is at least two standard deviations below the level expected for the child's chronological age.

B) The disturbance in A significantly interferes with academic achievement or activities of daily living.

No diagnosable neurological disorder



## Mixed specific developmental disorder

A residual category for disorders in which there is some admixture of specific developmental disorders of speech and language, of scholastic skills, and of motor function



## Specific developmental disorders of speech and language

### 1) Language therapy







- 2) MEDICAL EXAMINATION



**Diagnose other conditions, such as a hearing problem or other sensory impairment.**



### 3) Home care options

- Speak clearly, slowly, and concisely when asking your child a question.
- Wait patiently as your child forms a response.
- Keep the atmosphere relaxed to reduce anxiety.
- Ask your child to put your instructions in their own words after giving an explanation or command.






- 4) Psychological therapy

**Counselling** may be needed to address emotional or behavioural issues.



A newborn baby is sleeping peacefully in a basket lined with purple and white fabric. The baby is curled up, and their face is partially visible. The background is a soft, out-of-focus light color.

## Specific developmental disorders of scholastic skills

- Pharmacological intervention

The primary class of medication used for psycho stimulant such as anti anxiety agents antidepressants major tranquilizers.








## Educational intervention


- The efforts in these educational interventions include remedial and compensatory approaches. And are used through a multisensory approach for building in all area of strength , while compensating for any area of weakness .
- These efforts are provided through regular classroom placement, resource room service, and special separate school.

A newborn baby is sleeping peacefully in a basket lined with purple and white fabric. A small, light-colored teddy bear is tucked next to the baby. The scene is softly lit, creating a calm and tender atmosphere.

## Cognitive behavioural interventions

- Cognitive behavioural interventions are based on the principle that thoughts, cognition and environmental factors influence overt behaviour
- Goals of cognitive behaviour intervention are to teach self control, and self regulation.
- The technique commonly employed are self assessment self monitoring self recording and self reinforcement.



A photograph of a baby sleeping peacefully in a basket, with a dog's head resting next to the baby. The image is partially obscured by a red curved banner at the top of the slide.

## Specific developmental disorder of motor function

- occupational therapy – to help you find practical ways to remain independent and manage everyday tasks such as writing or preparing food
- cognitive behavioural therapy (CBT) – a talking therapy that can help you manage your problems by changing the way you think and behave





- keep fit – you may find regular exercise helps with co-ordination, reduces feelings of fatigue and prevents you gaining weight
- learn how to use a computer or laptop if writing by hand is difficult
- use a calendar or diary to improve your organisation – you may be able to synchronise this with your phone and computer
- learn how to talk positively about your challenges and how you have overcome them



## REFERENCE

- Towsand MC. Essentials of psychiatric mental health nursing. 3<sup>rd</sup> edition. Philadelphia; F A Davis company publication.2005
- Ahuja N, Vyas JN. Textbook of postgraduate psychiatry. Second edition. Jaypee publication, 2013.
- Sreevani R. A guide to mental health and psychiatric nursing. 3<sup>rd</sup> edition. New Delhi: Jaypee brother medical publication.2010.
- Raju S M, Raju B. Psychiatry and mental health nursing. Bangaluru; Jay pee brothers medical publications.2010
- Gupta R K. Mental health nursing. Third edition. Bikrampura;S vikas & company medical publications. 2016
- Gelder M G, Juan J L. new oxford textbook of psychiatry. Volume 1, oxford university publications, New York.
- Neeraja K P. Essentials of mental health and psychiatric nursing. Volume two. Jaypee Publication; New delhi.







## F84.0 CHILDHOOD AUTISM



# DEFINITION OF AUTISM

It is defined by the presence of abnormal and or impaired development that is manifest before the age of 3 years, characterized by abnormalities of social development, communication and a restriction of behavior and interest.

## CONTI.....

- ⦿ Autism is a developmental disorder that appears in the first 3 years of life, and affects the brain's normal development of social and communication skills.





- ◉ Today, autism is a severe form of a broader group of disorders
- ◉ These are referred to as pervasive developmental disorders (later)
- ◉ Typically appears during the first 3 years of life



**A**lways  
**U**nique  
**T**otally  
**I**nteresting  
**S**ometimes  
**M**ysterious

Autism is a developmental disorder that appears in the first 3 years of life, and affects the brain's normal development of social and communication skills.

By: Brittany Allen

# HISTORICAL OVERVIEW





- ⦿ First described by Leo Kanner in 1943 as *early infantile autism*
- ⦿ “Auto” - children are “locked within themselves.”
- ⦿ For next 30 years, considered to be an *emotional disturbance*

- ◉ ◻ Laretta Bender first used the term “childhood schizophrenia” for childhood autism

## PREVALENCE

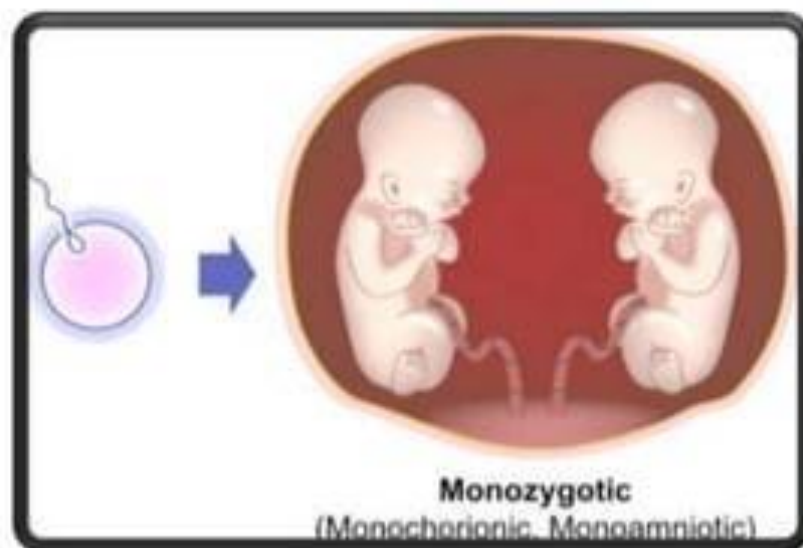
- ⦿ Prevalence is 2-6/1000 individuals  
(1/2 to 1 1/2 million affected)
- ⦿ 4 times more prevalent in boys
- ⦿ No known racial, ethnic, or social boundaries





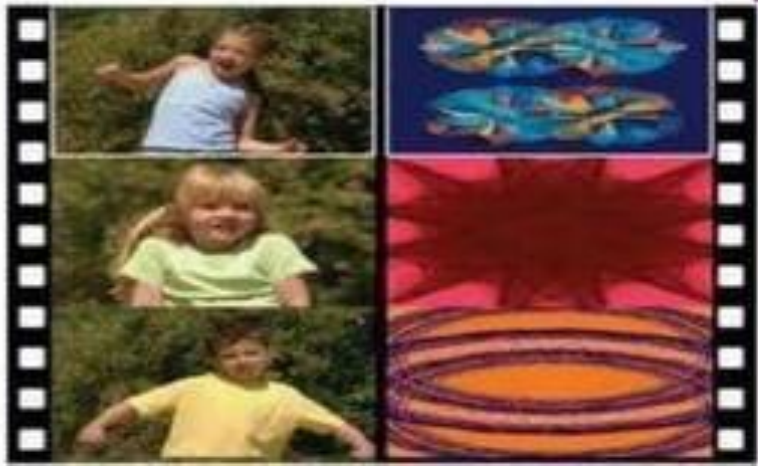
## ◉ Genetic factors

- ❖ More in monozygotic twins than dizygotic twins
- ❖ Siblings of autistic children shows a prevalence of autistic disorder of 2 %



## ◎ Biochemical factors

1/3 of clients with autistic disorder  
have elevated plasma serotonin





## ⦿ Medical factors

Postnatal neurological infections

Fragile X chromosome syndrome



## Perinatal factors

Maternal bleeding after 1st trimester and meconium in amniotic fluid



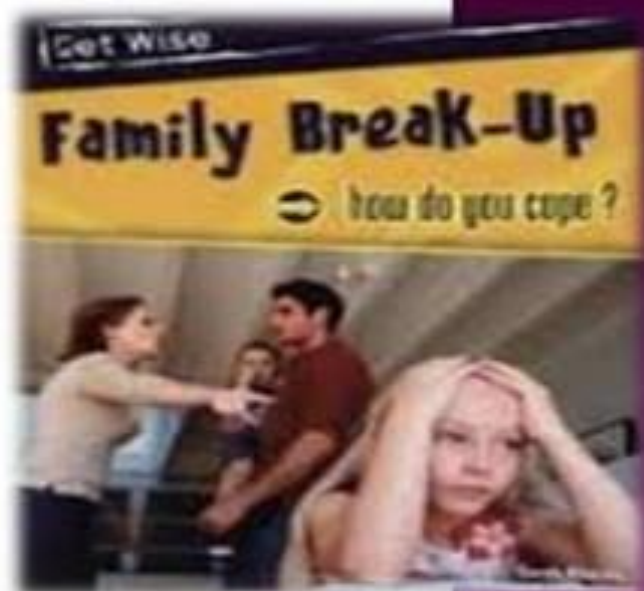
□ Parenting influence and social environmental factors

□ Parental rejection

□ Family break up

□ Family stress

□ Faulty communication patterns





□ Refrigerator parents, Kenner 1973

□ Fixation in presymbiotic phase,  
according to Mahler 1975. child  
creates a barrier between self and  
others.



## Theory of mind in autism

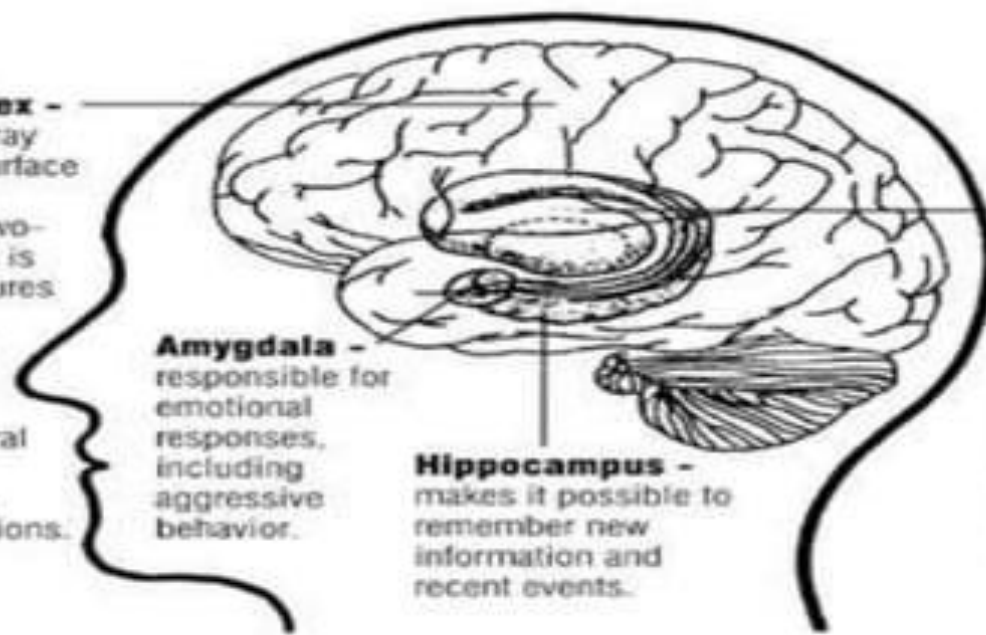
“Mind blind”, lack the Ability to put themselves in the place of another person

### ◉ **Neuroanatomical studies**

Enlargement of lateral ventricles and cerebellar degeneration



**Cerebral cortex** - a thin layer of gray matter on the surface of the cerebral hemispheres. Two-thirds of its area is deep in the fissures or folds. Responsible for the higher mental functions, general movement, perception, and behavioral reactions.



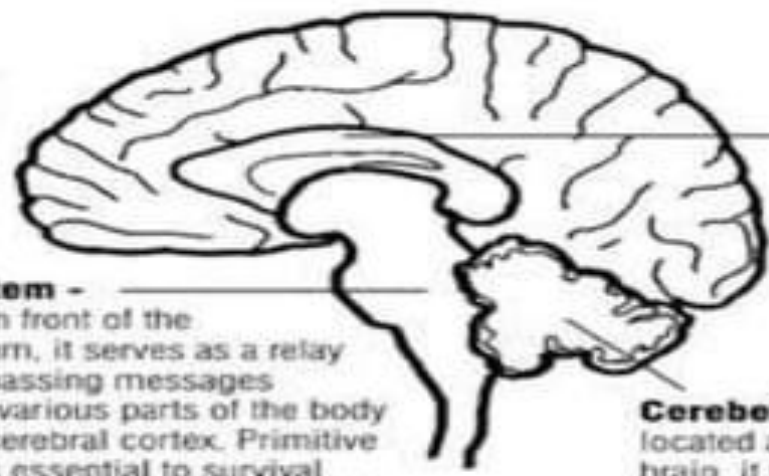
**Amygdala** - responsible for emotional responses, including aggressive behavior.

**Hippocampus** - makes it possible to remember new information and recent events.

**Basal ganglia** - gray masses deep in the cerebral hemisphere that serves as a connection between the cerebrum and cerebellum. Helps to regulate automatic movement.

## Major Brain Structures Implicated in Autism

**Brain stem** - located in front of the cerebellum, it serves as a relay station, passing messages between various parts of the body and the cerebral cortex. Primitive functions essential to survival (breathing and heart rate control) are located here.

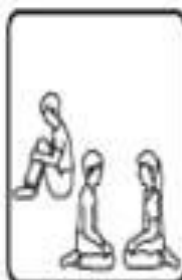


**Corpus callosum** - consists primarily of closely packed bundles of fibers that connect the right and left hemisphere and allows for communication between the hemispheres.

**Cerebellum** - located at the back of the brain, it fine tunes our motor activity, regulates balance, body movements, coordination, and the muscles used in speaking.



# SYMPTOMS



1. Difficulty in mixing with other children



2. Inappropriate laughing or giggling



3. Little or no eye contact



4. Apparent insensitivity to pain



5. Prefers to be alone; aloof manner



6. Spins objects



7. Inappropriate attachment to objects



8. Noticeable physical overactivity or extreme underactivity



9. Unresponsive to normal teaching methods



10. Insistence on sameness; resists changes in routine



11. No real fear of dangers



12. Sustained odd play



13. Echolalia (repeating words or phrases in place of normal language)



14. May not want cuddling or act cuddly



15. Not responsive to verbal cues; acts as deaf



16. Difficulty in expressing needs; uses gestures or pointing instead of words



17. Tantrums - displays extreme distress for no apparent reason



18. Uneven gross/fine motor skills (may not want to kick ball but stack blocks)

I'm not misbehaving



I have Autism

Please be understanding

# CLINICAL FEATURES

## 1. Social interaction

- ◉ Inability to make warm relationship with people.
- ◉ Children do not respond to their parents affectionate behavior



- ◉ smile and look at others less often, and respond less to their own name.
- ◉ They tend to their own things regardless of who is around or what is happening in the environment





## CONTI.....

⦿ Poor use of social signals and weak integration of social, emotional and communicative behavior

⦿ Failure to make eye to eye contact with people



CONTI.....

## 2. Impairments in communication

- ⦿ failure to develop normal speech, failure to communicate by gestures, body movements or facial expressions
- ⦿ lack of social usage of whatever language skills are present



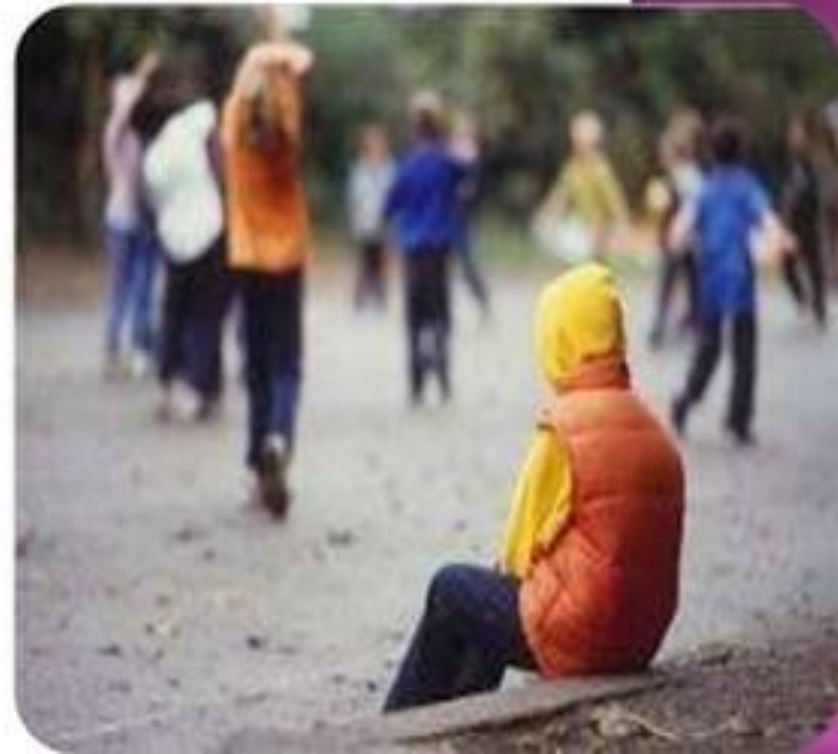
- ◉ delayed onset of babbling, unusual gestures

- ◉ diminished responsiveness, and vocal patterns that are not synchronized with the caregiver





- ◉ their gestures are less often integrated with words.
- ◉ deficits in joint attention
- ◉ less likely to make requests or share experiences
- ◉ impairment in social Imitative play



## CONTI.....

- ◉ difficulty with imaginative play and with developing symbols into language.
- ◉ lack of creativity and fantasy in thought process
- ◉ may exhibit echolalia



# CONTI.....

## 3. Behavioral abnormalities

- ⦿ Restricted repetitive and stereotyped pattern of behavior



- ⦿ tendency to impose rigidity and routine on a wide range of aspects of day to day functioning



- ◉ gets very upset by minor changes in routine

- ◉ difficulty in generalizing newly learned skills to new situations



## CONTI.....

- ⦿ stereotyped and repetitive play
- ⦿ ritualistic behavior like checking and touching rituals and dressing up in particular way. When the rituals are interrupted, children may become anxious or angry

- ◉ rocking, twirling, head banging and similar repetitive behavior are often seen especially in autistic children
- ◉ Over activity, disruptive behavior and temper tantrums which may occur for little or no reason
- ◉ Phobias, eating and sleeping disturbances



# CONTI.....

## 4. Cognitive abnormalities

- ⦿ poor at symbolization, understanding abstract ideas and grasping theoretical concepts
- ⦿ memory may be excellent

## Other features

- ◉ Many autistic children enjoys music particularly

- ◉ “Idiot savant syndrome”:

in spite of a pervasive impairment of functions, certain islets of precocity or splinter functions may remain



# **TYPES OF PERVASIVE DEVELOPMENTAL DISORDERS**



# 1. AUTISTIC DISORDER

- ◉ Impairments in **social interaction, communication, and imaginative play.**
- ◉ Apparent before age 3.
- ◉ Also includes stereotyped behaviors, interests, and activities

## 2. ASPERGER'S DISORDER

- ◉ Impairments in social interactions, and presence of restricted interests and activities
- ◉ No clinically significant general delay in language
- ◉ Average to above average intelligence

### 3. PERVASIVE DEVELOPMENTAL DISORDER - NOT OTHERWISE SPECIFIED (PDD-NOS)

- ⦿ Often referred to as **atypical autism**
- ⦿ Used when a child does not meet the criteria for a specific diagnosis, but there is severe and pervasive impairment in specified behaviors



## 4. RETT'S DISORDER

- ⦿ Progressive disorder which, to date, has only occurred in girls.
- ⦿ Period of normal development and then the loss of previously acquired skills
- ⦿ Also loss of purposeful use of hands, which is replaced by repetitive hand movements
- ⦿ Beginning at age of 1-4 years

## 5. CHILDHOOD DISINTEGRATIVE DISORDER

- ⦿ Normal development for at least the first 2 years
- ⦿ Then significant loss of previously acquired skills

# DIAGNOSTIC CRITERIA

1 of 150 Children Are  
Diagnosed With Some Form  
of Autism

Class in session





## EXAMS & TESTS

- ◉ routine developmental exams
- ◉ language milestones:
- ◉ hearing evaluation
- ◉ blood lead test



- ◉ screening test for autism (such as the Checklist for Autism in Toddlers [CHAT] or the Autism Screening Questionnaire).
- ◉ genetic testing
- ◉ complete physical examination
- ◉ nervous system (neurologic) examination.



## SPECIFIC SCREENING TOOL

- ◉ Autism Diagnostic Interview - Revised (ADI-R)
- ◉ Autism Diagnostic Observation Schedule (ADOS)
- ◉ Childhood Autism rating Scale (CARS)
- ◉ Gilliam Autism Rating Scale
- ◉ Pervasive Developmental Disorders Screening Test - Stage 3



# TREATMENT

- Behavior therapy
  - ⦿ Development of regular routine
  - ⦿ Structured class room training
  - ⦿ Positive reinforcement to teach self care skills
  - ⦿ Speech therapy or sign language teaching



# BEHAVIORAL THERAPIES

- ◉ ABA - most widely implemented evidence based results
- ◉ Storyboarding
- ◉ Sensory Integration Therapy
- ◉ Relationship Development Intervention (RDI)





# APPLIED BEHAVIOR ANALYSIS (ABA)

- Pioneered by Dr. Ivar Lovaas at UCLA in the 1960s.





Several variations today, but general agreement that:

- ◉ Usually beneficial, sometimes very beneficial
- ◉ Most beneficial with young children, but older children can benefit
- ◉ 20-40 hours/week is ideal
- ◉ Prompting, as necessary, to achieve high level of success, with gradual fading of prompts
- ◉ Therapists need proper training and supervision
- ◉ Regular team meetings needed to maintain consistency

## OTHER EVIDENCE-BASED THERAPIES

- Speech Therapy
- Occupational Therapy/Physical Therapy
- Physical Therapy
- Sensory Integration
- Auditory Integration Therapy (AIT)
- Vocational Therapy

## CONTI.....

### Psychotherapy

- ⦿ not effective in infantile autism
- ⦿ Parental counseling and supportive therapy are useful in allaying parental anxiety and guilt



## ➤ Pharmacotherapy

- ◉ Fenfluramine helps in decreasing behavioral symptoms, and helpful in increasing IQ
- ◉ Haloperidol decreases hyperactivity and abnormal behavioral symptoms
- ◉ Other drugs like chlorpromazine, imipramine etc
- ◉ Antiepileptic medication

# DIET

- a gluten-free (wheat, barley)
- or casein-free diet (milk, cheese)



## OTHER APPROACHES

- ◉ to talk with other parents of children with autism
- ◉ using secretin infusions





## OUTLOOK (PROGNOSIS)



## POSSIBLE COMPLICATIONS

- Fragile X syndrome
- Mental retardation
- Tuberous sclerosis

## PROGNOSIS

- ⦿ Autism is a very challenging disability to solve because of many unknown factors.
- ⦿ Since there is no cure for autism, proper procedures such as therapy must be taken to help these individuals handle their problems.



- ◉ With proper therapy sessions, individuals with autism can improve their modes of communication and socialization to live very productive independent lifestyles in society.
- ◉ Autistic children with IQ scores of 70 and above, normally can live and work more productive independent lifestyles within society

- ⦿ Autism symptoms vary from mild to severe. The prognosis for these individuals depends on the severity of their disability and the level of therapy they receive.
- ⦿ Individuals with autism usually demonstrate some aspect of impairment of their senses throughout life.

- ⦿ Individuals with autism are often labeled incorrectly as “loners” because of their inability to socially interact.
- ⦿ Approximately 33% of children with autism will eventually develop epilepsy. The highest risk is with children that have severe cognitive impairments and motor deficits



- ⦿ Individuals with autism can live very active lifestyles. They are very capable of performing most physical activities. This will depend on the severity of the disability.
- ⦿ Also, an active lifestyle is more likely to help these individuals with weight control, muscular endurance, muscular strength, cardiovascular endurance, self-esteem, and self-confidence.

## ***IMPLICATIONS FOR PHYSICAL EDUCATION***

- ◉ May need 1:1 supervision for child
- ◉ Provide an initial screening process to determine student's physical strengths and weaknesses. This will help in writing IEP objectives and goals.

- ◉ Establish routines and smooth transitions throughout the lesson
- ◉ Modify equipment- Provide balls that will provide sensory output during activities. (ie: Knobby balls)
- ◉ Videotapes can be useful for autistic children who can follow visual cues.

## ***RECOMMENDED ACTIVITIES***

- ⦿ Any activity that requires vigorous activity and will improve their overall fitness levels. (flexibility, cardiovascular endurance, strength, muscular endurance)
- ⦿ Walking/Hiking
- ⦿ Bike riding (Type of bike will depend on ability/balance levels)



- ◉ Swimming: An excellent low impact activity that can benefit student in a variety of health-related ways
- ◉ Activities that require the use of their senses. Autistic children like deep pressure that helps them relax. Weighted backpacks/vest can help provide this deep pressure.
- ◉ Find out the students physical activity interests.

## ***CONTRAINDICATED ACTIVITIES***

- ⦿ Having class in a loud and/or bright environment; providing too much stimuli within the environment.
- ⦿ Activities that require a lot of contact.
- ⦿ Spending too much time on a single activity and not providing enough choices

## ***EFFECTIVE TEACHING STRATEGIES***

- ◉ Use teaching stations
- ◉ Change activities regularly
- ◉ Eliminate different distractions
- ◉ Keep directions short and age-appropriate.

•

- ◉ Use sensory stimulation to increase attention span
- ◉ Use smooth transitions
- ◉ Instruct in an environment where noise, smells, lights will not interfere with learning. Teach in less stimulating environment.



- Provide students with ear plugs/cotton balls in noisier environment.
- Keep motivational music at low level.
- Establish predictable routines within lessons
- Create high structured environment which is organized and predictable
- Warm-up, Activity, Closure

- ⦿ Use visual aids during activities
- ⦿ Use vigorous aerobic exercises to keep student on task
- ⦿ Use a consistent behavior modification program
- ⦿ Provide lots of practice time/repetitions.
- ⦿ Show enthusiasm when teaching.

## ***PRESCHOOL-ELEMENTARY CONSIDERATIONS***

- ⦿ Use a reward system like sticker chart
- ⦿ Teach students basic loco-motor and object control skills.

## *MIDDLE SCHOOL - SECONDARY*

- ⦿ Provide reward system that allows students the opportunity to participate in enjoyable activity.
- ⦿ Teach students lead-up activities for team, individual, and cooperative activities.



- Have child perform task and draw parts of a picture (face) every time task is completed
- Use a peer tutor to assist child in learning.
- Allow choices when setting up the curriculum so they can choose an activity that is of interest to them.

## ***USE POSITIVE BEHAVIOR MANAGEMENT STRATEGIES***

- ◉ Set realistic goals and expectations
- ◉ Increase amount of activity time, while decreasing instructional and transition periods
- ◉ Check for basic understanding to make sure students know expectations

- Provide a structured environment with appropriate routines
- Challenge the students to keep them motivated
- Provide a reward system for good attitudes and behavior
- Provide non-verbal feedback and encouragement with high 5's and cheering

- ⦿ Be consistent and fair with your rules and consequences
- ⦿ Use proximity control if a problem is arising



- ◉ Get to know the students and show interest toward them outside of the physical education environment.
- ◉ Create a positive and enthusiastic environment for everyone
- ◉ Provide vigorous activities to help students remain on task.

# **AUTISM**

I AM A PARENT  
I AM A CARE GIVER  
I AM A FAMILY MEMBER

## **IT IS MY JOB TO**

SEE THE WORLD THROUGH THIS CHILD'S EYES  
EXPLAIN THIS CHILD TO TEACHERS  
EXPLAIN THIS CHILD TO THE COMMUNITY

## **IT IS MY PRIVILEGE TO**

FIGHT FOR THIS CHILD'S NEEDS  
PLEAD FOR EARLY INTERVENTION  
HAVE THIS CHILD IN MY LIFE

**April is Autism Awareness Month**



THANK YOUUUU!!!





# ADHD





# DEFINITION:

- Attention deficit hyperactivity disorder (ADHD) is characterized by inattentiveness, over activity, and impulsiveness. ADHD is a common disorder, especially in boys, and probably accounts for more child mental health referrals than any other single disorder.

(Hechtman, 2005)

# CONDUCT DISORDER






ODD

OPPOSITIONAL DEFIANT

DISORDER



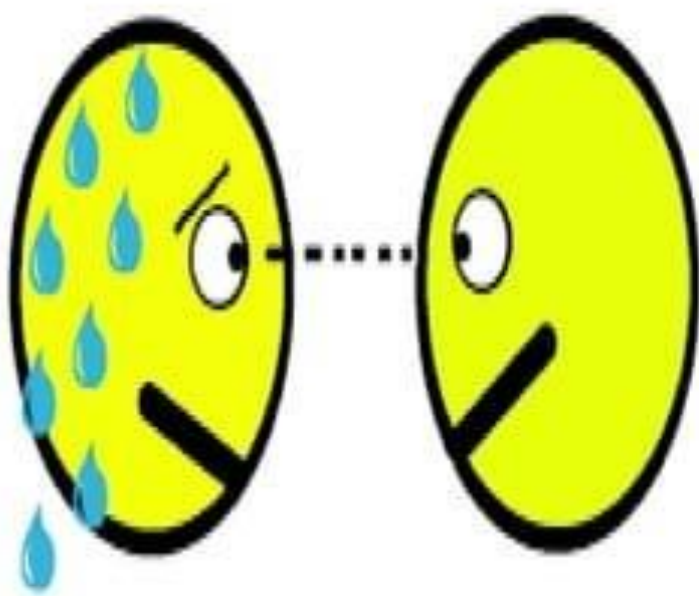


A young girl with blonde hair is shown from the chest up, wearing a pink and purple striped shirt. She has her right hand covering her eyes and is looking down with a sad expression. The background is a soft, out-of-focus green. The image is framed with rounded corners and a reflection effect at the bottom.

PLEASE DON'T LEAVE ME

**SEPARATION  
ANXIETY AND  
DISORDER**





Thank you

