

# DEVELOPMENTAL DELAY

# INTRODUCTION

- Child development refers to the process in which children grow through changes in skill development during predictable time periods called developmental milestones.
- Developmental delay occurs when children have not reached these milestones by the expected time period.
- Developmental delays can occur in all areas of development.

# Definition

- “Developmental delay is a significant lag in a child’s physical, cognitive, behavioral, emotional or social development in comparison with norms”. In other words developmental delay refers to when a child’s development lags behind established normal ranges for his or her age.

# Risk Factors

Falls in to two categories

1. Genetic factor: children are placed at genetic risk by being born with a genetic or chromosomal abnormality. E.g Down syndrome.
2. Environmental factors: environmental risk results from exposure to harmful agents either before or after birth, and things like poor maternal nutrition, or exposure to toxins (e.g led or drugs), or infections that are passed from mother to baby during pregnancy( e.g measles or HIV).

# Warning Signs of a Developmental delay

## 1. *Behavioral warning signs:*

- *Doesn't pay attention*
- Focuses on usual objects for long periods of time.
- Avoids or rarely makes eye contact with others.
- Gets unusually frustrated when trying to do simple tasks.
- Shows aggressive behaviours and acting out, and appears to be very stubborn.
- Exhibits violent behaviours.
- Stares in to space, rocks, body or talks to self.

## 2. Gross Motor warning signs

- Will have stiff arms/or legs.
- Will have a floppy or limp body posture.
- Uses one side of body more than the other.
- Clumsy manner.

### 3. Vision warning signs

- Difficulty in following objects
- Rubs eyes frequently.
- Turns, tilts or holds head in an unusual position.
- Difficulty in finding or picking up small objects.
- Difficulty in focusing and maintaining eye contact.
- Closes one eye when trying to look at distant objects.
- Eyes appear to be crossed or turned.
- Brings objects too close near to eye to see.
- One or both eyes appear abnormal.

#### 4. Hearing warning signs

- Talks in a very loud or very soft voice
- Difficulty in responding when called
- Difficulty in understanding and following directions
- Ears appear small and deformed.



# Screening of Developmental Delay

1. Developmental screening test is a quick and general measurement of skills.
  - It's purpose is to identify children who are in need of further evaluation.
  - A screening test is meant to identify children who might have a problem.

The popular screening tests are

- a) Battelle Developmental Inventory screening test.
- b) Baley Infant Neurodevelopmental Acreener
- c) Child Development Inventories
- d) Denver Developmental Screening Test (DDST)

# Battelle Developmental Inventory Screening Test (BDIST)

- Can be used to screen children aged 12-96 months, using a combination of direct assessment, observation and parental interview.

# Baley Infant Neurodevelopmental Screenener (BINS)

- BINS is designed for screening high risk infants aged 3-24 months.

# Child Development Inventories (CDI)

- CDI is known as the Minnesota child development inventory, was created to provide a systematic, standardized method for parents to report on their children's strengths, problems and present development
- CDI measures a child's development in eight areas namely social, self-help, gross motor, fine motor, expressive language, language comprehension, letters and numbers
- It consists of 300- item booklet and answer sheet for the parent to complete and profile sheet for recording the results.

# Denver Developmental Screening Test (DDST)

- DDST is a tool that combines direct observation and parental report. The tool consists of 125 items, organized into four developmental domains namely gross motor, fine motor, adaptive language, personal and social

# Interventions

- Counselling and training for a family
- Educational programs
- Medical services
- Nursing services
- Nutritional services
- Occupational therapy
- Physical therapy
- Psychological services

# Dysmorphysm

- Any congenital, structural or developmental defect is known as dysmorphism; this usually occurs due to abnormal embryogenesis or morphogenesis.
- Major dysmorphism
- Minor dysmorphism

# Etiology

- Chromosomal or genetic
- Environmental causes are referred to as teratogenic. Teratogens include dietary deficiencies, toxins or infections. e.g. dietary deficiency of maternal folic acid is associated with spina bifida.



# Common Dysmorphic Syndromes

1. Syndromes with craniofacial dysmorphism  
e.g carpenter syndrome
2. Syndromes with physical over growth,  
weaver-smith syndrome
3. Syndromes with chromosomal abnormalities,  
down syndrome, edward syndrome, turner's  
syndrome.

