# CHAPTER ONE

## Special Needs Education

### 1.1. Definition of key terms

**Impairment, disability and handicap**

These three terms are used to refer to person with certain difficulties/problems such as behavioral, physical and sensor (hearing + visual) problems. Although they have some differences, usually they are used interchangeably. As presented in Saint Mary College distance teaching material (September, 2005), World Health Organization (WHO) differentiates among the terms as follows.

- **Impairment**

It refers to any loss or abnormality of physiological, psychological or anatomical structure or function. It is the absence of particular body part or organ. Some children, for instance, have impairments such as eyes that do not see well, arms and legs that are deformed, or a brain not developing in a typical way etc. Impairment is a physical construct.

- **Disability**

It is any restriction or lack of ability to perform an activity in a manner or within the range considered normal for human being. It limits a person's ability to perform certain tasks such as seeing, hearing, walking in the same manner in which non-disabled people do. It is a reduction in function. It usually results from impairment. It is a functional construct.

- **Handicap**

It is a disadvantage for a given individual, resulting from an impairment or disability that limits/ prevents the fulfillment of a role that is considered as normal depending on age, sex, and social and cultural factors. It is a limitation of opportunities to take part in life of the community. It describes the encounter between the person with disability and the environment.

Handicap is a social construct that an individual with disability is not able to perform what he/she is expected by society due to the impairment experienced. The term handicap has more negative connotation than the terms impairment and disability. It is a social construct.

- **Persons with disabilities**

These are individuals who suffer certain disabilities such as blindness, deafness and hard of hearing, physical impairments, mental retardation and speech deficits.

- **Special Needs Education** is a specially designed instruction to meet the unique needs of children with disability, including instruction conducted in the classroom, in the home, in hospitals and institutions and in other settings (Smith and Luckasson 1995). It also includes the education of gifted, creative or talented students who need additional educational service to exploit their rich potentials to their optimum possible level.
- **Students with special needs** are individuals who require special education and related special services in order to achieve their fullest potential. They can be categorized into different groups: children with mental retardation, speech or language impairment, learning disabilities, behavioral disorders, visual impairments, hearing impairments, physical and health impairments and giftedness and creativity (Smith and Luckasson 1995).

**Intervention and rehabilitation**

These terms are very important in preventing or improving the conditions of people with variety of disabilities. Each of them is presented as under.

 **Intervention**

It is an attempt to prevent, improve, or eliminate impairments, disabilities or handicaps. It is a broad term that includes preventive measures taken before the occurrence of the problem and/or to change the situation after the occurrence of the problem. Early intervention plays a significant role in diverting the situation of the child and promoting his/her educational and psychosocial development.

 **Rehabilitation**

It is a goal oriented activity aimed at enabling persons with disabilities to reach maximum mental, physical, social, and level of functioning. It includes educational, psychological, medical and vocational services. It often refers to the situation which comes after the onset of the problem.

**1.2. Views about Disability**

1.  **Traditional view of disability**

Traditional view of is a construction created by religion and culture in society. In this view, disability is considered as a punishment, as consequences of ancestral anger or retribution by Devin forces, and the disabled people are regarded as unfortunate, different, and blemished (Coleridge, 1993; Savolainen, 1995). This concept of disability as Devin punishment is often associated with negative attitudes and beliefs that arise shameful feelings to people with disabilities and their families.

2.  **Medical View of Disability**

The medical view or individual view largely replaces and in effect extends the traditional view. According to this view, disability is visually seen as a lack of competence, due to a dysfunction in an individual's mind and body (Savolainen, 1995). In other words, the medical or individual view emphasizes impairments in human body that causes deficiency in some essential functions. It assumes an objective state of normal functioning, deviation from which is called disability. Medical science has found the causes of many of the impairments. Some result from genetic damage when the baby is conceived; some come from infections while the baby is in the womb; and a few may happen as the child is being born. Disabilities result not from impairments but from a lack of opportunities, participation and education. There is a great deal that parents and teachers can do to reduce the disabilities that come from impairments.

3· **Social View of Disability**

The Social Model views disability as a consequence of environmental, social and attitudinal barriers that prevent people with impairments from maximum participation in society. It is best summarized in the definition of disability from the Disabled Peoples" International: "the loss or limitation of opportunities to take part in the normal life of the community on an equal level with others, due to physical or social barriers."

This Model implies that the removal of attitudinal, physical and institutional barriers will improve the lives of people with disabilities, giving them the same opportunities as others on an equitable basis.

**1.3. Modes of special needs education delivery**

One of the important tasks concerning children with special needs is the creation of effective learning environments for the children and for their peers. Education can be provided, to exceptional children, in two broad ways: full segregation and full inclusion with children so called „normal". In teaching children with disability with other children, the level of participation of children with disability varies with different forms of educational placement. Some of the forms are discussed below.

- **Segregation**

It is putting children with disabilities in a separate environment and provides them special education by specially designed curriculum and specially trained teacher to promote their learning. Today it is discouraged for its social and academic discrimination among children with disabilities and children without disabilities.

- **Integration**

It is the process of bringing children with disabilities in to regular classroom without providing appropriate support. The focus is still on the individual child, not the system. The child is seen as the problem. The "integrated" child will either just be left to cope with in a rigid mainstream system with no support, or will receive individual attention that separates them out from their peers.

- **Mainstreaming**

It is an education system where students with special needs leave the regular classroom to attend smaller, and more intensive instructional sessions. It is a combined model of regular education classes with special education classes. Students spend at least part of the day in the regular classroom.

- **Inclusion**

It is a practice of assuring that all students with disabilities participate with other students in all aspects of school (Smith & Luckasson, 1995). It is a process of providing education for all children regardless of their background and ability differences in the same class. It requires identifying barriers that hinder learning and reducing or removing these barriers. The educational environment must be adjusted to meet the needs of all learners (UNESCO, 2000, 2001).

Inclusion is not restricted to children with disabilities or it is not just about specific group. It encompasses all children; addressing exclusion in all forms to enable meaningful and quality education for all.

# CHAPTER TWO

## Students with visual impairment

### 2.1. Definition

### 1. Legal definition of visual impairment

It involves assessment of visual acuity and field of vision to determine whether or not an individual qualifies for legal benefits available to blind people.

Legally blind: indicates that a person has less than 20/200 vision in the better eye after best correction (contact lenses or glasses). This means that what an individual with normal visual acuity (20/20) sees at two hundred feet, the legally blind person cannot see until he or she is within twenty feet. In addition, a person can be classified as legally blind if she has a field of vision which is so narrowed that its widest diameter subtends an angular distance no greater than 20 degrees in the better eye. (A normal field of vision is close to 180 degrees). Legally blind individuals typically use Braille and visual aids.

Partially sighted/partially blind: refers to people whose visual acuity falls between 20/70 and 20/200 in the better eyes with correction.

### 2. Educational definition

✓ From education perspective, it can be defined as any eye defect which hinders the educational performances of a child and entails some adaptations and modifications in various educational areas.

✓ Scott (1982) defined visual impairment as a condition in which students" vision is deficient to such a degree that it significantly affects their school functioning.

✓ Barraga (1983) defined visual impairment that is severe enough to warrant significant instructional adaptations for the student with visual impairment

### 2.2. Causes of visual impairment

A number of causes can result in visual impairment. Common causes of eye problems include:

### 📖 PROTECTIVE

- Trachoma.... causes blindness; affects the eyelid and cornea; an early sign is the drooping of the lids. **Trachoma**:-occurs when a very contagious microorganism called

Chlamydia trachomatis causes inflammation in the eye. It's often found in poor rural countries that have overcrowded living conditions and limited access to water and sanitation.

    📖 **REFRACTIVE**

- **Myopia** (nearsightedness) is the result of the eye ball being too long. The lens is too far from the retina causing the focus of rays of light from distant objects to fall in front of the retina.
- **Cataract** - is the result of cloudiness of the crystalline lens.
- **Glaucoma** - may cause damage to the eye due to increased pressure from accommodation of aqueous fluid.

    📖 **DIRECTIVE**

- Strabismus - (crossed eyes, squint) is failure of both eyes to direct their gaze simultaneously at the same object because of faulty muscle coordination.

➢ **Malnutrition a Cause for Visual Impairment**

The World Health Organization estimates that 90% of the world's 180 million people suffering from serious visual impairments live in developing countries. The major cause of blindness in these countries is due to malnutrition or trachoma, a degenerative bacterial disease that causes blindness slowly. Eye care in third world countries is virtually nonexistent because of the high rates of poverty.

**2.3. Types of visual impairment**

The terms partially sighted, low vision, legally blind, and totally blind are used in the **educational context** to describe students with visual impairments. They are defined as follows:

1. The expression 20/20 vision describes normal vision; it means that the person can see at 20 feet what people with **normal vision** see at 20feet.
2. **Low vision**
   ⇨ It refers to a severe visual impairment, not necessarily limited to distance vision. Low vision applies to all individuals with sight who are unable to read the newspaper at a

normal viewing distance, even with the aid of eyeglasses or contact lenses. They use a combination of vision and other senses to learn, although they may require adaptations in lighting or the size of print, and, sometimes, Braille. The expression between 20/200 and 20/70 in the better eye with correction describes a person's vision as **low vision.**

3. **Legally blind** indicates that a person has less than 20/200 vision in the better eye or a very limited field of vision (20 degrees at its widest point); and

4. **Totally blind students** learn via Braille or other non- visual media.

## 2.4. Characteristics of visually impaired children

The effect of visual problems on a child's development depends on the severity, type of loss, age at which the condition appears, and overall functioning level of the child. Many children who have multiple disabilities may also have visual impairments resulting in motor, cognitive, and/or social developmental delays.

A young child with visual impairments has little reason to explore interesting objects in the environment and, thus, may miss opportunities to have experiences and to learn. This lack of exploration may continue until learning becomes motivating or until intervention begins. Because the child cannot see parents or peers, he or she may be unable to imitate social behavior or understand nonverbal cues. Visual handicaps can create obstacles to a growing child's independence.

### 2.4.1. Physical and motor characteristics

The visual impairment in and of itself does not retard physical growth and development. In the first few months of life, there is no significant difference between children with visual impairment and those who are non-handicapped. However, in later age, motor development of the handicapped children show difference. Lack of vision from birth has a detrimental effect on motor development and delays the acquisition of early motor skills. Many children with visual impairment are retarded in their physical growth and development because of environmental factors, particularly the early environment of the home. Parents may overprotected and fail to provide opportunities to learn because they misunderstand the infants and young child's need for many structured opportunities to learn to use his/her body effectively in exploring his/her world.

### 2.4.2. Cognitive development

Because many concepts are learned through visual means, a substantial amount of research on other than standardized verbal intelligence tests suggests that the development of conceptual or

cognitive abilities in blind children lag behind that of sighted children. In particular, visually impaired children are more likely to do poorly on tasks requiring abstract thinking; they are much more likely to deal with their environment in concrete terms. Such lags is not due to inherent inferiority, rather it is due to lack of appropriate learning experiences.

### 2.4.3. Academic characteristics

The impact of visual impairment on academic performance is very much a function of the severity of the condition (that is the degree of vision loss & causes) and the age at which the student's vision was reduced. With appropriate assistance, people with visual impairments achieve academic success just like their neighbors& peers. The academic needs of students with visual impairment require a dual curriculum perspective that consists of the traditional academic content taught to their peers as well as the disability specific skills for children and adolescents who are blind. These include those related to concept development and communication such as Braille reading and writing, listening skills, math and keyboarding.

### 2.4.4. Language and Social Development

Children with visual impairments and children with unimpaired sight both go through a series of stages in their language development. Infants alter the quality of their cries to express different needs, move on to babbling, then to using one-word sentences, and eventually to constructing increasingly complex sentences as they refine their linguistic abilities and respond to input from adults. A visually impaired child (person first language) lacks the advantage of reinforcing and expanding his or her vocabulary through visual input. This child misses most types of body language and facial expressions, although tactile experiences provide an important alternative. more recent studies found that language of visually impaired children was more self-oriented and that the world meaning were more limited for them than for normally sighted children.

### 2.5. Assessment, Identification and Intervention of Visual Impairments

a. **Physical indictors**:
  ⇨ Red eyes,
  ⇨ Crusts on lids among the eye lashes,
  ⇨ Watery eyes or discharge,
  ⇨ Crossed eye,
  ⇨ Eyes that do not appear straight,

### b. Behavioral indicators

➤ The student rubs eyes often or while doing close visual work.

➤ The student shuts or covers one eye when he has difficulty seeing with that eye or tilts the head or thrusts the head forward.

➤ Unusual facial behaviors

➤ Unable to locate and pick up a small object.

➤ Light sensitivity or difficulty: A student may show unusual sensitivity to bright light by shutting their eyes or squinting. He may have a difficulty in seeing in dim light or inability to see after dark.

➤ Difficulty with reading: An unusual difficulty with reading or when working that requires bringing the book or object close to the eyes. But he may do very well in oral or spoken directions and tasks.

➤ The pupil may have difficulty with written work

➤ Difficulty with distance vision may result in the pupil avoiding the playground, or avoiding all gross motor activity

### 2.5.1. Identification

Usually *__Snellen chart__* is used. Most vision-screening procedures are based on the use of the Snellen chart plus careful observation of symptoms of eye trouble in the classroom. **The Snellen chart** is the most commonly used chart for measurement of distant, central field acuity. The standard letter chart may be used for literate children, but the symbol **(E chart)** is especially suitable. The testing distance for distant visual acuity is set at **20 feet (6 meters)** because rays of light are practically parallel at this distance. It is believed that the muscle controlling the shape of the lens in the normal eye in generally in a state of rest when viewing objects at this distance. Visual acuity of 20/200 indicates that the child reads at 20 feet the line which should be read by a normally seeing eye at a distance of 200 feet.

### 2.5.1. EDUCATIONAL AND SOCIAL SUPPORT PROVISION

**I) Low vision students**

➤ Use large writing on the chalkboard or visual aids.

➤ Read aloud what is written on the blackboard.

> ➢ Prepare teaching aids that children can read more easily such as large print materials.

> ➢ Children may have difficulty seeing the lines on writing paper. They can be given paper with thicker lines drawn on it.

> ➢ Some children will benefit from using magnifying aids.

> ➢ Encourage the children to use a pointer or their finger when reading. Children with poor vision need to learn through touch as well as through hearing.

> ➢ Pair the pupil with a seeing classmate who can assist her to organize their work.

> ➢ Use verbal praise or touch to give the child encouragement.

> ➢ Use the name of the pupils during class discussions so that the child knows who is talking.

> ➢ Make an abacus available to the child in math's lessons.

> ➢ Lessons can be taped using a cassette recorder for later playback at home or as revision.

> ➢ The child should be seated as close as possible to the teachers (no more than three metres away).

> ➢ Try to minimize classroom noises. Use a room that is in a quieter part of the school.

## II) Blind Children

**a. Use the Braille training -** Blind children should learn Braille. This gives them a means of reading and writing.

**b.  Orientation and Mobility**

**Orientation and mobility training (O & M)** helps a blind or visually impaired child knows where he is in space and where he wants to go (orientation). When planning an **O & M program** for children the focus of training may include such things as:

> ➢ **Sensory awareness**: gaining information about the world through hearing, smell, touch and proprioception

> ➢ **Spatial concepts**: realizing that objects exist even if not heard or felt, and understanding the relationships which exist between objects in the environment,

- ➢ **Provide life skill training:** self- esteem(self-value), self-concept(self-image),self-awareness (self- knowledge) and self-efficacy(self-belief)),
- ➢ **Searching skills**: locating items or places efficiently
- ➢ **Independent movement**: This includes crawling, rolling, walking, etc.
- ➢ **Sighted guide:** using another person to aid in travel.

C. **Protective techniques**: specific skills which provide added protection in unfamiliar areas
  - ❖ **Cane skills**: use of various cane techniques to clear one's path or to locate objects along the way.

# CHAPTER THREE

## Hearing Impairment

### 3.1. Definition

🔲 Hearing impairment occurs when there's a problem with or damage to one or more parts of the ear.

### 3.2. Types of Hearing Impairment

**I) Based on the position of the ear** at which the problem leading to hearing impairment occurs, hearing impairment can also be classified into conductive hearing loss, sensori-neural hearing loss and mixed hearing loss.

    **a. Conductive hearing loss r**esults from a problem with the outer or middle ear, including the ear canal, eardrum. A blockage or other structural problem interferes with how sound gets conducted through the ear, making sound levels seem lower. Any condition hindering the sequence of vibrations or preventing them from reaching the auditory nerve may cause a conductive loss. In many cases, conductive hearing loss can be corrected with medications or <u>surgery</u>.

    **b. Sensorineural hearing loss** results from damage to the inner ear (cochlea) or the auditory nerve. The most common type is caused by the outer hair cells not functioning correctly. The person has trouble hearing clearly, understanding speech, and interpreting various sounds. This type of hearing loss is permanent. It may be treated with hearing aids or, in severe cases, a cochlear implant.

    **c. Mixed hearing loss** occurs when someone has both conductive and sensorineural hearing problems.

**II)** Pasonella and Carat (1981), from legal point of view, define hearing impairment as a generic term indicating a continuum of hearing loss from **mild to profound**, which includes the sub-classifications of the hard of hearing and deaf.

    **a.** *Hard-of-hearing* is used to describe persons with enough residual hearing to use hearing (usually with hearing aid) as a primary modality for acquisition of language and communication with others. It usually ranges between 26 dB to 70 dB. The condition can adversely affect the child's educational performance to some extent.

**b.** *Deaf* is used to describe persons whose sense of hearing is non-functional for ordinary use in communication with or without a hearing aid. The hearing loss is usually above **70dB**. It is so severe that the person is impaired in processing linguistic information which adversely affects the educational performance.

## III. <u>Based on the degree of hearing loss</u>

The following table shows decibel groupings and related problems in language and other dimensions.

| Degree of hearing loss | Decibels (dB) | Possible effects on language and speech | Possible effects on adjustment and behavior |
|---|---|---|---|
| **None** | **0** | - | - |
| **Mild** | **20-40** | ➢ Slight difficulties and psychological Confusions | slight deficit |
| **Moderate** | **41-70** | ✓ Difficulties with normal speech,<br>✓ receptivity,<br>✓ some articulation errors,<br>✓ some errors with functional words | Some educational difficulties may show emotional /behavioral difficulties |
| **Severe** | **71- 90** | ✓ Limited understanding of speech,<br>✓ difficulty in speaking intelligibly,<br>✓ omissions in spoken language,<br>✓ limited vocabulary | Some emotional, social and educational difficulties |
| **Profound** | **90+** | ➢ May have marked difficulties in understanding speech and<br>➢ speech may be unintelligible | ➢ Educational attainment may be severely delayed,<br>➢ behavior and social skills may be immature |

### 3.3. Causes of Hearing Impairment

a) **Otitismedia**: - which is the medical term for an ear infection that affects the middle ear. Ear infections cause a buildup of fluid or pus behind the eardrum, which can block the transmission of sound.

b) **Medications.** Certain medications, such as some antibiotics and <u>chemotherapy</u> drugs, can cause hearing loss.

c) **Loud noise.** A sudden loud noise or exposure to high noise levels (such as loud music) over time can cause permanent damage to the tiny hairs in the cochlea, which then can't transmit sounds as effectively as they did before.

d) **RH factor** (chromosomal incompatibility).

### 3. 4. Developmental Profiles of Children with Hearing Impairment

Children with hearing impairment have limited ability to hear. This disability may affect their communication, cognitive, academic, physical, and behavioral characteristics.

### 3.4.1. Communication Characteristics

Communication problems can interfere with interpersonal relationship of students with hearing impairment. Such students receive all or part of their education in regular classrooms. Their inability to communicate with other students can delay their language development.

Moreover, they communicate in ways that are different from those around them. The impairment can inhibit their social interaction and development.

It is indicated that the effect of hearing loss are invasive and can create psychological stress. Deaf children are often passive participants in communication as their parents and caregivers tend to deprive them of any type interpersonal relationships. As a result, the vocabulary and syntax grow slowly (Moors, 1996).

### 3.4.2. Academic Characteristics

Moores (1996) contends that the severity of the hearing loss, the age of its onset, and hearing status of the student's parents are related to the academic success experienced by students with hearing impairments. Children and young adults who have **mild hearing losses** perform generally better academically than those with severe loss. Students who are **deaf** from birth tend to have more difficulty acquiring academic skills than those who hear.

Students with hearing impairments from families of **high socio-economic status** and **with hearing parents** tend to experience **less academic difficulties** than students from families of **low socio-economic status or from those students whose parents are hearing impaired**. In a setting where the teaching-learning process favors hearing children and is not responsive to the special educational needs of the hearing impaired group, the academic performance of the group is naturally lower than the hearing. First and fore most the absence of sign language and lack of hearing aid provision put the deaf and the hard of hearing at a disadvantage in teaching learning process.

### 3.4.3. Psychosocial Characteristics

Regarding social, emotional and behavioral functioning of the deaf and hard of hearing, Moores (1996) describes that people with hearing impairments are abnormal and experience many problems so that they need access to services that encourage their optimal development.

According to Ysseldyke and Algozzine (2003), recent evidence suggests that those who are deaf prefer to be with others who are deaf; adults who are deaf tend to cluster in groups, socialize, and marry. Deaf culture is a concept implying that people who are deaf experience and design their lives differently from the hearing people with whom they live; it is very essential for deaf people. Most of them see the experiences and sign language of deaf communities as the most important factors in their lives. Deaf people teach one another how to function in society as well as how to get along with others. Sometimes parents who are deaf want their children to be deaf so they can share the culture.

### 3.5. Identification, Assessment and Intervention

#### 3.5.1. Identification

There are several symptomatic behaviors that are used to determine whether a hearing impairment may be present. Once a child is suspected and determined that he/ she has a hearing impairment, parents or teachers must refer the child for further audio-logical or medical evaluation to determine the type or degree of hearing loss. These evaluations will help to decide on the type of hearing aid needed, and on the nature of school placement. Parents and teachers need to have knowledge of the normal auditory development in order to understand the symptoms of hearing impairment.

Some behavioral indications and warning signs a possible hearing impairment that teachers and parents should be alert to in their everyday situations include the following.

➢ Inattention, restlessness, distraction of others, more responsiveness in quiet conditions.

➢ Giving inappropriate answers to questions; watching and following what other children do.

➢ Louder or softer voice than is usual.

➢ Slowness in responding to simple verbal instruction, with frequent requests for repetition.

➢ Some irritability or typical aggressive outbursts more frequent behavioral upsets in school.

➢ Speech limited in vocabulary or structure and use of gesture

➢ Best work in small group.

Yesseldyke and Algozzine (1995) also listed ten potential signs of hearing-impaired child in the school.

1. Difficulties following oral presentations and directions
2. Watches lips of teachers or other speakers very closely.
3. Turns head and leans toward speaker
4. Uses limited vocabulary
5. Uses speech sounds poorly
6. Shows delayed language development
7. Does not often respond when called form behind
8. Generally inattentive during oral presentation
9. Constantly turns volume up on radio or television

### 3.5.2. Assessment

According to the literature reviewed by Tirussew (2000), several assessment techniques are used to screen a child with hearing problems. Among others the most practical ones include:

1. Careful observation of main symptoms of hearing loss mentioned above.

2. Studying the causes of loss and its consequences in collaboration with parents

3. Distraction tests, introducing a sound source behind and to either side of the child. The child's response may be an obvious turning of the head.

### 3.5.3. Intervention

According to Heward & Orlansky (1988) the following characteristics are among these considered most critical to the effective teaching of hearing impaired students

- Providing language instruction
- Teaching small groups of hearing impaired students who function on different levels.
-  Developing and adopting instructional materials and enhancing positive self-concept.
- Using information from various assessment procedures to develop IEP

   (Individualized Educational program) and dealing with crisis calmly an effectively.

In practical instructional process the teachers for hearing impaired should pay attention to the following **tips** (Yesseldyke and Algozzine, 1995).

# CHAPTER FOUR

## Children with behavioral disorder

### 4.1. Definitions

One of the most confusing and potentially explosive labels that can be attached to a child (and, perhaps, family) is behavioral disorder.

Although behavior disorder in children has been recognized as a problem in psychiatry and special education for well over a century, there is no definition of behavior disorder that is generally agreed upon by the professionals. There are several reasons for the lack of a clear definition; the followings are some of them:

There are measurement problem

➡ Absence of clear agreement about what constitutes good mental health

➡ Several theories use their own terminology and definition of behavioral disorder

➡ What is appropriate or inappropriate is quite different across different society and cultural groups

➡ Finally, disordered behavior sometimes occurs in conjunction with other handicapping conditions, making it difficult to tell whether one condition is the result or the cause of the other.

In discussing emotional and behavioral disorders, the Individuals with Disabilities Education Act (IDEA) use the term serious emotional disturbance and define it as follows:

'… a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects educational performance'

➤ An inability to learn that cannot be explained by intellectual, sensory, or health factors;

➤ An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;

➤ Inappropriate types of behavior or feelings under normal circumstances;

➤ A general pervasive mood of unhappiness or depression; or

➤ A tendency to develop physical symptoms or fears associated with personal or school problems.

According to Bower, children must exhibit these characteristics to a marked extent: for a prolonged period of time before the designation "emotionally handicapped" is justified.

Dunn (1973) defines behavioral disabilities as a variety of excessive, chronic, deviant behaviors ranging from impulsive and aggressive to depressive and withdrawal acts,

(1) Which violate the perceivers' expectations of appropriateness, and

(2) Which the perceiver wishes to see stopped.

## 4.2. Characteristics of Behavioral Disorder

Smith, etal (1985) have summarized the behavior problems of elementary school children in to three forms:

a) Under achievement

b) Acting out

c) A combination of school failure and anti-social behaviors

Dunn (1973) summarizes the characteristics of behavior disorder in the following ways:

- Show marked dislike for school
- Resent school routine and restrictions
- Fail in a number of subjects
- Have repeated one or more grades
- Short attention span
- Oppose authority
- Fight more frequently than the average child
- Have substantial fears and phobias
- A void structural learning situations

Despite their normal (average) intelligence, most show specific learning disabilities. Teachers may find in them:

➢ short attention spans;

➢ oppose authority;

➢ fight more frequently than the average child;

➢ have substantial fears and phobias;

➢ avoid structural learning situations.

Smith and Lucksson (1995) forward the following possible symptoms to identify children and youth with behavioral disorders and emotional disturbances.

1. Immature social skills leading to few or no friends

2. Problems with family and teachers' relations

3. Hyperactive behavior exhibited by excessive movement

4. Aggression towards self or others

5. Impulsivity

6. Feelings of depression and unhappiness

7. Withdrawal into self

8. Anxiety of fearfulness

9. Expressing ideas of suicide

10. Inability to pay attention for long period

## 4.3. Broad dimensions of behavioral problems

Children with emotional or behavioral disorders are characterized primarily by behavior that falls significantly beyond the norms of their cultural and age group on two dimensions: externalizing and internalizing. Both patterns of abnormal behavior have adverse effects on children's academic achievement and social relationships.

### A. Externalizing Behaviors

The most common behavior pattern of children with emotional and behavioral disorders consists of antisocial or externalizing behaviors. In the classroom, children with externalizing behaviors frequently do the following:

- Yell, talk out, and curse

- Disturb peers

- Hit or fight

- Ignore the teacher

- Complain

- Argue excessively

- Destroy property

- Do not comply with directions

- Have temper tantrums

- Are excluded from peer-controlled activities

- Do not respond to teacher corrections

All children sometimes cry, hit others, and refuse to comply with requests of parents and teachers; but children with emotional and behavioral disorders do so frequently. Also, the antisocial behavior of children with emotional and behavioral disorders often occurs with little or no provocation. Aggression takes many forms; verbal abuse toward adults and other children, destructiveness and vandalism, and physical attacks on others. These children seem to be in continuous conflict with those around them. Their own aggressive outbursts often cause others to strike back. It is no wonder that children with emotional and behavioral disorders are seldom liked by others and find it difficult to establish friendships.

Many believe that most children who exhibit deviant behavioral patterns will grow out of them with time and become normally functioning adults. Although this optimistic outcome holds true for many children who exhibit problems such as withdrawal, fears, and speech impairments, research indicates that it is not so for children who display consistent patterns of aggressive, coercive, antisocial, and/or delinquent behavior. The stability of aggressive behavior over a decade is equal to the stability of intelligence.

A pattern of antisocial behavior early in a child's development is the best single predictor of delinquency in adolescence.

Preschoolers who show the early signs of antisocial behavior patterns do not grow out of them. Rather, as they move throughout their school careers, they grow into these unfortunate patterns with disastrous results to themselves and others. This myth that preschoolers will outgrow antisocial behavior is pervasive among many teachers and early educators and is very dangerous because it leads professionals to do nothing early on when the problem can be effectively addressed.

Children who enter adolescence with a history of aggressive behavior stand a very good chance of dropping out of school, being arrested, abusing drugs and alcohol, having marginalized adult lives, and dying young. Students with emotional and behavioral disorders are 13.3 times more likely to be arrested during their school careers than nondisabled students are, and 58% are arrested within five years of leaving high school.

### B. Internalizing Behaviors

Some children with emotional and behavioral disorders are anything but aggressive. Their problem is the opposite—too little social interaction with others. They are said to have internalizing behavioral disorders. Although children who consistently act immaturely and withdrawn do not present the threat to others that antisocial children do, their behavior creates a serious impediment to their development. These children seldom play with others their own age. They usually do not have the social skills needed to make friends and have fun, and they often retreat into daydreams and fantasies. Some are fearful of things without reason, frequently complain of being sick or hurt, and go into deep bouts of depression. Obviously, such behavior limits a child's chances to take part in and learn from the school and leisure activities in which normal children participate.

Children who exhibit the internalizing behaviors characteristic of some types of anxiety and mood disorders may be less disturbing to classroom teachers than are antisocial children. Because of this, they are in danger of not being identified. Happily, the outlook is fairly good for the child with mild or moderate degrees of withdrawn and immature behavior who is fortunate enough to have competent teachers and other school professionals responsible for his development. Carefully targeting the social and self-determination skills the child should learn and systematically arranging opportunities for and reinforcing those behaviors often prove successful.

It is a grave mistake, however, to believe that children with emotional disorders that result primarily in internalizing behaviors have only mild and transient problems. The severe anxiety and mood disorders experienced by some children not only cause pervasive impairments in their educational performance they also threaten their very existence. Indeed, without identification and effective treatment, the extreme emotional disorders of some children can lead to self-inflicted injury or even death from substance abuse, starvation, or suicidal behavior.

### 4.4. Causes of Behavioral Disorders

Smith and Lucksson (1995) believe that the causes of behavioral disorders in most individuals are usually unknown. They, however, identify *four general areas where we can find possible reasons for behavioral disorders: (1) Biology (2) environment or family (3) school (4) society.*

If the reasons of behavior problems in a particular child can be pinpointed at all, they are likely to be the result of multiple and overlapping factors.

### A) Biology

- Researchers have discovered biological causes for some types of disorders in some children. Children born with **fetal alcoholic syndrome (FAS),** for example, exhibit problems in impulse control and interpersonal relations that result in brain damage caused by their mothers' drinking alcohol during pregnancy. Malnutrition can cause problems in reasoning and thinking capacity of children. Disorders such as schizophrenia may have genetic foundation. Neuro chemical imbalance
- Chromosomal disorder
- Auditory and central nervous system impairment
- Easy going temperaments etc.

### B) Environment/Family

Behavioral disorders may result from negative interactions in the family. Unhealthy interactions can create disorders and aggravate the existing problems. *Harmful family interactions include abuse and neglect, lack of supervision, punitive discipline, low rate of positive interactions, and poor adult role models*, etc. Healthy family interactions, on the other hand, include warmth and responsiveness, consistent discipline, demand for responsible behavior, rewarding desired behavior, can promote positive behaviors in children.

### C) School

Teachers have remarkable influence in their interactions with students. Teachers' expectations influence the questions they ask students, the feedback they give and the number and character of interactions with students. Teachers sometimes also cause or aggravate behavioral disorders. For instance, a teacher who is unskilled in managing classrooms or insensitive to students' individual differences may create an environment where aggression, frustration, and withdrawal are common responses

### D) Society

Societal problems can also cause or aggravate behavioral disorders. The extreme poverty in which some children live- usually accompanied by poor nutrition, disrupted family, feelings of hopelessness, and violent neighborhoods, can lead to or aggravate behavioral disorder. Many

children might have healthy behaviors become vulnerable when faced with stressors such as family disruption, poverty, death, illness and violence.

## 1. PSYCHODYNAMIC CONCEPT

### *Personality Development*: **Freud and Eriksson**

From a psychodynamic perspective, emotional disturbance is thought of as disrupted personality development. Freud described stages of psychosexual development defined by a predominant source of gratification. Eriksson expanded upon Freud's thinking and conceptualized development as being psychosocial in nature.

According to psychodynamic thinking, emotional disturbance lies in the personality structures which are the product of development: the id, ego, and superego. **The id** is the inherited source of instincts, drives, and desires. The **ego**, which begins to develop at the end of the oral stage, must cope with the drives of the id and mediate between them and constraints imposed first by society and later by the superego. The superego separates from the ego with the resolution of the Oedipus or Electra complex at the end of the phallic stage. At this point, the child begins to incorporate societal standards as represented by the same-sex parent. In mediating between the impulses of the id and the constraints of the superego, the ego establishes patterns of coping known as defense mechanisms. Some of these patterns are familiar: the frustrated employee who goes home and kicks the dog is thought to displace her hostility; the artist sublimates sexual desires into artistic expressions; or the forgetful individual represses particularly embarrassing incidents. The presence of defence mechanisms is not itself indicative of disturbance, though the exclusive reliance on a single coping strategy is. Also unresolved conflict of unusual stress may disrupt the development of the personality structures themselves, so that development is - abnormal or too much energy is invested to compensate for deficiencies.

## 2. BEHAVIOURAL CONCEPTS

### i. *Analysis of Deviant Behaviors*

According to a behavioral perspective, all behavior is acquired according to the same principles, although not all behavior is regarded as useful or constructive. Behaviors, which occur with excessive frequency or intensity, behaviors under poor stimulus control, and behaviors that compete with or prevent the acquisition of appropriate behaviors are considered maladaptive. A behavior problem results from unfortunate environmental contingencies (the relationships

between behavior and its consequences). If rewarding consequences follows behavior, then it is strengthened and more likely to occur in the future. If punishing consequences follows behavior, then it is less likely to recur, but emotional side effects may occur under similar circumstances in the future. Thus, in the case of excessive patterns of behavior, reinforcement may follow increasingly frequent or intense forms of the behavior. In the case of behavioral deficits, reinforcement following appropriate behavior may be inadequate, if present at all. Emotional outbursts may arise in response to excessive punishment.

## 3. ECOLOGICAL CONCEPTS
**Theory**

From an ecological perspective, disturbance is thought to be an outcome resulting from a mismatch between the child's behavior and the demands of the child's environment. These demands may take the form of societal, parental, school, or peer group expectations. The severity of the disturbance is a function of the number (or importance) of mismatches or of the uniformity of the response which the child's behavior elicits. Since the core of the problem resides in the interaction of children and their environments. Solutions might involve changing children's behavior, changing the nature of the environmental demands, or changing both.

### 4.5. Educational Intervention

There are different approaches for educating behavior problematic children.

The following is a summary as provided by Dunn (1973)

Dunn summarizes the following approaches for teaching children with behavioral problems:

**1) The psychodynamic approach**

> ➢ Accept the behavior observed by the child
> ➢ Establish close interpersonal relations with the child
> ➢ Encourage the child to express thoughts, feelings and accept these feelings

**2) Behavioral Modification approach**

- Encourage imitation (good role models)
- Use systematic desensitization

- Use reinforcement after the desired behavior (Use either positive or negative rein forcer)

## 3) The Ecological approach

The major goal is to change what is considered deviant by the community. The school can be divided in to two equal compartments

a) Focus on cognitive development and mastery of academic work
b) Focus on entering the world of the child in schools, his/her family, or the students In general improving the environment at home and school can be used to educate children with behavioral problems in ecological approach.

## 4) Cognitive Approach

➢ Use different strategies to improve memory

# CHAPTER FIVE

## Gifted and Talented Children

### 5.1. Definition of Gifted and Talented Children and Youth

Schulz, et. al, (1984) argue that there is no one theory-based definition of gifted and talented children that will fit all programs and situations. Although it is common and acceptable to use the terms interchangeably, academic ability refers to as giftedness and artistic ability as talent, resulting in academically gifted and artistically talented.

The tem gifted and talented children and youth means children and youth who give evidence of high performance capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields and who require services or activities not ordinarily provided by the school in order to fully develop such capabilities.

The most commonly used definition of gifted and talented was provided by the U. S. Office of Education.

> *Gifted and talented children are those identified, by professionally qualified persons who, by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs in order to realize their contribution to self and society. Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination.*

1. *General intellectual ability*

2. *Specific academic aptitude*

3. *Creative or productive thinking*

4. *Leadership ability*

5. *Visual and performance arts (Marland 1972 in Schulz, e. al, 1984)*

It is possible to understand from the above definitions that giftedness is not restricted to the cognitive domain. It recognizes many areas in which a student might display his/her giftedness and talents. It also recognizes that all gifted students do not achieve to the fullest and may not be gifted in all areas.

### 5.2. CAUSES OF GIFTEDNESS

Giftedness is a factor of heredity, biological and environmental factors.

**a) <u>Heredity</u>**

It is common knowledge that a child's giftedness increases when its parents have higher than average intelligence and provide a better than average environment for the child

**b) <u>Biological factors</u>**

Biological factors that are not generic may also contribute to the determination of giftedness. **Nutritional and neurological factors** may partially determine how intellectually competent a child becomes. This implies that a child receiving proper nutrition and with proper neurological functioning will have its giftedness safeguarded. It, however, does not follow that superior nutritional and neurological status in early life contributes to superior intelligence (Fish etal, 1976)

**c) <u>Environmental factors</u>**

Social and cultural factors have been found to contribute a lot to giftedness. Bloom discovered that the home environment and the "gifted" persons' parents were almost entirely responsible for nurturing the child's early interests and developing their skills to extraordinary levels.

### 5.3. Developmental Characteristics of Gifted and Talented Children and Youth

### 5. 3. 1. Cognitive Characteristics

Most children who are gifted function at a high intellectual level. This level may be reflected in typical academic skills but extended beyond the traditional skills which include more abstract processes. The teacher finds that gifted students are far ahead of the group and they may not be satisfied to leave facts alone. Klein (1989) in Schulz, et. al, (1984) mentions some cognitive abilities of a gifted student. He/she:

- ➢ asks many questions, not satisfied with simple answers
- ➢ has good memory
- ➢ begins to read at early age (several grade levels above age-mates)
- ➢ likes to experiment, hypothesize, and test out new ideas
- ➢ has good reasoning ability,
- ➢ understands and generalizes abstract concepts and complex relationship easily and quickly

➢ has a large stock of vocabulary.

Ysseldyke &Algozzine (1995) also argue that gifted and talented students have better creative ability than most of their age-mates. Moreover, they have good divergent and convergent thinking abilities. Students who perform well on measures of *divergent thinking* are often considered as creative. They demonstrate fluency (produce many words, phrases, sentences and variety of associations), flexibility (offer variety of alternative solutions to a problem), originality (use rare responses and unique words), foresight (see alternative solutions ahead of time), and elaboration (provide details).

Students who perform well in convergent thinking have good abilities of reasoning out, memory, classification, drawing conclusions. They show high academic aptitudes. Regarding the creative ability of gifted children, it is said that they show superior performance.

Ysseldyke & Algozzine (1995) discuss academic, physical, behavioural and communication behaviours of this group of children as follows.

### 5.3.2. Academic Characteristics

➢ Gifted students are usually recognized for their superior achievement in one or more school subjects. Their performance is generally well above average when compared to their age mates. They often show superior abilities in creative and other areas. However, not all students who are gifted and talented perform well in school. Often their superior abilities create interpersonal problems with their peers. Research findings show that gifted students often drop out of school because the instruction is not challenging enough.

➢ Thus, they are not motivated to perform well in the school. They are victims of poor teaching and learn to underachieve. To be considered as gifted, in most states students have to perform significantly above grade level academically in addition to earning high scores on intelligence tests.

➢ Gifted and talented students also do not perform at high levels in all subjects. This sometimes causes conflicts with parents and others when they expect uniformly high achievements. Gifted and talented students may demonstrate high achievements in languages, arts and in social studies but average or even below average performance in mathematics.

### 5.3. 3. Physical Characteristics

According to the study by Terman& Oden (1951) in Ysseldyke & Algozzine, (1995) gifted and talented children have slightly better physical appearance than the average child. Others argue that the average physical and athletic abilities of gifted and talented children are looked down when compared to their superior abilities in other areas such as cognitive and academic skills.

### 5. 3. 4. Behavioural Characteristics

Often people think that gifted and talented students are social isolates and even weird (odd). But most research contradicts this view, saying gifted and talented students are socially popular and enjoy relatively high social status. They have some concomitant problems related to their needs and abilities to succeed in their life.

Gifted and talented students have unique social and emotional needs. Teachers should be aware of and work toward meeting them.

 Their affective demands include the following characteristics.
- ✓ The need to be stimulated through association with peers and interaction with adult models.
- ✓ The need to accept their own abilities.
- ✓ The need to accept their roles as the producers of knowledge and creative works
- ✓ The need to develop habits of inquiry and research and independence in investigation
- ✓ The need to avoid the difficulty of meeting high teacher and parent expectations

 In relation to the behavioural characteristics, Schulz, et al (1984) presents the following affective characteristics of gifted and talented children.
- ➢ Sensitivity to themselves, others and their environment
- ➢ Preference to be with adults or older children
- ➢ Intensity of concentration, determination and commitment to tasks
- ➢ Perfectionism, inner motivation to be perfect, resulting in high level performance
- ➢ Leadership ability
- ➢ Moralistic, strong sense of wrong and right, deep sense of conviction
- ➢ Resourcefulness
- ➢ Advanced sense of humor

**5.3. 5. Communication Characteristics**

Gifted and talented students typically communicate at higher level than their chronological age mates. They tend to associate and communicate with other children and adolescents who communicate at their level. As they seek their own levels in communicating, gifted and talented students often enjoy conversation with adults and older peers than their age mates. This has an effect on natural and social groupings in and across classrooms and important to consider when grouping students for instructional purpose.

**5 .4. Screening and Evaluation**

According to Schulz et al. (1984), it is important to identify gifted and talented students in school in order to design programs that are appropriate for their needs. The identification of the student's eligibility requires two steps: screening and evaluation.

**Screening**

Through screening procedures, students with unusual ability in any area may become part of a talent pool. This pool can then be drawn on to find candidates for differentiated program. Clark (1983) suggests the following screening strategies.

1. Teacher selection and nomination for testing

2. Group achievement tests

3. Group intelligence tests

4. Parent interviews

5. Peer identification

6. Pupil's work and achievement awards

**Evaluation**

Clark (1983) holds that techniques of evaluation should be closely related to the definition used by the school system and the nature of the program planned for the students. In planning evaluation, programs with multidimensional approach frequently employ the five components of the American Office of Education definition: ***general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability and visual and performance arts.***

There are various problems in the identification of process of gifted and talented students. For example, most of the identified gifted and talented students are from advantaged backgrounds. Traditional methods of identifications are not adequate to identify students from disadvantaged background and young gifted children.

The role of teachers in the processes of screening and evaluation is very important. For instance, in the absence of adequate screening and evaluation instruments, teachers make use of informal checklists useful for identifying potentially gifted children in their classrooms.

**5.4.1. Instructional Approaches**

According to Clark (1983) again in today's educational system, students who are gifted and talented are served through two kinds of instructional approaches: enrichment and acceleration or advancement.

&#x2751; **Enrichment**: is the process of providing experiences or activities which are beyond the standard curriculum. Students are given more works (assignments) that extend their knowledge beyond what their peers are learning. In simpler words, the purpose of enrichment is to provide an extensive range of additional experiences so the students' mastery of important ideas embedded in the standard curriculum is strengthened. They are often enrolled in the same grade as their age mates. But gifted students can attend special programs at other schools or may participate in university programs which extend their learning. It may be provided through summer, vacation, and weekend programs designed to provide activities and experiences new to the students. Despite the mode followed, the interest of the learner should be given primary attention.

There are three enrichment tactics.

1. Those that provide students with opportunities to practice and polish skills and contents that are part of the regular curriculum

2. Those that extend knowledge in content areas that student have studied in the regular curriculum

3. Those that introduce knowledge and skills that are not part of the regular curriculum

&#x2751; *Acceleration*: is the process of passing students through the educational systems as quickly as possible. The technique saves years of schooling for students who will probably pursue careers requiring advanced and prolonged education. There are different ways of accelerating students.

   1. *Early school admission*: the child is allowed to enter kindergarten at a younger than normal age

   2. *Skipping grades*: the child completely eliminates one semester or grade in school.

3. ***Telescoping grades***- the child covers the standard material but within shorter time. For instance, a 3-year junior program could be completed within 2-years' time.

4. ***Advanced placement***- the student takes courses of college while still in high school**.**

5. ***Dual enrollment*** *in high school and college*-The student takes college courses while he/she is still in high school, shortening the college program.

6. ***Early college admission***-an extraordinary advanced student may join college at the age of 13, 14 or 15 years.

The following tips are suggested by Ysseldyke & Algozzine (1995) for teachers to manage classes of gifted and talented students.

➢ Provide alternative instructional activities addressing student interest & preference

➢ Provide guest speakers, field trips, practical demonstrations, and other enrichment activities

➢ Model high level thinking skills and creative problem solving approaches

➢ Develop instructional activities that generate problems requiring different types of thinking and solutions

➢ Allow students to move through the curriculum at their own pace

➢ Identify advanced content and assign independent reading, projects, workshops, reports, and other enrichment activities

➢ Provide opportunities and an environment for sharing novel ideas and solutions to practical problems

➢ allow students who are gifted to have input in deciding how classroom time is allocated

➢ Provide and encourage independent learning opportunities

# CHAPTER SIX

## Intellectual Disability

### 6.1. Definition

Mental retardation is substantial limitation in present functioning. It is characterized by significantly sub-average intellectual functioning existing concurrently with related limitations in two or more of the following adaptive skill areas: communication and self-care, home living and social skills, community use and self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests before age 18 (AAMR, 1992).

### 6.2 Developmental Characteristics of Children and Youth with Mental Retardation

Researchers have found out that in comparison with their non-retarded peers, students with mental retardation are characterized by slow rate of learning and delays in most areas of development. They are expected to show delays across the various domains: cognitive, motor, social development, self-help skills, language use and development, and academic readiness skills. Retarded children show delays in all areas of development because of their sub-average intelligence, but children with learning disability display developmental imbalance in only selected areas (Taylor & Stenberg, 1989).

### Cognitive Characteristics

Children need basic skills in order to receive information through instruction. The following are among the skills needed (Taylor and Stenberg, 1995).

➢ **Attention**: research findings indicate that individuals with mental retardation show deficient performance because they pay attention to few dimensions and because they have difficulty in identifying certain relevant dimensions used during discrimination exercise.

➢ **Memory**: children with mental retardation have deficits in memory, especially in short-term memory processes and inability to use good learning strategies.

➢ **Transfer of learning**: they are also said to experience difficulties in applying information in new situations that are somewhat different from those experienced during initial learning.

➢ **Relativity**: the ability to make relative comparisons along dimensions of size, distance, time, and order is the basis for more complex involving measurement and sequencing. Children with mental retardation exhibit limitations in performing almost all tasks.

- ➢ **Imitation**: imitation is a skill children develop naturally through play and learning experiences at home and with peers. Many retarded children need specific instruction and practice before they can imitate a model.
- ➢ **Speech and language:** language is a cognitive process of making object-label association. Students with mild or moderate mental retardation follow the same basic order of language development as children without any retardation. However, moderate delays in speech and language are common among the children with mild mental retardation.

## Academic Characteristics

Students with mental retardation perform poorly in most academic areas but at a level expected from their scores of intelligence. The poor performance is usually attributed to a cumulative failure effect. Because of the depressed mental age (MA) retarded children are not ready to begin the traditional school curriculum at the same chronological age (CA) as are non-retarded children.

They begin school later, compared with their normal peers of the same levels. Faced with repeated failure and frustration in the classroom, they fall further and further behind academically. Parallel to the cumulative effect of academic failure, there is also a cumulative effect of frustration caused by inappropriate expectations and tasks, resulting in a child with behavior problems in a class.

## Social/ Emotional Characteristics

Generally speaking, individuals with mental retardation exhibit socially inappropriate and emotionally immature behaviors. Inappropriate behaviors, antisocial behaviors and odd mannerisms can lead others to reject those with mental retardation. Children with severe and profound mental retardation have difficulty with independent living skills such as dressing, eating, exercising bowel and bladder control, and maintaining personal hygiene that they often need to be cared for throughout their lives.

Children with mental retardation are sometimes characterized by:
- ✓ Rigidity which in part results from social deprivation and decreased motivation for social reinforcement.
- ✓ Most of them are not self-motivated.
- ✓ Have poor self-images or self-concepts, self-esteem, self-efficacy.
- ✓ Mildly retarded children placed in regular classes tend to be more fearful of failure.

### 6.3. Causes of Mental Retardation

In most cases the causes of mental retardation are not known**.** Taylor & Stenberg (1989), state that only about 6% to 15% of the causes of mental retardation are known. However, there are *three hundred known factors* or suspected causal factors in mental retardation. But such factors account for fewer than 2.5% of the retarded population. These scholars identify two broad categories of causes of mental retardation: *organic/physiological causes* and *cultural-familial causes*.

### A. Organic/Physiological Causes

### 1. Hereditary factors

Hereditary factors have profound effects on individual's intellectual, social and personality development. Thus, any defect in genetic materials could result in mental retardation.

### 2. Hormonal and metabolic conditions

There are many hormonal and metabolic disorders that may result in mental retardation. The most frequent and best-known ones include:

*I)*    **Down syndrome-** is a disorder which involves an abnormal pattern of chromosomes resulting in mental retardation. The risk of having a child with **Down syndrome** increases with maternal age after 30 or 35 years.

*II)*    **Hydrocephaly**- is an accumulation fluid in the cranium causing enlargement of the head, and

### 3. Prenatal influence

*Teratogenesis* refers to changes that occur in uterine environment during critical developmental periods. These changes may result from metabolic abnormalities of the mother or from viral, physical or chemical agents or events that may contribute to structural deficits. Examples of these agents include *radiation, viruses, vitamins, hormones and drugs*. Heavy alcoholic intake of pregnant woman, poor nutrition, birth injures, insufficient oxygen during or shortly after birth, prematurity, lead poisoning, carbon monoxide poisoning, ingestion of other toxins, blood incompatibility, and allergic reactions can result in brain damage of the fetus and consequent retardation.

### 2. Postnatal conditions

*Postnatal physiological or organic problems* that can result in retardation include infections such as *meningitis, lesions (injures)* and *hemorrhage (bleeding).* There can also be **toxic**

**influences** such as ingestion of lead and other poisons. Malnutrition in infants and young children can also cause developmental problems or permanent retardation.

## B. Cultural-Familial Causes

Cultural-familial retardation refers to etiological factors in 75% of retarded children for whom there is no organic causes and whose retardation is estimated to be a combination of hereditary and environmental factors. Children in this category are usually mildly retarded and incidence of retardation is higher in their families.

Characteristics found more frequently in the families of these children include a higher number of complications during pregnancy, delivery and infancy, large family size, unskilled and semiskilled labor. According to Tirussew (2000), the following are some of the aspects embedded in familial cultural retardation.

- o **Environmental influences** (psychological deprivation, sensory deprivation, severe neglect, malnutrition, complications of severe mental disorders)
- o The individual may have never been properly **reinforced** for those behaviors which need to be learned.
- o The child may have been **severely punished for specific behaviors**, causing an overall suppression of behaviors.
- o The child may have actually been reinforced for dysfunctional behavior patterns

## 6.4. Instructional Strategies and Teaching Tactics for the Intellectual Disability Children

The most appropriate kind of educational setting and program depends on severity of the retardation; it ranges from regular classes for the mildly and moderately retarded to institutions for the severely and profoundly retarded. The most common settings are **regular classes and resource rooms** where the children receive specific help for a part of the day and specialized classes or schools the other part of the day.

- &#x1F4D6; **Mildly retarded children**, for example, need readiness or skills such as discrimination, relativity, cause and effect relationships, mediation, motion and training in adaptive social behavior.
- &#x1F4D6; **Moderately retarded children** need training in functional skills such as self-help skills, vocational skills, and social and communication skills.
- &#x1F4D6; **Severely retarded children need** training on social and communication skills.
- &#x1F4D6; **Profoundly retarded children** do also need self-help and survival skills.

# CHAPTER SEVEN

## Physical Impairment

### 7.1. Definition

➢ Smith &Lucksson (1995) define a child with physical/motor disorder as a child who has problems with structure or functioning of the body. They also define a child with health impairment as one who has a limitation on the body's physical well-being that requires ongoing medical attention.

➢ Appropriate physical development is the key to intellectual, personal and social development. As the sensory organs take information about the world, the motor system facilitates contact with that world. Thus, a child's body is a mechanism through which a child interacts with physical and social world. It is also an important symbol of the child's personality because it is the basis for comparison of self with others. For these reasons, a child's physical growth cannot be separated from his/her overall development (Tirusew, 2000).

### 7.2. Causes of Physical/Motor Disorders

Most handicapping conditions are the result of congenital and physical malformations that are present at/after birth. Generally, Taylor, Stenberg, & Richard (1995) attribute physical/ motor disorders to the following factors.

➢ Chromosomal abnormality

➢ Teratogens /exposure of the fetus to environmental agents eg. radiation), specially during the critical periods of structural development

➢ Infectious diseases that affect the mother

➢ Alcohol intake by the mother

➢ Antibiotics

➢ Postnatal handicapping conditions

➢ Nutritional effects

➢ Child abuse and others

### 7.3. Types of Physical/Motor Disabilities

Yesseldyke & Algozzine, (1995) classify motor disabilities into two sub-categories and discuss them, along with their examples, as follows.

1. **The physical/ orthopedic impairments**

**2. The health impairments**

   1. **Physical (Orthopedic) Impairments**

   ➤ These types of impairments involve the muscular or skeletal system of an individual by limiting his/her movement or mobility.

   ➤ These are problems that result from conditions affecting the central nervous system or loss of limbs or other body parts and their related functions. Thus, the conditions affect the motor functions of a child. They adversely affect the child's psychosocial, educational, and other developmental achievements.

**A. Cerebral palsy**

Cerebral palsy is a group of **neuromuscular disorder** that results from *damage to the central nervous system* (the brain and spinal cord) before, during or after birth. It is characterized by paralysis, weakness and poor coordination. These characteristics are considered as non-progressive and non-transient (not contagious). Cerebral palsy can be treated but not cured.

There are different types of cerebral palsy. They are usually classified according to the nature of the tone of abnormality and distribution of the tone.

**B. Poliomyelitis (Polio)**

Polio is an acute disease that inflames nerve cells of the spinal cord or brain stem and leaves a residual paralysis or muscular atrophy. It is an acute communicable disease caused by the poliovirus. The disease can be very mild, showing no symptoms to severe with paralysis, muscular atrophy and even fatal paralysis. As a viral infection, it can affect the anterior horn cells of the spinal cord and brain stem and produce a flaccid motor paralysis.

**C. Spina bifida**

Spina bifida is a congenital defect in the development of spinal cord. It is an opening in spinal column caused by the failure of vertebrae to combine. It is a congenital malformation of spine characterized by lack of closure of the vertebral into a sac at the base of the spine. As a result, a portion of spinal cord and the nerves that normally control muscles in the lower part of the body fail to develop normally. This leads to paralysis of lower extremities, changes in tactile and thermal sensations and lack of bowel and bladder control.

**D. Epilepsy**

Epilepsy is a convulsive disorder caused by excess firing of electrical discharges in the brain cells. It is manifested in seizures, that is, loss of control over specific muscles in the body. Epilepsy is a chronic condition of the central nervous system characterized by periodic seizures accompanied by convulsions of the muscles and with more severe attacks and loss of consciousness.

It is more likely that that people become seizure-prone when a particular part of the brain becomes electrically unstable. A wide variety of psychological, physical and sensory factors are thought to trigger seizures in persons. For instance, fatigue, excitement, anger, surprise, hyperventilation, hormonal changes, withdrawal from alcohol or drugs or exposure to certain patterns of light, sound or touch can cause seizures.

Many misconceptions about epilepsy are circulated in society and negative public attitudes towards persons experiencing the problem have been highly harmful to the people.

Various forms of epilepsy include **grand mal epilepsy** (**the severe one**), petit mal epilepsy (**the less severe**) and **psychomotor seizure (The most complex)**.

1. **Grand mal seizure** is the most evident and **serious type** of epileptic seizure. It is characterized by:
   - ❖ loss of consciousness and postural control with muscle rigidity that progresses to jerking reactions and suspended breathing
   - ❖ loss of control of bowel and bladder and frothing of saliva
   - ❖ lasting from **1 to 10 minutes**
   - ❖ it is usually preceded by an aura, a warning sign that seizure is coming, it happens in the forms of unusual taste, smell, sound, color, dizziness, weakness, sensation of fear or headache
   - ❖ it may occur as often as several times a day or as seldom as once a year
   - ❖ it is not painful to the affected person and is not contagious

2. **Petit mal**
   - ✓ **It** is far less severe than grand mal but may occur much more frequently as often as 100 times per day in some children. It may appear to be daydreaming. There could be a short loss of consciousness, lasting from a few seconds to half a minute.

✓ The repeated occurrence of two or more of the following signs can be used to detect children with petit mal seizures.

- ➡ Head dropping
- ➡  Daydreaming, lack of attentiveness
- ➡ Slight jerky movements of arms and shoulders
- ➡ Eyes rolling upward or twitching
- ➡ Chewing and swallowing movements
- ➡ Rhythmic movement of head, and
- ➡ Purposeless body movements or sounds

3. **Psychomotor seizure**

- o It may appear as a brief period of inappropriate or purposeless activity. The child may appear to be conscious but is not actually aware of his/her unusual behavior. It usually lasts for a few minutes but in some cases it goes as long as several hours.
- o Hall day (1989) characterizes psychomotor epilepsyIt appears as a brief period of inappropriate or purpose less activity
   - ■ Temper tantrum behavior, including the use of foul language
   - ■ Lips making
   - ■ Repetition of movements
   - ■ Mumbling
   - ■ The child experiences a ringing in the ears.

**E. Leprosy**

Leprosy is a chronic disease which *damages nerve cells* around the different parts of the body, affecting both fine and gross motors. The mutilating effect of the disease generates great fear and horrors from people. Prejudices directed to sufferers of the disease as a result of false believe, and inadequate knowledge about the disease have led to persecution and segregation of the victims.

Leprosy is a communicable disease that could be transmitted from the infected person to the healthy one. But the mode of transmission is not clear. Possible roots of the germ transferring the disease are *skin, gastro-intestinal and respiratory tracts*. All sufferers of leprosy, however, could not transmit the germ because only a certain proportion of patients could transmit the

disease in these ways. It is also found out that children are more susceptible to leprosy than adults. A child born healthy can easily contract the disease from its mother.

## F. Limb Deficiencies

Limb deficiencies refer to loss of one or more limbs (hands & legs) of an individual. They may be present at birth (congenital) or occur later in life (acquired).

## II. Health Impairments

Health impairments refer to all chronic health problems which in one way or another affect the child's motor performance. And individual with health impairment is generally characterized by low vitality, motivation and low energy level. Some examples are discussed below.

## A. Heart conditions

There are two major categories of **child hood heart disease**: *diseases caused by infections and diseases resulting from congenital heart dis*ease. Both the categories are characterized by improper circulation of blood by the heart. But recently students have been returning to schools following heart transplants. When a student suffers from heart disorders or the medication is necessary to treat them, they may interfere with the student's participation in normal class activities and make the provision of special education service necessary on the short or long term support system.

## B. Asthma

Asthma is a condition which affects breathing. It may be an inherited condition, and people with close relatives who are asthmatic are likely to be asthmatic themselves. When people have asthma, airways tend to narrow caused by an increased secretion from the walls of the tubes due to inflammation or may be due to swelling of the walls themselves. When this happens the air flow is restricted and the person has difficulty in breathing. The difficulty may be accompanied by a feeling of tightness or swelling in the chest. These conditions can disturb school attendance of the children.

## C. Diabetes

**Diabetes** is a metabolic disorder in which the body is unable to properly utilize carbohydrates in the diet. It is an individual's inability to control the level of sugar in his/her blood. This happens because the pancreas fails to secrete an adequate supply of insulin, or the secreted insulin fails to function properly in the digestive process resulting in an abnormal concentration of sugar in the blood and urine. Symptoms are *excessive thirst, excessive urination, weight loss, slow healing*

*of cuts, pain in joints and drowsiness*. Regarding diabetes, there is some evidence that there is genetic disposition in some families.

## D. Hemophilia

Hemophilia is health impairment where the blood does not clot as quickly as it should do. The most serious consequences of hemophilia are usually internal rather than external bleeding. Minor cuts and scrapes do not usually pose a serious problem. Internal bleeding, however, causes swelling, pain, and permanent damage to a child's joints, tissues, and internal organs and may necessitate hospitalization for blood transfusions. It is believed that emotional stress may intensify episodes of bleeding. Other health impairments include accident based impairments which subset traumatic brain injuries, spinal cord injuries, burns and others.

## 7.4. Developmental Effects of Motor and Health Disorders

### Cognitive Characteristics

- ✓ Students with motor difficulties often have no cognitive impairments. However, the limitation of movement can adversely affect the cognitive development of the child.

### Academic Characteristics

- ✓ Students with medical and physical disability are more likely to experience academic difficulties than their peers without disabilities. The problems are not always a function of academics' skills, but of limited learning opportunities. Because of their impairment a lot of academic contents may be missed due to absence of the student from school

### Physical Characteristics

- ✓ Motor dysfunctions are the primary difficulties faced by children with physical disabilities or with health impairments. Their disorders may mean chronic illness, weakness or pain. These symptoms may be present only during acute phases.

### Social / Emotional Characteristics

- ✓ The reactions of parents and other care-givers as well as teachers and students do influence the social and emotional behavior the children exhibit in school, at home, and in the community. Like other students with disabilities, children with physical or medical problems have to deal with attitudes and expectations of others. When those expectations are low, their social and emotional development will be inhibited.

**7.5. Identification, Assessment and Intervention**

As to Heward and Orlansky (1988) teachers or parents can use the following hints to identify children and youth with motor impairments. The children and youth:

- have poor motor control or coordination
- walk with a limp with awkwardness
- show signs of pain during exercise
- have jerky or shaky motions
- have defects which interfere with normal function of the bones, muscles or joints

In addition, these symptoms, for better identification, a teacher can involve the students in one legged and backward races. Symptoms to identify children and youth with health problems include:

- ❖ easily fatigued
- ❖ excessively restless and overactive
- ❖ usually breathless after exercise
- ❖ extremely inattentive
- ❖ excessively hungry and thirsty
- ❖ faints easily

**Assessment**

Children with congenital disabilities should be assisted as early as possible and followed up regularly until school age and at critical periods after wards. Methods of assessment depend on the child's age and difficulties and on the purpose of assessment for each child has a different combination of assets and liabilities. For instance, in assessing a child with cerebral palsy, the setting of testing and the positioning of the child should be given due attention. The child and the examiner should form two-way communication for the testing to be effective. The methods of communication could be:

- o examiner to child- speech, gesture, touch, movements or any combination of these
- o child to examiner-speech, hand function, gestures, yes-no indications, eye pointing, vocalization other than speech etc (Ibid).

**Intervention**

Heward and Orlansky (1988) also contend that generally, treatment of persons with motor and health impairments could be carried out through hand-on therapy, assistive devices, medication and surgery (as a last resort). They also present the following specific educational, environmental and instrumental interventions to deal with the challenges of persons with physical/motor and health impairments.

**Educational support**

✓ Children with physical and health impairments are served in a wide variety of education settings, ranging from regular classrooms to homes and hospitals. Educational programs of children with physical and health impairments are generally similar to that of the nondisabled.

**Special devices and appliances**

✓ Many children with physical disabilities use special orthopedic devices to increase their mobility and help their bone, joints and muscles develop. Some of the important special devices include**:**

**A**. **Prostheses** are artificial replacements of missing body part (arm or leg)

**B**. **Orthoses** are devices that enhance partial functioning of a body part such as a long brace.

**C. Wheelchair locomotion** is prescribed by a physician for individuals who are unable to ambulate or for those whose ambulation is unsteady or unsafe.

**D**. **Adaptive devices** are special eating utensils such as forks and spoons with custom designed handle, or straps.

Teachers of children with physical and Health impairments should adapt equipment, schedules, or settings so that their students can participate in educational and recreational activities. According to Heward and Orlansky (1988) the following are some of the adaptation techniques which are applicable to school settings.

➢ Changing desk and table tops to appropriate heights for students who are very short or use wheelchairs.

➢ Adding adaptive devices (rubber bands, plastic wedges, plastic tubing) to writing instruments to make them easier to grip.