**Unit 1: Disability Issues**

**1.0 Objectives**

**1.1 Introduction**

**1.2 Concepts in disability**

* 1. **Classification of disability**

**1.4 Professional and personnel involved in disability management**

1.4.1 Role of Speech and Hearing Technician in the team

**1.5 Attitude of parents/caregivers and clients towards disability and rehabilitation**

1.5.1 Attitudes towards self

1.5.2 Parental attitudes

1.5.3 Public attitudes

1.5.4 Changing attitudes

**1.6 Disability issues and society**

**1.7 Let us sum up**

**1.8 Answer keys to check your progress I and II**

**1.9 Questions for self study**

**1.10 Suggested Readings**

**1.0 Objectives**

After going through this unit you will be able to write on the

* Concepts related to disability
* Classification of disability
* Professional and personnel involved in disability management
* Role of a speech and hearing technician/assistant in the rehabilitation team
* Attitude of parents/caregivers and clients towards disability and rehabilitation
* Disability issues and society
  1. **Introduction**

Disability means a partial or a total inability to perform a normal bodily function. Persons with disability are those who suffer any kind of bodily impairment that interferes with the normal functioning of one or more of their organs or senses. People may be disabled by physical, intellectual or sensory impairment which could limit one or more of the basic life activities such as seeing, hearing, talking, walking, understanding, learning, communicating etc. This could inturn lead to a handicap. Different types of communication disorders also could lead to disability and handicap.

The management of communication disorders is a challenge and a team of professionals are involved in the same. These individuals with communication disorders could have other related problems such as medical, behavioural, educational problems etc. and therefore several professionals are also involved in the rehabilitation. The speech-language pathologists and audiologists, who are considered to be professionals, are one of the major team members and they facilitate the improvement in the speech, language and overall communication skills. The speech and hearing technicians/assistants, considered to be personnel, work in conjunction with the speech-language pathologists or audiologists and have several responsibilities.

In this unit we shall understand the basic concepts in disability and its classification. In this unit we shall also understand the team members involved in the rehabilitation of persons with communication disorders and the role of speech and hearing technician in a team.

This unit also explains the meaning and importance of attitudes in the context of persons with disabilities. Attitudes about oneself as well as those that others have about us influence our behaviors. The persons with disabilities run greater risk of developing distorted self attitudes owing to their unique status and the way their environment or people around view them. It is important to have a clear understanding on the role of attitudes to optimize their interventions for persons with disabilities.

**1.2 Concepts in disability**

The terms disease, disorder, impairment, disability and handicap are commonly used by professional and personnel. The sad part is that these terms are used interchangeably, though there are subtle differences in the meaning of these words. It is important that we understand these differences. Therefore, let us look at the definitions of these terms and try to understand the differences between them.

**1.2.1 Disease:** The term disease broadly refers to any condition that impairs the normal functioning of the body. In simple terms a disease is a deviation from normal well being of an individual. A disease is a pathological/destructive processin an organ or an organism with specific known causes and characteristics. It is seen as a medical condition that is diagnosed by a physician or a medical expert, for e.g., hereditary diseases (diseases that are genetic, or passed down from one generation to the next), heart diseases, cancer, kidney disease etc.

**1.2.2 Disorder:** A disorder is a functional abnormality or disturbance. It is a disturbance or derangement that affects the function of mind or body, for e.g., medical disorders such as mental disorders, physical disorders, emotional and behavioral disorders.

**1.2.3 Impairment:** Impairment is defined as loss or abnormality of psychological, physical/anatomical structure or physiological functioning. Impairment refers to a structural or anatomical loss of a body organ in an individual, for e.g., loss of hearing, loss of vision, loss of one arm or leg.

**1.2.4 Disability:** Disability is defined as any restriction or lack of ability resulting from impairment to perform an activity in the manner or within the range considered normal for human beings. Disability is usually consequence of impairment, and refers to functional inability of a person to perform some activity or activities in the manner of a normal human being.

Therefore a person who loses his/her vision, hearing and arm or leg is likely to have disability. Such persons would experience difficulty in seeing, hearing, walking or holding things. Thus, it would interfere with their routine work or would make them dependent on others or they may require some aids and appliances to cope with the condition. Sometimes a person may have an impairment but no disability at all. Depending on the severity of the impairment the levels of disability vary.

**1.2.5 Handicap:** Handicap is the restriction imposed on the individual due to the impairment and disability. Handicap is defined as a disadvantage for a given individual resulting from impairment or disability that prevents the fulfillment of the role considered normal depending on their age, gender, and other sociocultural factors. In simple terms a handicap is the manner in which the impairment restricts the normal functioning of an individual in the society.

For example, a person with hearing loss would not be able to hear the songs, class lecture, etc. Though, he has good physical and mental abilities he has a disadvantage when compared to a normal person. Similarly a person with dwarfism faces several difficulties in his day to day life. He finds difficult to reach at the bank, post office, railway, or bus counters placed at a height. He has to jump for operating the electrical switches placed on walls. Thus, such disadvantages result in social problems which are consequences of impairment and disability.

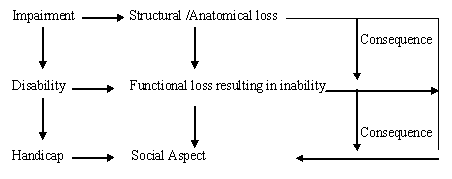
Sometimes an individual who has a disability may not have a handicap at all, except in some situations, for e.g., a farmer with hearing impairment may not find any difficulty in farming related work. Similarly a person with visual problems is able to enjoy social conversation and music like any other non-disabled persons.

There are also several examples of persons with really no physical or functional disability, yet have to face the sufferings of social handicaps in their daily lives. For instance, children of criminals, sex workers, leprosy and HIV positive patient face serious social handicaps for no fault of theirs. Thus, the concept of handicap is subjective, situational, and subject to social perception and acceptance or rejection from the society.

To sum up, there are differences in the terms such as disease, disorder, impairment, disability and handicap. Disease is a definite pathological process having a characteristic set of signs and symptoms. Disorder is a disturbance or derangement that affects the function of mind or body. Impairment refers to a problem with a structure or organ of the body; disability is a functional limitation with regard to a particular activity; and handicap refers to a disadvantage in fulfilling a role in life relative to a peer group. The table and the figure below provide the conceptual difference between the terms impairment, disability and handicap.

Table 1.1: Conceptual difference between the terms related to disability.

|  |  |  |
| --- | --- | --- |
| **Condition** | **Concerned with** | **Represents** |
| Disease | Pathological process having a characteristic set of signs and symptoms | Disturbance at the body level |
| Disorder | Disturbance or derangement that affects the function of mind or body | Disturbance at the mind or body level |
| Impairments | Abnormalities of body structure, organs, appearance and system functioning | Disturbance at the body level |
| Disabilities | Limitations/loss of functional performance and activities | Disturbance at the level of the individual |
| Handicaps | Disadvantages resulting from impairment and disabilities | Disturbance at the level of the society (situation specific limitations) |



**Figure 1.1: Diagrammatic representation of the relationship between the** terms ‘impairment’, ‘disability’ and ‘handicap’.

**The below mentioned example illustrates the differences among the terms "impairment," "disability," and "handicap."**

Ajay is a 6 year old child with cerebral palsy (CP).  His legs are stiff, tight, and hence he has difficulty in walking.

Impairment:  The inability to move the legs easily at the joints.

Disability:   Ajay's inability to walk.

Handicap:   Ajay's lack of participation in games in his school.

The international classification of Impairments, Disabilities and Handicaps (ICIDH-2, 1998) proposes a common language of functioning and disability. The new terms proposed are ‘Activity limitation’ for ‘disability’ and ‘Participation Restriction’ for ‘handicap’. The ICF-CY framework (WHO, 2001) defines components of health and health-related components of well-being. The domains of the ICF-CY are defined by two umbrella terms. “Functioning” is an umbrella term encompassing all body functions, activities and participation. It denotes the positive or neutral aspects of the interaction between a person’s health condition(s) and that individual’s contextual factors. “Disability” is an umbrella term encompassing impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between a person’s health condition(s) and that individual’s contextual factors. The contextual factors include:

* **Environmental Factors**—Factors that are not within the person's control, such as family, work, government agencies, laws, and cultural beliefs.
* **Personal Factors—**Personal factors includerace, gender, age, educational level, coping styles, etc.

Table 1.2: Description of the two domains viz. ‘functioning and disability’.

|  |  |
| --- | --- |
| **Functioning (Positive aspects)** | **Disability (Negative aspects)** |
| Normal body functions and structures of people | Impairments (Problems in body function and structure such as significant deviation or loss). |
| Activities of people (functioning at the level of the individual) | Activity limitations (Difficulties an individual may have in executing activities) |
| Participation or involvement of people in all areas of life | Participation restrictions (problems an individual may experience in involvement in life situations) |

Although these factors are independent of the health condition, they may have an influence on how a person functions. The table and figure given below describes the two domains ‘functioning and disability’.

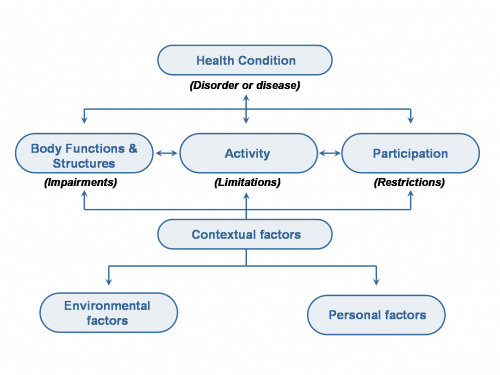


Figure 1.2: Components of health and disability along with the contextual factors.

(Source: http://www.rehab-scales.org/international-classification-of-functioning-disability-and-health.html)

As illustrated in Figure 1.2, disability is multidimensional and interactive. All components of disability are important and any one may interact with another. Environmental factors must be taken into consideration as they affect everything and may need to be changed.

**1.3 Classification of disability**

Disabilities can be divided into two categories based on visibility as follows:

1. Visible disability: These disabilities can be seen and noticed easily, e.g., blindness, paralysis (loco-motor)

(2) Invisible disability: Persons with these types of disabilities will be noticed only when someone communicates with them or they do not respond to the sound stimuli. They will not have any obvious visible signs and will look like any other normal person/child, e.g., speech and hearing disability, learning disability.

Disabilities can be classified into six categories based on the impairment as follows:

1. Hearing disability
2. Visual disability
3. Orthopaedic/locomotor disability
4. Mental disability
5. Learning disability
6. Multiple disability

**1.3.1 Hearing disability:** This is the category that includes children/people who have complete or partial hearing impairment. In these children/persons, the sense of hearing is not functional; i.e., they cannot use their hearing ability for everyday purpose of life. People who have hearing impairment use hearing aids to hear, which help them in making use of their residual hearing.

**1.3.2 Visual disability:** This disability occurs when a person has partial or total absence of sight i.e., blindness. They have impairment of visual function and unable to see object clearly just like a normal person. The sense of vision is not functional for everyday purpose of life, i.e., they may have difficulty in carrying out normal daily activities such as driving, reading, socializing, and walking. Their eyesight cannot be corrected to a “normal level”.

**1.3.3 Orthopedic/Loco-motor/physical disability**: This disability affects the limbs which can be either upper limb (hand/s) or lower limb (leg/s). They have difficulty in carrying out physical actions such as moving oneself or other objects. The disability in mobility can be either in-born or acquired. A disease could also cause this.

**1.3.4 Mental disability**: This disability is known with several names such as mental retardation, mentally challenged, mental sub-normality, intellectual disability etc. These persons have low level of intelligence and capacity for social adjustment and living independently. These individuals have difficulty in thinking rationally, acting purposefully and adapting effectively in the surrounding environment. The intelligence level of a person is measured using standard tests and is known as intelligence tests. Intelligence is calculated and expressed in the form of intelligence quotient (IQ).

**1.3.5 Learning disability**: Children with learning handicap show a discrepancy between tested intellectual abilities and the expected academic achievements. Learning handicap may occur in isolation in one area of school performance such as reading, writing or arithmetic. It can also occur in a cluster of mixed variety which is reflected as scholastic backwardness. A child with hearing loss, visual problem and mental retardation or any other handicap cannot be included in the category of learning disability.

**1.3.6 Multiple disability/handicap:** Multiple disabilities refer to conditions where the child has two or more disabilities at the same time, for e.g., deaf blindness, mental retardation with hearing and visual disability etc.

* 1. **Professionals and personnel involved in disability management**

There are different types of professionals qualified for specific type of disabilities. As per criteria of Rehabilitation Council of India (RCI), professionals are the ones who have at least an undergraduate degree in their respective area of specialization from a recognized university. The duration of the professional course is 4 years or more. A brief description of the role of a few professionals involved in the rehabilitation of persons with communication disorders is given below.

**1.4.1 Speech-Language Pathologist and Audiologist:** These are qualified health care professionals who assess, treat, counsel and provide adequate guidance to either the person or caregivers of speech, language and hearing disorders. They undergo a maximum of four years of academic and clinical course recognized by RCI and the university.

* 1. Audiologist is a qualified person to offer services for the care of hearing and hearing disorders.
  2. Speech-Language Pathologist is a qualified person to offer care of speech language and its disorders.

**1.4.2 Clinical Psychologist** is a qualified person to offer services for psychological problems. As majority of persons with communication disorders (that include, hearing, speech and language disorders) generally manifest behavioural and psychological problems, it is essential to have a clinical psychologist in the team.

**1.4.3 Special Educator** is a qualified person to offer special educational services to children with communication disorders.

**1.4.4 Other medical professionals** such as ENT specialists, Paediatricians, Neurologists, Plastic surgeons, Physicians and allied professionals such as Physiotherapists and Occupational therapists also form a part of the team who work together for the betterment of persons with speech, language and hearing disability.

**Examples of Professionals**

* Speech Language Pathologist & Audiologist : B.Sc. Speech & Hearing or BASLP, MSc (sp. & Hg.), MSc SLP/MSc Aud/PhD
* Doctor: M.B.B.S
* Engineer: B.E
* Dental surgeon: B.D.S
* Clinical Psychologist: MA or M.Sc. Clinical Psychology
* Physiotherapist: B.P.T
* Occupational Therapist : B.O.T
  + 1. **Speech and Hearing Technician (SHT)/Speech and Hearing Assistant (SHA)**

Speech and Hearing Technician/Assistant (SHT/A) is a trained person (with a Diploma or a Certificate course) in the community who is well informed about the nature and cause of hearing and speech-language disorders. As per the criteria of RCI, they are considered as ‘personnel’ as against ‘professionals’. SHT/A works in conjunction with qualified Audiologists and Speech-Language Pathologists at the community level. In addition, they are responsible to plan and organize activities for the betterment of persons with disability in the community.

SHT/A is a qualified personnel, holding a Diploma of 10 months, after completing PUC or plus 2, who will be working either independently at the community level or will be assisting a qualified Speech-language pathologist and Audiologist for providing speech, language, and hearing services in the community.

**Role and scope of practice of SHT/A:** The role of a SHT/A is multifold. SHT/A is generally closely associated with the members of the community and hence understands the needs and interests of each and every individual. Though SHT has several roles, he should carry out most of the work under the supervision of Speech-language pathologist and Audiologist. SHT/A is expected to carry out the following duties.

**Administrative work**

* + Help in the setting-up of a speech and hearing centre
  + Help in organizing the activities of the centre
  + Help in organizing camps
  + Help in the maintenance of the equipment of the centre. Carry out basic daily checks to see if the instruments are functioning.
  + Get instruments/devices that are not functioning checked/serviced/ repaired by qualified personnel or professionals
  + Maintenance of records of matters such as clients seen/camp details/equipment/furniture/other fixtures

**Clinical work – Public education and screening**

* Assist in educating the public on the necessity and ways to prevent the occurrence of the disability. For example, when there is history of disability in the family, SHT/A may advice the family members to avoid consanguineous marriages as certain disabilities run in families
* Assist in carrying out surveys to know the incidence and prevalence of persons with speech, language, and hearing disability
* Screen for the presence or absence of communication problems using the checklists/tests that are provided
* Assist the Audiologist and Speech-language pathologist in identification of persons who are likely to develop (who are ‘at-risk’ for disability) disability and those who are disabled. For example, if there are birth complications such as delayed labour or absence of birth cry in the newborn, SHT/A may advice the family to be aware of certain characteristics in the child that would help in identification of risk for disability or identification of disability itself (such as mental retardation or cerebral palsy)

**Clinical work – Diagnostic and referral**

* Assist the Speech-language pathologist and Audiologist with speech, language and hearing screening (without interpretation)
* Assist in taking the detailed history form the clients with speech, language and hearing disorders
* Helps in carrying out some basic diagnostic tests/checklists on clients with communication problems
* Assist with informal and formal documentation as directed by Speech-language pathologist and Audiologist
* Make referrals to appropriate professionals such as ENT doctor, Speech and Hearing Professional, Psychologist, and Physio-therapist. This should be done only if the centre does not have these professionals
* Coordinate with special schools, medical centers, rehabilitation centers and non-governmental centers for the cause of children with special needs. For example, a child with hearing loss due to ear discharge may need the care and treatment of ENT specialist along with services of Audiologist, Speech-language pathologist and Special educator. SHT should understand the special needs of a given child and coordinate the required services
* Collect data for monitoring quality improvement

**Clinical work – Management**

* Assist the Audiologist and Speech-language pathologist in implementing the procedures for treatment and rehabilitation of persons with disability. For example, if children with risk for mental retardation are identified at an early stage, then SHT may advice on the importance of activities for enhancing basic skills so that the child may achieve near normal functioning as early as possible
* Assist Speech-language pathologist and Audiologist in preparing materials for speech-language therapy and for awareness programs
* Schedule the appointments of persons with speech, language and hearing disorders
  + Counsel the family members/client regarding consistent use of personal devices such as hearing aids
  + Provide guidance to parents/caregivers of children with communication problems so that home training can be imparted
  + Carry out basic troubleshooting of devices being used by the clients, for e.g., troubleshooting hearing aids
  + Refer clients for regular follow-up
  + Refer individuals for vocational training programmes

**Examples of personnel**

Speech & Hearing Technician/Assistant: Diploma in Hearing, Language, and Speech (DHLS)

Ear mould Technician: Diploma in Hearing Aid & Ear mould Technology (DHA & ET)

Teacher for Young Hearing Impaired Children: Diploma in Early Childhood Special Education – HI (DECSE-HI)

**Check your progress I**

Abnormalities of body structure or function is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. The two categories of disability based on visibility are \_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_ disability.

3. Persons with low level of intelligence have a \_\_\_\_\_\_\_\_\_\_\_\_\_disability.

4. Speech-language pathologists and Audiologists are considered to be as rehabilitation \_\_\_\_\_\_\_\_\_\_\_\_.

5. A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a professional who deals with behavioural and psychological problems of persons with communication disorders.

**1.5 Attitude of parents/caregivers and clients towards disability and rehabilitation**

Attitudes refer to thoughts, feelings and actions formed about some object, person, or event in a social context towards self and others. They develop owing to influence of several significant others in the environment, such as, parents, teachers, friends and peers. Atittudes can be positive or negative. Negative attitudes are reflected as prejudice - an unjustified attitude. For example, one can have an attitude that all mentally ill persons are violent and wicked; or all criminals are evil persons. Faulty attitudes or prejudices can be changed. A positive attitude helps one to cope more easily with the daily affairs of life. It brings optimism into life, and makes it easier to avoid worries and negative thinking. Let us try and understand the concept of attitudes and its development.

Allport (1935) defined attitude as ‘mental and neural state of readiness organized through experience, exerting dynamic influence on the individual responses to all objects and situations with which it is related’. “Attitudes are a combination of beliefs and feelings that predispose a person to behave in a certain way” (Noe, 2002, p 108 cited by Brostrand, 2006). Attitudes are formed on the basis of direct experiences, rewards and/or aversive or negative experiences with the target objects or persons.

In the context of persons with disabilities, the study of attitudes assumes importance in three ways: attitudes of the person with handicap towards self (attitudes towards self), attitudes of the parents/caregivers towards persons with disability (parental attitudes) and the attitudes of others towards persons with disability (public attitudes).

**1.5.1 Attitudes towards self**

The concept of self is central to psychology of attitudes. In general, self refers to the conscious, reflective personality of an individual. At birth or immediately thereafter, infants have no distinction between self and their environment. No one is born with self concept. They experience their world as disconnected, disjointed, disorderly and disorganized. Over time and with daily experiences, order and organization set into their view about themselves and their world around. It is shaped and reshaped with perceived experiences with others. This is evolution of self. Self concept or self identity is the mental and conceptual awareness about ourselves. It is what one thinks about oneself. It includes physical, psychological and social qualities about oneself. On the basis of self concept, one develops a self perception, self image and self esteem - in short, attitudes towards oneself.

The success or failure experiences of people are related to how they view themselves and their relationships with others. The self concept or attitudes towards self of every person is learned by experience. The experiences of persons with disabilities in our society are by and large negative. Greater the number of their negative experiences or experiences of failure, greater is the possibility that their self evaluations are severely damaged.

Many studies report that the self perception of persons with disabilities is not positive. These individuals view themselves as incompetent, inferior, incapable and inept compared to non-disabled peers. They have lower self esteem. Persons with high self esteem find it easy to handle conflicts, make friends easily, laugh and smile more often. They have optimistic view of the world or life. On the other hand, persons with low self esteem find it tough to face problems. They are self critical, passive, withdrawn and depressed. They hesitate to try new things, speak negatively about themselves, get frustrated easily, view temporary problems as permanent and are pessimistic about themselves or their world. Self esteem grows out of one’s experiences. It is influenced by how others respond to our behaviors. Supportive and encouraging feedback from others through praise and approval raises one’s self esteem. Success and reward experiences during childhood form the basis for development of self esteem. Alternatively, failures and punishments act as deterrents. Positive home/school experiences, academic success, achievements in sports or accomplishments in arts promote self esteem. In case of persons with disabilities, experiences of failure, more than their handicap, fuels their lower self esteem.

Low self-esteem leads to problems such as poor school achievement, behavioral problems and antisocial behaviors. Some common signs of low self-esteem are:

* feeling that they must always please other people
* general feelings of not liking themselves
* feelings of unhappiness most of the time
* feeling that their problems are not normal
* feeling that they are to blame for all their problems
* needing constant validation or approval
* not making friends easily or having no friends
* needing to prove that they are better than others

Praising even their smallest accomplishments and not criticizing/comparing them with others, respecting their individuality, having realistic expectations etc. goes a long way in fostering his/her self esteem.

**1.5.2 Parental attitudes**

Parental attitudes towards their child with disability can be varied. Some of the common parental attitudes are the following:

**Acceptance:** Some parents/caregivers are able to accept the impairment in their children and shower love and concern. They try to help and support them in overcoming obstacles that come their way and help them to function as independent members of the society. Thus acceptance is a positive attitude and helps the child to achieve his potential.

**Rejection:** Some parents/caregivers tend to reject their children with disability. They consider them as a burden and a stigma affecting their social status. Some of them send their children with disability to an institution (residential set ups) and wash their hands off. Sometime parents also feel embarrassed to take their children out for a social function or to public places and feel uncomfortable to do so. This is also a mild form of rejection.

**Indifference:** In some cases, parents/caregivers accept their children with disability and try to find out ways to help. They show their love and concern for the child, but they find it difficult to treat them on par with the other children in the family. This hampers the all round development of these children with disability.

**Overprotection:** Some parents/caregivers tend to overprotect their children with disability. They feel that they need to be sheltered and protected because of the disability. Overprotection denies the child the opportunity to achieve his/her potential in various areas of development.

**1.5.3 Public attitudes**

Historically, public attitudes towards persons with disabilities have been generally negative. Earlier and even now some people view persons with disabilities as ‘curse of god’ for all the sins committed by them in a presumed earlier birth.

Table 1.3: Faulty attitudes and common misconceptions about PWD

|  |  |
| --- | --- |
| **Sl No.** | **Misconceptions** |
| 1 | Disability is the curse of gods |
| 2 | Disability is caused due to sins of the person or his family members in their previous birth |
| 3 | Mental retardation is same as mental illness |
| 4 | Marriage can cure mental retardation |
| 5 | Developmental delays in children get improved on their own as they grow up |
| 6 | Some disabilities like mental retardation or cerebral palsy can be infectious |
| 7 | If pregnant women work or is exposed to persons with disabilities, she is likely to give birth to defective children |
| 8 | Children or persons with disabilities cannot be taught anything |
| 9 | Persons with disabilities must be separated or segregated from regular society |
| 10 | Disability is the result of past karma or deeds in this or previous life |
| 11 | It is waste of time to teach persons with disabilities. The same time or even in less time, it is better or easier to do all things they need to learn |
| 12 | All children with disabilities have behavior problems and are difficult to manage |

They were feared, misunderstood, joked, ridiculed, disliked, or pitied, sympathized, or rejected. Separate institutions or asylums were built for these people far outside the city. A policy of segregating these people was practiced. Sometimes they were even used as exhibits for the rich people to view them like animals in a zoo. Some of the faulty attitudes and common misconceptions in public about persons with disability are commonly prevalent even today as shown in table above.

**Pity:** This is a widely prevalent attitude. This is felt when the seriousness of the problem in question is recognised, but there is no understanding of the condition. Pity towards the person with disability implies that the one who feels pity considers the subject of pity as less fortunate or less able than oneself. Although pity is somewhat a positive attitude, it is not the right attitude because it makes its object feel inferior and does not result in any constructive effort in ameliorating the condition.

**Indifference:** This is a widely prevalent attitude. People are in the habit of being indifferent about what happened to fellow human beings unless it happens to us or to our own people.

**Fear:** People try to avoid the persons with disability because of the fear that by associating with them, they themselves may acquire the defect/impairment. The fear is because of the ignorance about the causes of the impairment.

**Sympathy:** This means ‘feeling with’. The difference between pity and sympathy is that, in pity the object of the attitude is considered to be inferior by the subject; in sympathy, the object is considered to be a fellow human being who is equal in status with the subject. Pity does not result in any constructive help. On the other hand, sympathy is actuated by a desire to help constructively and without any obligation so that the person with disability may be able to attain independence. Sympathy, however, is a rare attitude and is based on a complete understanding and knowledge of the affairs of the individual concerned.

**1.5.4 Changing attitudes**

The attitudes of public has been changing gradually towards more humane considerations for persons with disabilities. It was realized that segregation and separation of these persons worsened their condition. There were reforms and movements to set free these persons from their imprisonment and into the open society. Training, education and rehabilitation programs were started by involving the family and community for improvement of these individuals. Day care centers, half way homes, respite homes, community based rehabilitation centers, night hospitals, self help groups, home based training programs, home schools, sheltered workshops and such other community friendly agencies were opened for the benefit of rehabilitation of the persons with disabilities and impairments. Several social benefits and concessions were given to these persons.

There has been a change in the societal attitudes towards the persons with disability because of greater awareness regarding their needs, their capabilities and due to increased literacy. The positive attitude of the parents will have an influence on the attitudes of the society. If there is parental willingness to provide their children with requisites including emotional support and opportunities to realize their potential, the society at large would follow suit.

It is correctly argued by some experts that most of the problems faced by persons with disabilities are not really owing to their disabilities. Rather, they are the making of the faulty attitudes of non-disabled persons in their society. A simple example will clarify this point. This whole world is made for an individual with average height. The furniture, buildings, switchboards, ready made garments, or in fact, almost everything is designed and put in place for an assumed person with average height. In these circumstances, a dwarf is a misfit. He has to jump to sit on a chair. He has to leap to reach the bank counter or even switch on a fan or light. This will result in comic or ridicule. If only, the world had been considerate to have short height chair this tragedy could have been averted. The same is the plight of persons with visual or hearing handicap. They have to learn the expressive language of the non disabled. It is questioned why the non-disabled persons cannot be made to adopt the language or expressions of persons with disability. Probably, they could be taught sign language or Braille. Then, there would be very few difficulties and challenges for the persons with disability. This is the essence of the argument regarding changing public attitudes in recent times.

The emphasis of contemporary rehabilitation programs is to change attitudinal barriers in the minds of non-disabled as well as decrease/minimize physical barriers for the convenience of persons with disabilities. It is argued and realized that buildings have to be designed or constructed for the convenience of physically challenged. A ramp is more convenient than a flight of steps. Low height toilet seats aid persons afflicted with cerebral palsy. An interactive voice announcement will facilitate the person with visual impairment. A signage will help the person with hearing loss.

Attitude change programs are aimed at modifying negative labels and harsh or inconsiderate name calling of persons with disabilities. There is a social movement towards removing hurting names like ‘deaf, blind, lame, crippled, idiot, imbecile or moron’. These nick names are best avoided. Rather, there is stress on the positive side-calling the person with disability as being ‘differently abled’. There is emphasis on recognizing the ability hidden within a disability! In addition, there is also a social movement on not referring to persons with any disorder as ‘hearing impaired persons’, rather to refer them as ‘persons with hearing impairment’. The same applies to individuals with other disabilities too. This is because they are primarily human beings first and their disability is only secondary.

The society is committed to create better opportunities for persons with disabilities as well as to eliminate barriers in realization of whatever capacities hidden inside each one of them. These days there is discussion on creating ‘barrier free environment’. There are movements to promote better quality in the lives of persons with disabilities. Such changes are likely to result in greater empowerment of these persons. Eventually, they are likely to result in changed self attitudes of the affected persons themselves. There are various strategies for changing negative attitudes of general public towards persons with disabilities which are listed below:

* 1. Mass contact programs like Disability Detection Camps
  2. Use of Media like newspapers, television, internet and others
  3. Campaigns for a cause by organizing Special Olympics or Runs
  4. Organizing self help groups of the affected
  5. Celebrating a day or year for disabled
  6. Honoring achievements of persons with disabilities
  7. Lobbying and formation of pressure groups
  8. Rewarding and encouraging Inclusion, Integration and Mainstreaming activities of the non disabled for the benefit of persons with disabilities. The government offers incentives to schools adopting or implementing the policy of inclusion in their respective institutions.
  9. Introduction of Legislation and new laws in favor of the persons with disabilities. For example, the Persons with Disabilities (Equal) Opportunities, Protection of Rights and Equal Participation Act (1995) carry several tenets that protect these persons from social discrimination.
  10. The Government of India has a policy for reservation of jobs in government sector for persons with disabilities. This has proved to be useful in mainstreaming such affected persons by providing them opportunities to work with the non-disabled.

However, more than any legal sanction and stricture, what must be eventually aimed in civil society is for a genuine change of attitude in the public for or towards persons with disabilities.

**1.6 Disability issues and society**

As mentioned earlier, just a few centuries ago, disability was something to be concealed or hidden. It was considered as a shame or punishment for sins in an earlier life. The society tried to eliminate the disabled, for e.g., the primitive tribes discarded their fellow beings because of physical unfitness to fight their foes and wild animals. Many other communities killed their disabled children. Some of the communities also abandoned those with disability. This was the phase of social destruction and elimination. However, gradually over a period of time these outrageous practices were abandoned, although persons with disability were continued to be mocked, treated harshly and driven to begging and crime. Some attempts were made in the ancient and medieval times to cure various disabilities. This was the phase of care and protection. However, gradually people realized that only care and protection were not sufficient for these children, they required training and education too. This led to the initiation of phase of training and education of the persons with disability. With the advent of the 18th century, the ideas of liberty, equality and fraternity gained momentum and the rights of the individuals superseded the collective interest of the society. They began institutions for the disabled where they were provided with treatment. Gradually with the advent of the medical science, people realized that prevention and early training would relieve the society of the burden of supporting the disabled throughout his/her life. The final phase was that of the social absorption where in the vocational (job-related) rehabilitation was initiated. Towards the end of the 19th century, vocational problems of the persons with disability started to attract their attention and some efforts were taken to solve them. To sum the attitude of the society has changed over time. The fear and hatred has changed to general sympathy and tolerance to the persons with disability.

This was the scenario worldwide. However in India, the scenario was a little different. Care and consideration for the sick, elderly and disabled has always been a part of the Indian culture and tradition. Every possible protection was given to the disabled by the society. The core of this value system was the joint family system. Basic education for the disabled in India commenced much before it was even thought of in Europe. The formal education of children with disabilities began in India way back in 1869. By 1991 there were about 1200 special schools in India for children with different disabilities. In 1974, the integration of children with disabilities was also promoted. The successive governments formulated policies and programmes through budget provisions to address the needs of the persons with disability. There was a global movement for giving equal rights to the persons with disability in every field of human activity. The observation of the ‘International Year of the Disabled, 1981’ set the stage for radical developments. For the first time, National Sample Survey Organization (NSSO) took up the responsibility of identifying the disabled persons in the country. As per the NSSO survey done in 2002, there were about 18 million disabled persons (1.98% of the population) with certain disabilities. The census 2001 also had the provision of identifying the persons with disability according to their figures, there were about 21 million persons in the country, which represent 2.1% of the population.

The establishment of specialized institutions and funding of Non Government Organizations (NGOs) on a large scale for taking up various measures for the benefit of persons with disabilities, various enactments, launching of schemes for the persons with disability etc. took a quantum leap after the early 1980’s. Legislation for persons with disabilities also followed such as the Rehabilitation Council of India Act, 1992, the Persons With Disabilities (Equal Opportunities, Protection of Rights and Full Participation), 1995 and the National Trust for Welfare of Persons with Autism, Cerebral palsy, Mental Retardation and Multiple Disabilities Act, 1999. These acts were also later revised in 2011. The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) has also been ratified by the Government of India.

Further, necessary steps for the education of persons with disability, vocational training, prevention, of disability, training of disability professionals to take care of the disabled persons and planning for other activities for their eventual empowerment has been done in the country by the government, voluntary organizations and other institutions.

In an effort towards improving the rehabilitation of persons with disability, District Rehabilitation Centers (DRCs) were set up in 11 districts. These were specifically aimed towards generating awareness amongst the public regarding disabilities, rehabilitation, training/guiding grass root level functionaries and providing comprehensive services to persons with disabilities. They also undertake facilitation of disability certificates, bus passes and other concessions/facilities for persons with disabilities. They also provide orientation training to the community and vocational training and employment to persons with disability to make them economically independent.

In addition, vocational rehabilitation centres (VRC) have also been set up in the country which evaluates the residual capacities of persons with disabilities and provide them with adequate vocational training. Rehabilitation services have also been extended to persons with disabilities living in rural areas through mobile camps and Rural Rehabilitation Extension Centers (RREC) under VRCs.

Community Based Rehabilitation (CBR) has also been the major thrust since 1980’s. The Government has set up District Disability Rehabilitation Centers (DDRC’s) to provide rehabilitation services to persons with disabilities in unreached and unserved districts of the country in a phased manner. These centers are to provide training for acquisition of skills through vocational training, job placement in local industries, in addition to other rehabilitation-related services at district headquarters as well as through camp approach.

There is now a growing realization that persons with disabilities are citizens of the nation with equal rights and responsibilities like anyone else and that they are entitled to justice, equality, respect, dignity and equal opportunity like all other citizens. Today in India, the disability and the related issues gets the needed focus. It has found a place within the vision, policies and plans of the Government and the media is increasingly focussing on disability issues in the everyday environment. Persons with disability are finding places of importance in the country and definitely this is a very positive sign and needs to be taken forward. Thus, India has taken giant steps forward in its quest to secure social justice and equal opportunities for the persons with disabilities in the country.

It is the responsibility of the society, however, to provide an ideal platform for these individuals with different disabilities. A society cannot call itself modern and equitable, unless it makes sincere efforts to achieve equality of opportunities for all its less privileged citizens including persons with disabilities.

**Check your progress II**

1.The mental and conceptual awareness about oneself is referred to as \_\_\_\_\_\_\_\_\_\_

2. Persons with \_\_\_\_\_\_\_ self esteem are withdrawn and depressed.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_organization took up the responsibility of identifying persons with disability in India for the first time.

4.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_centers were initiated in India to provide vocational training to persons with disabilities.

5. Persons with disabilities (PWD) act was introduced in the year \_\_\_\_\_\_\_\_\_.

**1.7 Let us sum up**

In this unit we learnt about the key differences between terms such as impairment, disability and handicap, the different types of disabilities and their classification, the professionals responsible in the management of people with disabilities, and the role of a Speech and Hearing Technician/Assistant (SHT/A) in the team. We also learnt about the common attitudes of the parents and society towards the persons with disability. In the last section we learnt about the perspectives of the Indian society towards disability and the initiatives taken by the Indian government in dealing with person with disabilities.

**1.8 Answer keys to check your progress**

**Answer keys to check your progress I**

1. Impairment

2. Visible and invisible

3. Intellectual

4. Professionals

5.Clinical psychologist

**Answer keys to check your progress II**

1. Self concept

2. Low

3. National Sample Survey

4. Vocational rehabilitation

5. 1995

**1.9 Questions for self study**

1. Define the following terms:
2. Impairment (b) disability (c) Handicap
3. Define the following conditions with suitable examples:

(a) Hearing disability (b) Visual disability (c) Orthopedic disability (d) Mental disability (e) Learning disability (f) Multiple disability

3. List types of professionals generally involved in the care of persons with special needs.

4. List types of personnel involved in the care of persons with special needs.

5. What is the role of SHT/A?

6. Define attitude. Differentiate between self and public attitude.

7. Highlight the self perception of persons with disabilities.

8. Describe the public attitudes towards disability.

9. Describe the gradual change in the perspective of the society towards disability.

10.What steps have been taken by the Indian government in dealing with disability?

**1.10 Suggested readings**

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**Unit 2: Management of Speech Disorders**

**2.1 Objectives**

**2.2. Introduction**

**2.3 General speech therapy approaches – Rationale, setting goals/planning (short term, long term) steps, MIDVAS**

**2.4 Management of speech disorders**

2.4.1 Management of articulation disorders

2.4.2 Management of voice disorders

2.4.3 Management of fluency disorders

**2.5 Let us sum up**

**2.6 Answer keys to check your progress**

* 1. **Questions for self study**

**2.8 Suggested readings**

**2.1 Objectives**

After going through this unit you will be able to write on the

* General speech therapy approaches
* Therapy for articulation disorders
* Therapy for voice disorders
* Therapy for fluency disorders

**2.2 Introduction**

It is very essential to facilitate communication in persons with communication disorders because communication is the essence of life and since man is a social being, specifically the verbal communication has its own significance. Verbal communication involves expressing one’s thoughts, feelings and ideas through speech. However, in some individuals this ability (speech) is affected. This unit revolves around the management of individuals with different speech disorders.

The treatment procedures for communication disorders are termed speech-language therapy. This is carried out by a speech-language pathologist/therapist. There are some basic principles and concepts in therapy. As a speech and hearing technician/assistant (SHT/A) you too should be aware of the basics of speech therapy. In this unit we shall first understand the general therapy procedures for speech disorders. In addition, there are specific therapy procedures for different speech disorders. We shall also learn about the therapy procedures/techniques involved in the management of speech disorders such as articulation, voice and fluency disorders.

**2.3 General speech therapy approaches – Rationale, setting goals/planning (short term, long term) steps, MIDVAS**

Speech-language therapy is the remedy for communication disorders. The main objective of speech therapy is to bring about an overall improvement in the communication skills including the speech and language skills. The client should show an improvement not just in the clinical setting or in the therapy session, the improvement should also generalize to his/her real world such as home, school, work etc. The aim is to bring about an optimum progress in the minimum amount of time. Of course, the amount of progress is influenced by several factors such as the nature and severity of the disorder, the age of the client (person with communication disorder), the extent of training provided at home by the family as well as personal and cultural characteristics of both the client as well as the clinician. In this section you will learn about the approaches and procedures used in the management of speech disorders.

There are certain set of procedures to be followed while working on improving communication skills. Common procedures are modified to suit the individual person, his or her specific problems, and the specific target behaviours. Let us understand some common procedures that can be applied to persons with communication disorders during their management.

* + 1. **Assess the person**
* Determine the diagnosis
* Describe the strengths and limitations of the person
* Describe the current level of communicative performance
  + 1. **Evaluate the person’s family constellation**
* Describe the family support and resources
* Describe social, education or occupational demands on the person
  + 1. **Establish the pre-therapy/baseline measures of target behaviors**
* Select stimuli to evoke the target behaviors
* Repeat the measures
* You can also model the target behavior
* Record speech samples
* Obtain home sample if possible

Pretherapy measures are essential to determine the progress made by the client and the success of the treatment program.

* + 1. **Write a treatment program or a lesson plan**
* Specify the target behaviors or goals
* Select both short and long term targets (see below for explanation)
* Select behaviors that will have the greatest effects on person’s communication in social situations
* Specify the activities used to meet the goals listed
* Specify the materials that will be used to implement the activities listed
* Specify the reinforcement or feedback procedures (see below for explanation)
* Set a criterion to move from one level of treatment to another
* Specify the maintenance and follow-up procedures
* Define the criteria for discharge

**2.3.5 Goals- long and short term**

The first and foremost step in the preparation of lesson plan is the identification of the communication behaviours to be acquired over the course of the treatment program. These become the targets or goals to be addressed during therapy. A goal is a statement (behavioural objective) that specifies the target behavior in an observable and measurable way. Goal consists of the skill to be learned. For e.g., if a child cannot produce /p/, the goal is to teach him to produce /p/.

The goals can be of two types: long term goals and short term goals. The long term goals are the final objectives that need to be learnt prior to the discharge of the client. They are carried out over a long duration of time. The short term goals are the break up of long term goals. These are concerned with small units of behaviour which are attainable in a short time. These are targets that can be achieved over a few therapy sessions. Short term goals are to be accomplished before a long term goal is achieved.

An e.g., of a long term goal

To produce /p/ in all positions of words in spontaneous sentences

The short term goals corresponding to this long term goal could be the following:

* To auditorily discriminate /p/ with 90% accuracy over two consecutive sessions
* To imitate the production of /p/ in isolation with 90% accuracy over two consecutive sessions
* To produce /p/ in the initial position at single word level with 90% accuracy over two consecutive sessions
* To produce/p/ in the medial and final positions at single word level with 90% accuracy over two consecutive sessions
* To produce/p/ at phrase level with 90% accuracy over four consecutive sessions.
* To produce/p/ at sentence level with 90% accuracy over four consecutive sessions.
* To produce/p/ in all positions of words in spontaneous sentences with 90% accuracy over four consecutive sessions.

**Reinforcement:** Reinforcement is provided to increase the frequency of a particular behavior, For e.g., if you are teaching the production of /p/, when you say /p/, if the child also makes an attempt to imitate, you can say good or well done or even clap your hands to appreciate the child’s efforts. Sometimes you can also encourage the child by giving a small piece of chocolate or a star to motivate the child. If the child produces a wrong response, you can say ‘good attempt but try again’. Avoid saying ‘no’, ‘you are wrong’ or beating as these may put off the child and the child may feel hurt.

**Feedback:** This involves providing information to the client regarding the quality of his/her performance and progress in therapy. It also involves giving a feedback of the quantity of correct responses provided by the child. For e.g., if the client imitates /p/ twice out of 5 times presented by you, the score will be 2/5 which should be informed to the client. Use this kind of feedback for older clients with good understanding abilities. Very young children may not be able to understand this information.

**2.3.6 Lesson plan**

The long term and short term goals along with the activities, materials and reinforcement/feedback procedures make up the lesson plan. Here is a sample lesson plan for a child with misarticulation of sound /p/.

Table 2.1: A sample lesson plan for a child with misarticulation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Baseline | Goals | Activities | Materials required | Reinforcement or feedback procedures |
| The client is unable to produce /p/ | To imitate the production of /p/ in isolation with 90% accuracy over two consecutive sessions | a. The client will be shown the movement (contact and release) and placement of the upper and lower lip for the production of /p/.  b. To enhance the placement, a paper strip/straw will be used and the client will be instructed to hold the same between his lips. | Mirror, Paper strips/straw | Social reinforcement such as a clap and tangible reinforcement such as golden stars will be used.  Corrective feedback procedure will be used. |

* + 1. **Design a flexible therapy environment**
* Have control over therapy
* Gradually loosen the structure to make the treatment environment more like the person’s everyday environment
  + 1. **Implement the treatment program**
* Build rapport with the client (establishing a warm and friendly relationship with the client)
* Use objects, pictures, and demonstrated actions to evoke the target behaviors
* Start from concrete concepts and then the abstract ones
* Give instructions, demonstrations and explanations
* Model the target responses (demonstrate a specific behavior as an example for the client to imitate) and instruct to repeat
* Prompt the target responses (provide additional verbal or nonverbal cues to facilitate a client’s production of a correct response)
* Use manual guidance to assist in producing target responses (provide physical help when required)
* Shape the responses (Break a target behavior into small components and teach in an ascending sequence of difficulty)
* Fade the special stimuli including pictures, objects, modeling, prompts and manual guidance gradually to facilitate learning in gradual steps while maintaining the target response.
* Give positive feedback to the person
* Reinforce the client for his/her attempts towards correct production
* Proceed in therapy from simple to complex, i.e. from syllables or words, phrases, imitated sentences, to spontaneous sentences, conversational speech
* If the client can perform at a higher level do not use the lower level. Probe for generalized productions as often as necessary
* Assess progress towards established goals at specific intervals throughout the treatment program and at the end of the treatment. Modify the goals as and when necessary.
* Shift treatment, in progressive steps, to more complex level
* Always train the target behaviors in conversational speech with natural consequences
  + 1. **Implement the maintenance program**
* Train family members, teachers, friends, and professional caregivers in supporting the person’s communicative behaviors
* Teach them to evoke the person’s communicative behaviors and reinforce the person naturally
* Shift training to non-clinical settings and invite other persons to treatment sessions
* Ask family members to conduct informal treatment sessions at home
* Ask teachers to focus on target skills and integrate in classrooms
* Teach to self-monitor his or her errors and target behaviors
* Teach the person to self-correct mistakes
* Discharge when responses are produced in natural settings
  + 1. **Follow-up the person**
* Set up a schedule for follow-up
* Follow-up for duration necessary to show maintenance
* Record conversational speech sample during follow-up
* Measure the production of relevant communication skills
* Provide feedback of his/her performance
* If the productions are adequate, appreciate the efforts taken in maintaining the newly acquired speech behaviours
* If the productions are not adequate, counsel the client and provide a few sessions for therapy and continue the follow up.
  + 1. **MIDVAS**

According to Van Riper, the therapy proceeds through the following stages which can be summed up in the acronym MIDVAS (**M**otivation, **I**dentification, **D**esensitization, **V**ariation, **A**pproximation, **S**tabilization)

**Motivation:** Motivation is the most important underlying factor throughout the therapy process. It is the drive in the client to begin to take control of speech. The client becomes an active participant in the treatment process. If the client lacks motivation, the speech-language pathologist has to help the person build and maintain the motivation necessary for successfully changing communication behaviors.

**Identification:** This step involves helping the client to understand the errors in his/her speech and the negative feelings and attitudes associated with the disorder, if any.

**Desensitization:** This stage involves reducing the client’s fears, frustration, embarrassment, negative emotions etc. associated with his/her problem. It empowers the client to develop new strategies to cope with the problem.

**Variation:** Once some of the negative emotions have reduced, the client is able to change the way s/he speaks and change his/her reactions to the problem. It increases the control over speech in a variety of settings.

**Approximation:** The client now learns new specific strategies to smooth out and minimize the errors in his/her speech.

**Stabilization:** In this last stage the client becomes a confident communicator. He/she has acquired the skills to act as own clinician. The individual uses the strategies learnt during the sessions consistently in different daily life situations.

**2.4 Management of speech disorders**

Having understood the common procedures used in speech therapy, we shall now learn therapy techniques for different speech disorders. You already have learnt that speech disorders are classified into different types, viz., articulation, voice and fluency disorders.

**2.4.1 Management of articulation disorders**

Let us learn the common methods that can be used in therapy for articulation disorders.

**Minimal pair contrasts method:** Use word pairs that have minimal contrast. For e.g., bat-pat. What is the difference between these two words? Voicing of the initial consonant? Good. Select words that have vowels/consonants the child misarticulates. Obtain pictures for words in selected pairs. Begin therapy by modeling the target and the contrast words. Target the phoneme. Ask the child to imitate both. Give lots of trials for imitation. Following this, instruct the child to spontaneously name the picture. Ask him/her to say the target word as you pick the correct picture (s/he says boat and you pick up the picture of boat). Ask him/her to match two pictures by first picking a picture from several displayed and then selecting its minimal pair match.

**Phonetic placement method**: I hope you are aware of the various place and manners of articulation. You can use this in therapy. List sounds that are misarticulated by the child. Order them from easiest to difficult. For example, if s/he articulates one phoneme correctly in 2 out of 20 words, and another 0 out of 20 words, the former is easier than the latter. Start therapy with the easiest phoneme. Show and explain how to place the articulator in the production of this phoneme. Instruct the child to repeat. For example, if the child misarticulates /t/, show him/her the placement of tongue and ask him to say /t/. Repeat it several times. Say ‘good’ for correct productions. Slowly fade the verbal reinforcement. Move from syllable to word level. List ten words, each having /t/ in the initial, medial or final positions. Ask him/her to say /t/ correctly in these words. Following this, introduce phrases, sentences and conversation one after the other. Ask him to practice producing /t/ in each of these contexts. When s/he correctly articulates one phoneme, go to the next phoneme. Repeat the procedure. The figure below depicts the hierarchy in the articulation training.

Isolation /t/

Initial position, e.g., **t**ap, **t**ime

Syllable (ta)

Word level

Medial position, e.g., ge**t**up ea**t**ing

Final position, e.g., ca**t** po**t**

Phrase level, e.g., **t**all **t**ree potPick the apple

Sentence level, e.g., **T**ake the po**t**

Conversation, Reading, Narration

Isolation

Figure 2.1: Hierarchy for articulation training.

**Traditional method**: This is a method developed by Van Riper. Sounds are trained in isolation, syllables, words and sentences. Training includes 4 levels: (1) Ear training (2) Establishment (3) Stabilization and (4) Transfer.

1. **Ear Training:** Demonstrate how the target sounds is produced. Ask the child to raise hand when s/he hears the sound in isolation among sounds that are similar and dissimilar. Ask the child to raise hand when s/he hears the target sound first in words, then phrases, and finally in sentences. Speak correct and incorrect productions of the target sounds. Ask the child to identify correct and incorrect productions.
2. **Establishment:** Ask the child to imitate your correct production of target sounds in isolation, in syllables, or in words. Vary the phonetic contexts and ask the child to imitate.
3. **Stabilization:** Continue training the sound in isolation to encourage more consistent production. Switch from one sound to another. Ask the child to respond to printed letters that represent the target sounds. Ask the child to produce the sound in nonsense syllables. Move from simple to complex words. Continue training till the sound productions are stabilized in a variety of words and positions. Train at the phrase and sentence levels. Ask the child to produce sentences along with you in slow motion and at a rapid rate. Begin training at conversational level when the child can fluently and easily produce the target sounds in sentences. In conversation the target sound should occur maximum number of times. Move to spontaneous speech and reading if possible.
4. **Transfer:** Give specific speech assignments to complete at home. Request for parent’s reports. Teach self-monitoring. Use varied speaking situations for the child to use the target sounds.

**Check your progress I**

1. M in MIDVAS stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Reinforcement helps in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the frequency of a target behavior.
3. Goals concerned with small units of behavior are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Placement of the articulators is shown in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_method.
5. Ear training is a part of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_method.
   * 1. **Management of voice disorders**

The goal of voice therapy is to achieve normal sounding voice. Remember to refer the person to an ENT specialist before advising voice therapy. Rule out hearing loss in the person before therapy.

**Therapy for pitch disorders**

**Therapy to raise the pitch:** Teach the child about pitch, its variations and acceptable range. Model different levels of pitches. See whether the person can produce the desirable pitch even if for a brief period. Tape record his desirable pitch. Use this as a model for self-imitation. Also, provide a live model. You can also use instruments if available. Start therapy in phonation first and with single words, preferably those that begin with vowels. Stabilize the desirable pitch. Move from words to phrases, sentences and conversational speech. See that s/he maintains the pitch in non-clinical settings. Encourage him/her to use the new pitch in all speech situations. Train family members, teachers to prompt the child to use the new pitch. Ask them to reinforce when s/he uses new pitch.

**Therapy to lower the pitch**: Use the same procedure as above. Lower the pitch in gradual steps.

**Therapy for excessively loud voice**

Model the desired loudness level. Begin training by reducing the loudness level. You can use feedback. Reinforce progressively softer voice until the level is acceptable.

**Therapy for excessively soft voice**

Model the desired loudness level. Begin training by increasing the loudness level. Ask the child to phonate at different pitch levels. Observe whether change in pitch results in increased loudness. If so, reinforce him/her for speaking at that pitch. Pushing approach is a voice therapy technique to promote better approximation of vocal cords and is appropriate for increasing vocal loudness. Instruct and demonstrate pushing. Use the pushing approach when necessary as follows: Ask the child to push the arms against each other as you do a ‘namaste’. Ask him to phonate and push simultaneously. Reinforce louder voice. Fade pushing gradually. Reinforce louder voice until it is acceptable.

**Therapy for disorders of phonation – Abuse-based disorders**

Make assessment of vocally abusive behaviors such as frequent throat cleaning, shouting, yelling, screaming etc. Explain the child and the family the harmful results of vocally abusive behavior. Ask the client to measure his/her vocally abusive behaviors for a few days and write the habitual frequency (measure it using a software) on a daily basis to establish baselines in natural settings. Ask the parents of young children to count and plot on graph of abusive vocal behavior on a daily basis. Design and implement a program to reduce the abusive vocal behaviors, for e.g., the progress may include reduction of the vocally abusive behaviors in steps. Ask the person/friend/parent to help establish the reliability of measures of vocally abusive behaviors. In progressive steps decrease the frequency of specified vocally abusive behaviors (e.g., the first week after a baseline of 10 episodes of screaming by a child, a criterion of 7 episodes may be held in the following weeks, the number is systematically reduced finally to zero). In case of a child who talks too much, periods of silence may be required.

During therapy modify vocally abusive behaviors by teaching to:

1. initiate sounds softly
2. speak at an appropriate loudness and pitch
3. reduce the frequency of coughing or throat clearing
4. breath through the nose
5. use an easy, relaxed breathing pattern when speaking
6. speak with relaxed speech muscles
7. open mouth widely during talking

* Refer the person for periodic ENT examination
* Make periodic assessment of voice if and when the medical or surgical treatment is repeated
* Follow-up to ensure maintenance of vocally appropriate behaviors

**Therapy for hypernasality**

* Make an assessment of the specific resonance problem - hypernasality or hyponasality
* Rule out the presence of cleft palate
* Do not offer therapy unless the organic problem is eliminated
* Work with the prosthodontist if s/he needs specific fabrication of a prosthetic device
* Assess speech before and after surgical or prosthetic treatment

Give therapy only when there is adequate or at least marginal velopharyngeal adequacy. First of all strengthen the muscles of velopharyngeal closure. You can do this by asking the person to blow the cheek, blow a balloon, and suck through a straw. Reinforce correct activities. After muscle training, you can directly work on the phonemes that are hypernasalized. Provide a correct model. Ask the person to imitate more gradually from hypernasal voice to normal voice. Provide sufficient reinforcers. If necessary, provide tactile feedback. Ask the person to keep his fingers below the nostril. He should not feel air flow for non-nasal sounds. Sometimes, if available, visual feedback can be used.

**Therapy for hyponasal voice**

Assess hyponasality. Give therapy only when it is clear that there is no organic pathology like obstruction in the nasal cavity. The therapy is essentially the same as in hypernasality. Model, reinforce and gradually move from one step to another.

* + 1. **Management of fluency disorders**

There are several evidence-based therapies for stuttering. One such therapy technique will be dealt here. The prolonged speech technique has several variants. We shall learn about the prolonged speech technique that is used at AIISH, Mysore. The rationale of the technique is that the person has more time to speak and hence (a) he will have more time for articulatory movements, (b) he will not have the stress and intonation patterns used in normal speech and hence stuttering may disappear, and (c) prolongation offers a kind of relaxation. The technique has a step-wise procedure. Make sure that the person is 95% fluent before moving from one step to another.

Step I: Prolongation of initial syllable (all syllables if severe stuttering) of each word

Step II: Therapist monitoring - Therapist identifies stuttering and asks person to use prolongation

Step III: Self-monitoring – Person stops when s/he stutters or in anticipation of stuttering uses prolongation

Step IV: Generalization with therapists’ support - Therapist accompanies him and observes and supports while speaking to others.

Step V: Generalization without therapists’ support – Therapist gives assignments (speaking in a market, enquiry center etc.) and s/he has to report back about fluency.

Discharge and follow-up once a month

In addition person practices for 2 hours a day (5 slots of 20 minutes each) and charts (draw a vertical line each time he has stuttering) the progress and submits it everyday as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Practice I | Practice II | Practice III | Practice IV | Practice V |
|  |  |  |  |  |  |

Recording fluency of persons will be done in the following form:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Pre-therapy | Post-  therapy  (PT) | 1-month  PT | 2-month  PT | 3-month  PT | 4-month  PT | 5-month  PT | 6-month  PT |
| % dysfluency |  |  |  |  |  |  |  |  |
| Rate in WPM |  |  |  |  |  |  |  |  |
| Effort |  |  |  |  |  |  |  |  |
| Naturalness |  |  |  |  |  |  |  |  |

Persons with hearing impairment, mental retardation, cerebral palsy and other disorders also can have speech problems. The techniques described here can be used to treat the speech problems seen in these persons.

**Check your progress II**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_technique helps better approximation of vocal folds.
2. Excessive throat clearing is a vocally \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_behaviour.
3. Using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_breathing pattern during speaking helps improve voice.
4. Keeping the finger below the nostril to feel the airflow is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_type of feedback.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of initial syllable is a treatment techniques for persons with stuttering.
   1. **Let us sum up**

In this unit we learnt about the common therapy procedures used in the management of speech disorders. We also learnt the steps in executing speech-language therapy which included assessing baseline, identifying the long term and short term goals, designing the activities, reinforcement and feedback procedures and preparing the materials required. Documentation of these in the form of a lesson plan is also essential. In this unit we also learnt about the specific therapy procedures to be used with persons with articulation, voice and fluency disorders.

* 1. **Answer keys to check your progress**

**Answer keys to check your progress I**

1. Motivation
2. Increasing
3. Short term goals
4. Phonetic placement
5. Traditional

**Answer keys to check your progress I**

1. Pushing
2. Abusive
3. Relaxed
4. Tactile
5. Prolongation
   1. **Questions for self study**
   2. List the steps of speech-language therapy.
   3. Highlight the relationship between long and short term goals with suitable examples.
   4. Explain the significance of reinforcement in speech-language therapy.
   5. Expand MIDVAS and describe each component
   6. Write a sample lesson plan for a child with articulation disorders.
   7. Discuss any one therapy method for articulation disorders
   8. What therapy would you conduct to raise pitch?
   9. What principles would you follow to reduce vocally abusive behaviours?
   10. Write three exercises that can strengthen muscles of velopharyngeal closure.
   11. Explain any one technique to deal with fluency disorders.

**2.8 Suggested Readings**

Hegde, M. N. (1996). *Pocket guide to treatment in Speech-Language Pathology.* San Diego. London: Singular Publishing Group, Inc.

Meyer, S.M. (1998). *Survival guide for the beginning speech-language clinicians.* Aspen publishers, Maryland.

Owens, R.E., Metz, D.E., & Farinella, K.A. (2011). *Introduction to communication disorders: A lifespan evidence based perspective*. 4th Edn. Pearson Education Inc. NJ.

Roth, F.P., & Worthington, C.K. (2016). *Treatment resource manual for speech-language pathology.* Cengage Learning, USA.

**Unit 3: Management of Language Disorders**

**3.1 Objectives**

**3.2 Introduction**

**3.3 General language therapy approaches – Rationale, setting goals/planning (short term, long term) steps, MIDVAS**

3.3.1 Language therapy approaches

3.3.2 Content of language skill teaching and activities to enhance them

3.3.3 Some tips to stimulate language

**3.4 Speech and language stimulation techniques**

**3.5 Language therapy for a few disorders**

3.5.1 Hearing impairment

3.5.2 Mental retardation

3.5.3 Cerebral palsy

* 1. **Let us sum up**

**3.7Answers keys to check your progress**

**3.8 Questions for self study**

* 1. **Suggested readings**

**3.1 Objectives**

After going through this unit you will be able to learn the

* General language therapy approaches
* Speech and language stimulation techniques
* Language therapy for hearing impairment
* Language therapy for mental retardation
* Language therapy for cerebral palsy

**3.2 Introduction**

Language is an important skill that allows a person to communicate. It is a tool for expressing ideas, desires and thoughts with other fellow human beings. Language with the primary skills of speaking and listening and secondary skills of reading and writing is essential for facilitating interaction between human beings. In normal or typically developing children, language develops effortlessly at a pre-determined pace. However, language develops at a slow pace in children with hearing impairment, mental retardation, cerebral palsy etc. This creates a communication gap between the child and his/her parents as the child is not able to express his/her needs which further leads to frustration in the child. Thus, improving language skills in children with such communication disorders becomes important.

Language skills can be improved to a certain extent through speech and language therapy. Therapy is a long term process and has to be implemented in a systematic, effective, and efficient manner. This unit revolves around the management of language disorders. It deals with the commonly used approaches to improve language skill. In this unit we shall also learn about the speech and language simulation techniques which are used to enhance language skills. In addition, we shall also learn about the language therapy, specifically for children with hearing impairment, mental retardation and cerebral palsy.

**3.3 General language therapy approaches – Rationale, setting goals/ planning (short term, long term) steps, MIDVAS**

The term ‘intervention’ primarily refers to the implementation of a plan of action to improve one or more aspects of an individual’s abilities. The intervention of children with communication disorders involves a team approach and is a big challenge to every professional in the field since each child has a unique combination of strengths and weaknesses. This unit deals with language intervention in specific. The goal of any speech and language intervention program is to develop or improve communication skills which include speech and language skills. Language therapy focusses on improving comprehension and expression of the child. The specific objectives would be to improve the vocabulary, length of utterance, narration and conversation skills. Teaching language will help the child in expressing his/her day to day needs, rejecting an item, conveying messages to others, social interaction and gaining knowledge.

The earlier a systematic program of language stimulation is provided, the more effective it is likely to be. The child will consequently derive greater benefit from the rehabilitation process. This would also minimize the effects of handicap on the child’s growth and development and maximize opportunities to engaging in normal day to day activities. This will also prevent the development of secondary handicaps which could develop if the primary problems were not intervened.

**3.3.1** **Language therapy approaches**

Plenty of strategies are available to teach language which can be broadly classified into directive or naturalistic. In techniques with a more directive focus, the speech-language pathologist (SLP) providing the intervention controls or directs the intervention. It is carried out in a more structured manner with the SLP deciding on the goals and activities to be carried out during the sessions. In techniques with a more naturalistic or non-directive focus, the SLP attempts to create learning opportunities for the child in a less structured environment. Naturalistic interventionsfollow the child’s focus of attention or interest and allows the child to initiate an interaction.

There are several approaches to improve language skills. However, only a few common approaches used in language intervention have been described below. You can use these individually or in combination.

**Focussed stimulation:** Expose the child to the target word to be taught in a variety of contexts repeatedly. Produce the same target word in high concentration during different situations such as play time, story time, etc. between you and the child. This would improve the comprehension of the word.

**Incidental teaching:** This is a naturalistic approach that encourages a child to initiate communication by arranging the materials in the environment to increase the likelihood that the child will produce the target word. The child’s successful communicative attempts are rewarded through natural consequences such as a requested object or event.

**Multisensory approach**: Here **v**isual, **a**uditory, **k**inaesthetic and **t**actile (VAKT) cues are used to promote the understanding of the target word.

**Family centered approach:** This approach trains parents and other caregivers to foster the development of language and communication in naturalistic context such as home setting.

Talking to the child is an important ingredient of the language learning process. They can be talked to during dressing, bathing, feeding or while engaging them in play activities etc. They could be shown picture books and engaged in a conversation by the pictures in the books. The conversation can revolve around toys, objects, etc. It is also important that the talking should be simple, natural and spontaneous and according to the language level of the child. Frequent talking leads to:

* increased attempts to vocalize (produce some sounds)
* gives the child the opportunities to imitate
* allows the child to continuously compare his/her rough approximations of words/phrases with the correct adult model
* teaches the relationship between spoken words and object/actions in the environment
* the child gaining knowledge of the rules underlying language and learning to use these rules for creating new utterances.

**3.3.2 Content of language skill teaching and activities to enhance them**

For very young children there is a need to work on basic skills such as mutual gaze, joint attention and joint action before language concepts are taught.

**Mutual gaze:** The ability of the infant and the caregiver to look at each other during interaction.

**Joint attention:** The ability of infant and the caregiver to focus on the same object in the environment.

**Joint action:** The ability of infant and the caregiver to involve in the same play.

Here are some activities which can encourage these basic skills:

* Place an attractive or noisy object in front of the infant, look at it and comment on it. You can point to it, shake it, talk about it, and bring the object in the line of vision of the child. This will enhance joint attention.
* Play games like peekaboo, or ‘I am going to catch you’ will help enhance joint action and mutual gaze.

Once the child is able to sit and focus through a task, the primary aim is to increase the child’s vocabulary. The nouns are dealt with at first which includes names of common objects, body parts, food items, fruits, vehicles, animals, clothes etc. Words which are commonly used are generally taken up for training in the initial stages. The models of objects or the actual object itself needs to be used for training initially followed by pictures.

Provide an opportunity to use all the senses while learning language, for e.g., to learn the word ‘apple’ the child has to be provided with a complete experience of it repeatedly. The child has to hear the word apple along with seeing, touching, tasting and smelling it, i.e., say the word apple and allow him to see it simultaneously. Also allow him to touch, taste and smell it. When this is carried out several times, the child comprehends the word ‘apple’. Similarly while teaching the concept of ‘eye’, seat the child in front of a mirror and as you point to the child’s eye, say ‘eye’. Then hold the childs’ hand and help him point a finger toward his eye while again saying ‘eye’. Later a doll can be shown and the same can be taught. If the child has tightness in his hands, then encourage the child to blink his eye as you name it rather than insisting the child to point to it. This approach in which the child gets a perceptual experience (through the use of all his senses) goes a long way in learning different concepts.

Another way to enhance comprehension is to repeatedly present the target word during an activity. The target word can be said loudly or in an exaggerated way varying the voice pattern so that the target word is highlighted. Here is an activity to stimulate comprehension.

Can you find the monkey’s ***banana***? Oh! I see the ***banana*** right here. Do you see the monkey’s ***banana***? Aha!!, the monkey is trying to take the ***banana***. Quick, point to the monkey’s ***banana***.

The comprehension can be further enhanced by carrying out matching exercises viz. object to object matching, object to picture and picture to picture matching etc. Then comprehension can be checked by asking the child to identify objects, e.g. “show me your shoes”, “where is the chair?” etc.

A deeper understanding of the concept develops through active use of the words/sentences in relevant contexts. Action words such as go, want, give, take, eat, sleep, walk etc. are also taught. Get the child to carry out meaningful activities using these words. Photos of the child engaged in eating, sleeping, walking can be taken and the same can also be used for training. Words such as big, small, good, bad, up, down, in, out etc. are also taken up for training. The child is also taught to follow simple commands/instructions such as ‘get the ball’. As the child learns these, more complex words, ‘wh’ questions and grammatical structures are introduced.

Along with working on comprehension, the expression of the child also needs to be improved. The speech and language stimulation techniques mentioned in the next section helps the child to achieve this. Initially vocalisations need to encouraged since it is one of the child’s earliest method of using language. Vocalisations include production of some sounds such as squeals, growls etc., vowels or consonant vowel combinations such as bababa or dada. The frequency and the variety of vocalizations can be promoted by talking to the client, singing, humming, tickling or playing game such as peekaboo. You can also imitate the infant’s vocalizations in a playful manner to initiate a repetitive imitative exchange. Vehicle sounds such as dr..., animal sounds such as meow, environmental sounds as tring.... etc. can be produced by you as generally children love listening to these sounds and may attempt to reproduce these. Later move on to eliciting communication intentions; that means the desire to communicate, e.g., requesting for something or protesting etc. They need to express these desires though single words. Some activities that can be carried out to enhance this are as follows:

* Introduce toys that cannot be operated without assistance from you, e.g., wind up toys
* Place highly desirable toys which the child loves in a place from where the child cannot take it independently without your assistance.
* Display attractive food in a plastic transparent bag. Open and eat without offering to the child. Encourage the child to ask for it.
* Hand the child with four similar objects to drop in the box, provide a different item the fifth time.
* Present toys with missing parts so that the child would ask for the missing part from you.
* Identify what the child requires to communicate and rearrange the environment so as to make the child ask for the same, i.e., create a need to communicate in the communication context.
* Objects which the child likes can be hidden so that the child asks for it. This could encourage questioning behaviour in the child.
* Intentionally make an error in your actions while doing routine activities such as eating with a pen rather than a spoon. This would evoke a protest from the child, if not draw the child’s attention to it and make him/her aware of the error and correct it.

Teach other words which can be used by the child in their day to day life such as names of food items, common objects etc. The following activity can be carried out to enhance this.

* Introduce a container filled with interesting objects and reveal them to the child one at a time. Say the name of the object and encourage the child to imitate it.
* Expose an attractive object and then hide it from the child’s view.
* Engage the child in playing with vehicles
* Reading books together develop both comprehension and expression of the child. Use colourful books with things to touch and language that repeats over and over again.

Later move on to eliciting phrases and simple sentences from the child. Narrative skills and conversation also need to be enhanced in these children. The activities that enhance narrative skills are as follows:

* Picture description
* Engaging the child in activities such as making tea/lemon juice
* Nature trips
* Incident narration
* Storytelling
* Language based games

By and large the intervention program is based on the development of language skills in normal children.

**3.3.3 Some tips to stimulate language**

* When the child initiates a sound or word that the adult can recognize, even though it is not exactly correct, provide cues to the child that this is an acceptable word or sound by responding appropriately to it (e.g., getting the child some milk) and by smiling or touching the child as a positive reward or success.
* When the child attends to an object or action (either being experienced or depicted pictorially), model the correct label for the object or action and then ask an appropriate question such as ‘What is that’? If the child produces the correct response, say ‘yes’ and repeat the utterance produced by the child. If the child produces an incorrect label or does not respond, produce the correct label for the child to hear.
* Do not anticipate and express the child’s needs before he/she has a chance to make them known to you. If the child gets what s/he wants without communicating for it, s/he will not even bother to point, gesture, or possibly talk.
* Delay your responses to the child's pointing, gestures, or babbling when s/he wants things. When the child points or gestures without attempting to talk, pretend you don't understand what s/he wants for 15-20 seconds and then respond appropriately.If s/he attempts to say any meaningful word(s), immediately reinforce positively. Otherwise you say the appropriate word and get the child to imitate.
* Use slow, clear, simple sentences when talking to your child.
* Use every opportunity to respond in an appropriate way to the child’s attempts to express during activities.
* Give instructions, demonstrations and explanations.
* Use visual aids, flash cards, colourful and attractive toys
* Get down to the level of the child and face him/her when you talk
* Start with objects and then move on to pictures
* Start with concrete concepts and then move on to abstract ones
* Get the childs’ attention before talking to the child by tapping her and calling her name. Make sure that the child is looking at you when you talk
* Encourage, but do not force the child to speak
* Planning and executing a carefully controlled but natural situation such as ‘let’s go to the market’, tea party, dinner/birthday party etc. with the necessary materials would provide an opportunity for new communication forms to be taught to the child.
* Variety in language input helps the child acquire language more effectively. Variety can be increased by involving the child into all activities where the child can participate.

The child begins his first social interaction with parents which serves as a basis for future social relationships as adults. Hence, if the intervention has to be successful, parental inclusion in the team is crucial.

Refer to unit 2, section 2.3 for the procedures for language therapy. The procedures mentioned in the unit 2 under speech disorders apply for language disorders too. Here is a sample lesson plan.

Table 3.1: A sample lesson plan for a child with a language disorder.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Baseline** | **Goals** | **Activities** | **Materials required** | **Reinforcement or feedback procedures** |
| The client is unable to follow one step commands | To follow one step commands with 90% accuracy over five consecutive sessions, e.g., Throw the ball  Bring the ball  Give the ball | 1. Demonstrations will be used 2. Modeling also will be used to make the client follow one step commands | Ball | Social reinforcement such as a clap and tangible reinforcement such as golden stars will be used. |

**3.4 Speech-language stimulation techniques**

A number of techniques have been found to be useful in overcoming deviant language and establishing appropriate language structures. These techniques are intended to be applicable at many levels of language training. They may be used individually or in conjunction with one another. These can be used in everyday situations to encourage vocabulary development and teach specific grammatical structures. They should be used consistently and immediately after a child’s utterance. By using the following techniques, you are telling the child that you are interested in what s/he is saying while providing a model of a grammatically correct utterance that is clearer and more complex. Some of the commonly used techniques have been described below:

**Imitation:** Repeat exactly what your child says, but use correct articulation. For example, if the child says “widdle wed wabbit”, you say, “little red rabbit” and help the child imitate the correct utterance.

**Modelling:** Repeat the child’s utterance using correct grammar and/or vocabulary, exaggerating the structures or words that you are modifying/replacing. The idea is to offer the child a meaningful grammatically correct utterance based on the child’s utterance. The conversation between the child and the therapist highlights on using the modelling technique. For e.g.,

Child: They eat.

Therapist: You’re right. They **are** eat**ing**

**Description:** Describe the object the child is interested in using short phrases, for e.g.,

That’s a big ball, This glass is broken etc.

**Expansion:** Add a few more words and/or information to the child’s utterance, for e.g.,

Child: They play

Therapist: Yes, they **are playing football.**

**Binary Choices**: Offer choices between the incorrect versus the correct structure, for e.g.,

Child: “Him was so funny!”

Therapist: “Is it, ‘Him was so funny’ **or** ‘He was so funny’?

**Open ended questions**: Ask questions that are broad in their context and which elicit responses in sentences and not just single word responses such as ‘yes’ or ‘no’. For e.g., “What would happen if it rains?

**Parallel talk**: Describe in short phrases what the child is doing, seeing, hearing, as he does it, e.g., “You’re pushing the car”, “You see the red bucket”. Give the child the right words to describe the action s/he is involved in.

**Self talk:** Use short sentences to describe the activity that you are involved, e.g., “I am washing the cups”, “I am cutting the carrots” etc.  Use short, simple sentences to help the child know there are words to describe things people do.

**Check your progress I**

1. The approach in which the target word is produced in high concentration in a variety of contexts by the therapist repeatedly is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The ability of the infant and the therapist/caregiver to involve in the same action/play is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The desire to communicate is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The technique in which the therapist adds a few more words to the child’s utterance is called as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Using short sentences to describe the activity that you are involved in is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**3.5** **Language therapy for a few disorders**

**3.5.1 Language therapy for children with hearing impairment**

Hearing is critical to speech and language development, communication, and learning. Children with listening difficulties due to hearing impairment exhibit a delay in the development of receptive and expressive language skills. The language deficit causes learning problems that result in reduced academic achievement which inturn often leads to social isolation and poor self-concept. Hence, it is important to improve language skills in these children.

When hearing loss occurs at birth or within the first few months of life ("prelingual" onset), the impact on communication development is usually significant because the loss occurs during the time considered critical for language development. The effect of even a mild hearing loss can delay speech and language development in a young child. In such instances early intervention results in optimal development of communication skills. The main objective is to ensure optimal acquisition of speech and language. The early development of language for a child with hearing impairment is a key step towards the ability to successfully communicate as an adult. In children with mild hearing impairment, such a goal can be achieved by careful fitting of amplification devices and by providing speech and language stimulation during the early years. For children with severe hearing impairment, the task is more difficult and the progress may be slow.

To learn language it is important that the child wears his/her hearing aid on a regular basis and makes maximal use of his/her residual hearing. If child has been provided good training from an early stage s/he would be able to develop good speech and language. S/he would usually be able to use speech as a mode of communication. Depending on the auditory abilities the child may have to depend or not depend on speech reading. The various steps in the rehabilitation process are

* Fitting with an appropriate amplification device
* Auditory learning
* Speech and language therapy
* (Special) preschool training program
* Inclusive education program

A collaborative team effort of professionals such as an Audiologist, Speech-language pathologist, ENT specialist and Special educator is essential. In addition, a strong commitment and involvement from the family towards the development of oral language is also needed.

**Teaching oral language**

You can use the approaches and speech and language stimulation techniques described in the earlier section. Here are a few additional tips:

* + Begin speech and language stimulation as early as possible
  + Teach the words (mama, come, give, go, no etc.) that will help the child in expressing day to day needs (functional words)
  + Teach phrases and sentence structures subsequently
  + Pay special attention to teaching (a) morphemes (happi**ly**, happi**ness**, happi**er**, **un**happy, pen**s** etc.), (b) tense forms (past, present, future; e.g. I am eating, I ate, I will be eating), (c) abstract terms (e.g., beautiful, fear, brave) (d) synonyms and antonyms, as they are difficult to children with hearing loss
  + Also pay special attention to teaching conversational skills (initiating conversation, taking turns in a conversation, responding to questions appropriately, maintaining eye contact with the listener, maintaining a topic over several turns, asking for clarification when the message is not understood etc.)
  + Use visual cues in all training sessions especially in the initial stages

In addition to language skills, speech skills also need to be enhanced in these children. The techniques described in the previous unit can be used. In addition, here are a few suggestions:

**Teaching articulatory skills**

* + Give visual cues while teaching different speech sounds using a mirror
  + Place your articulator appropriately for the production of a speech sound
  + Show it to the child and ask him to do the same
  + Touch cues can also be used, for e.g.., say /aaa…/, place the child’s hand on your neck and allow him feel the vibrations.
  + Pay special attention to teaching the voiced and unvoiced sounds. Touch cues can be used for this purpose

**Teach appropriate voice** (in case the person has a voice disorder)

* Use any standard techniques described under voice disorders in the previous unit
* Use visual feedback
* Modify pitch, loudness, and quality depending on which is affected

**Teach smooth speech flow**

* Reduce pauses that may be too frequent and placed inappropriately
* Teach the child to reduce the time gap between two syllables in a word, thereby improving overall speech rate and clarity
* Teach appropriate prosody (variations in pitch and loudness which would make the speech sound more natural) with modeling
* Teach appropriate breath control to improve phrasing

If the parents/caregivers do not stimulate the child at home through speech, even if the child has the auditory abilities, s/he will not learn to communicate using speech. It is very important that the child should be exposed to good quality speech if s/he is to develop good speech.

**3.5.2 Language therapy for children with mental retardation**

Children with mental retardation often experience delayed development of speech, language and many other skills, which may result in slow learning and difficulty progressing in school. The problems seen in these children depend on the degree of severity. In addition to speech and language problems, they also exhibit a variety of behaviour problems such as hyperactivity, poor attention span etc., cognitive deficits such as poor thinking and reasoning abilities and poor self help skills (difficulty in carrying out day to day activities independently). The intervention for these children also involves a team approach. They may require the services of medical professionals, clinical psychologist, SLP, audiologist, special educator etc.

The therapy starts with establishing a rapport with the child and assessing the baseline. The child’s current languages skills as well as other skills need to be assessed. This will serve as a standard for comparison of progress achieved by the client subsequently through therapy. Prepare a lesson plan based on the baseline.

Since children with mental retardation may have difficulty in basic skills such as attention span, eye contact, sitting behaviour, following instructions, watching the people in the environment etc., it is essential to improve these initially. They can be engaged in building a tower with blocks, threading beads, clay modelling, puzzle solving etc. to improve their attention. They need to be taught to look at different objects and handle them appropriately, and imitate some actions such as clapping, shaking head etc. Eye contact can be improved by holding your face close to the child’s face and talking to the child, while you encourage the child to look at you. Colourful attractive objects can also be held near your face as you talk to the child about the object. You can also call the child’s name and when s/he looks at you, praise by smiling and talking. Use lots of facial expressions. Sing songs to the child as the child watches you. Playing peek-a-boo also helps.

**Improving language skills**

The speech and language stimulation techniques described in the previous section can be used to improve the language skills in the child. In addition, the following tips may be useful.

* Use language and vocabulary with which the child is familiar. In the initial stages of therapy, use very simple language and vocabulary
* Frequent repetition will be required till learning takes place. The client would require much more time and practice, before the task is mastered
* Present only concrete concepts because the child may find it very difficult to learn the abstract ones.
* Task analysis works well with these children. Break a task into smaller units and teach unit by unit.

Since children with mental retardation may have limited abilities in the context of solving problems, they need to be taught to solve simple day to day problems. Their thinking and memory skills also need to be improved. Since some of them may have behavioural problems, they may have to undergo behaviour modification therapy by a clinical psychologist.

**3.5.3 Language therapy for children with cerebral palsy**

Children with cerebral palsy (CP) could have communication disabilities ranging from relatively mild to severe. Those with mild CP will be able to speak fairly clearly and will have near normal language abilities. However, those with severe CP could have no speech or unclear speech and restricted languages abilities. The language development in these children is affected by the complex interaction of several factors. Most children with CP have associated problems such as mental retardation, hearing impairment, visual impairment etc. which may affect the development of language. The restricted motor abilities also prevent them from exploring and learning from their environment which further restricts language abilities.

Since they have associated problems in addition to their core physical problems, there is a need for an interdisciplinary team to cater to their needs. They may require the services of medical professionals, physiotherapist, occupational therapist, SLP, audiologist, special educator etc. The entire team needs to work closely with each other with a complete understanding about what each member is doing to improve the child’s condition. Early identification and intervention is also essential which can minimize the adverse impact that CP can have on the daily life of the individual.

The main goals of speech-language therapy will be to improve speech and language skills. The children pick up some amount of language over time with adequate stimulation. However speech production may not always be an achievable goal in all children. In many instances the goal could be only functional communication through the use of some speech production supported with some other alternate means of communication such as pointing at pictures in communication books/devices.

After the evaluation, as a first step, build rapport with the client and assess the baseline, i.e., identify the child’s level of language development. This would help in framing appropriate goals so that through therapy, you can help the child advance to a higher level of communication. Awareness of the different sensory stimuli should be enhanced initially because this would help the child pay more attention to his surroundings, For e.g., shaking a rattle in the child’s line of vision, using a mirror to enable the child to see his movement, making the child feel the textures of different objects and by exposing the child to different sounds. Use different types of stimuli and provide many opportunities for interaction with the environment.

Creating a normal communication situation in all environments will provide the most facilitating atmosphere for the development of language in the child. Language skills can be improved by using all the approaches and techniques mentioned under section 3.3 and 3.4. In addition, the following may help:

* Providing play opportunities for the children with an adult helps improve language
* Providing physical guidance is an integral part of language therapy
* It is important to allow more time for the child to respond
* Look out for any small attempt the child makes to communicate and always respond to the same
* Provide choices which can increase the motivation of the child to let you know what s/he wants. For e.g., let the child choose between two toys or food items. Ask questions: “Do you want an apple or a biscuit?”
* Being consistent and repetitive during daily routines helps

In addition to language, other skills need to be worked upon. Special care should also be given to improve the overall posture by positioning and seating the child appropriately. Adequate breath control and support needs to be worked upon by correcting the breathing patterns. Blowing activities can also be carried out. Voice control needs to be worked upon in some children with CP. Articulation and speech clarity is affected in almost all children with CP to varying degree and hence need to be improved. The articulation training techniques described in unit 2 can be used for the same. Training to improve chewing, sucking, and swallowing may help in improving the oral muscle control. Since one or more systems of speech production are affected, all these systems are worked upon rather than focussing on one structure.

Success in therapy depends on the extent of involvement of parents and other family members in the rehabilitation process.

**Alternate means of communication (nonverbal method)**

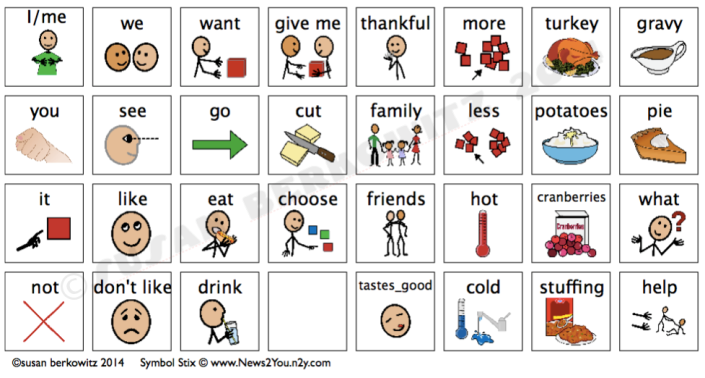
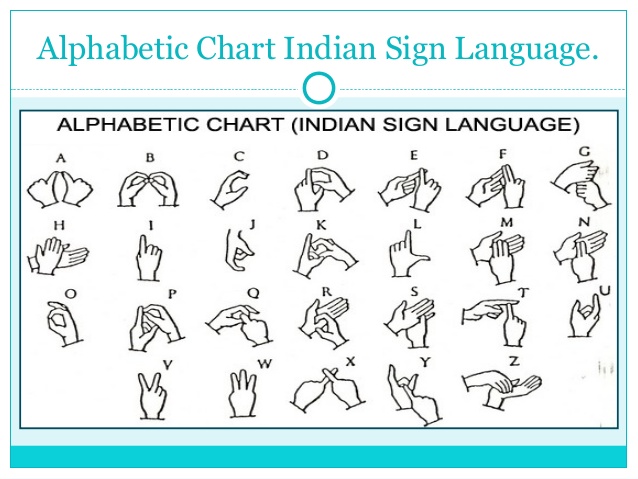
Persons with severe disabilities can face extreme difficulties in learning to speak. In addition, sometimes a child with any developmental disorder can present with a combination of clinical concerns. For instance, a child with cerebral palsy can have hearing impairment, visual impairment, mental retardation etc. Each of these can cause a communication breakdown. In the presence of multiple/severe disabilities, children fail to develop speech or have very little speech which is hardly clear to the listeners. It is hence mandatory to explore the communication options through Augmentative and Alternative Communication (AAC), as the children may not develop the necessary speech skills. Augmentative communication involves using various methods and/or equipments to assist in the child's communication. For e.g., manual signs, communication devices, communication board, computer, or dedicated electronic devices. Sometimes children with communication disorders are helped to learn and use both speech (verbal) and AAC (nonverbal method). Combining the two approaches may help them to learn to communicate easier and better. This in turn will have a far-reaching effect on child’s holistic development, especially on his/her communication abilities. The figures below depict some of the AAC aids.



Figure 3.1: A few AAC aids.(Source: <https://katilea.files.wordpress.com/2010/06/p2g-on-ipad.jpg>, <http://kidzlearnlanguage.blogspot.in/2014/11/can-your-aac-user-speak-up-at.html>, http://www.slideshare.net/nickkr184/deaf-dumb)

**Check Your Progress II**

1. Fitting of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the first step in the intervention of children with hearing impairment.
2. Words that are used in day to day life and that have to be taught in the initial stages are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ words.
3. Frequent \_\_\_\_\_\_\_\_\_\_\_\_\_ is required for children with mental retardation to learn language.
4. Breaking a task into smaller units and teaching them one by one is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Providing \_\_\_\_\_\_\_\_\_\_\_\_guidance is an integral part of language therapy for children with cerebral palsy.

**3.6 Let us sum up**

Language intervention for children with communication disorders was the focus in this unit. You learnt about the approaches in language therapy and a few speech and language stimulation techniques. You have also learnt about what needs to be taught to these children in an effort to improving language and also how to teach them. In addition, you also learnt about the language intervention procedures in children with hearing impairment, mental retardation and cerebral palsy.

**3.7 Answers keys to check your progress**

**Answers keys to check your progress I**

1. Focussed stimulation
2. Joint action
3. Communication intent
4. Expansion
5. Self talk

**Answers keys to check your progress II**

1. Amplification devices
2. Functional
3. Repetition
4. Task analysis
5. Physical
   * 1. **Questions for self study**
6. Describe the common approaches used in the language intervention.
7. List any four speech and language stimulation techniques and explain briefly about each.
8. Write a sample lesson plan depicting the language for a child with mental retardation.
9. List a few activities to enhance communication intent.
10. Describe the ways in which language could be improved for a child with cerebral palsy.
    * 1. **Suggested readings**

Hegde, M. N. (1996). *Pocket guide to treatment in Speech-Language Pathology.* San Diego. London: Singular Publishing Group, Inc.

Meyer, S.M. (1998). *Survival guide for the beginning speech-language clinicians.* Aspen publishers, Maryland.

Owens, R.E., Metz, D.E., & Farinella, K.A. (2011). *Introduction to communication disorders: A lifespan evidence based perspective*. 4th Edn. Pearson Education Inc. NJ.

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Reddy, G.L., Kumari, P.S., & Kusuma, A. (2004). *Language disorders and intervention strategies: A practical guide to the teachers*. Discovery publishing House, New Delhi.

Venkatesan, S. (2007). *Children with Developmental Disabilities: A Training Guide for Parents, Teachers and Caregivers*. New Delhi: Sage Publications.

**Unit 4: Educational Issues**

**4.1 Objectives**

**4.2 Introduction**

**4.3 Education of children with speech and language disorders**

4.3.1 Need for special education for children with speech and language disorders

4.3.2 Benefits of educating children with special needs

**4.4 Educational problems faced by children with speech and language disorders**

**4.5 Preparatory training**

* + 1. Parent-Infant programme/early stimulation programmes
    2. Preschool training program
  1. **Types of educational set up (mainstreaming and segregation)**
     1. Mainstreaming: Inclusive education and integrated education

4.6.2 Segregation: Special day classes, special day schools and special residential schools

**4.7 Curricular development/adaptation for children with speech and language disorders**

* + 1. Individualised educational plan
    2. Teaching curricular subjects (other than language) to children with speech and language disorders
    3. Some additional tips to promote learning
    4. Adaptations made while teaching specific curricular subjects

**4.8 Preparation and/ use of teaching aids and language work book**

* + 1. Need and uses of teaching aids
    2. Types of teaching aids
    3. Language workbooks
    4. Contents of language workbooks
    5. Uses of language workbooks
    6. Disadvantages of workbook activities in teaching language
    7. Linking teaching aids and language workbooks

**4.9 Role of speech and hearing technician in education of children with speech and language disorders in educational settings**

**4.10 Community based rehabilitation**

**4.11 Let us sum up**

* 1. **Answer keys to check your progress exercises**
  2. **Questions for self study**

**4.14 Suggested readings**

**4.1 Objectives**

After going through this unit you will be able to write on the:

* Purpose of education
* Educational problems faced by children with speech and language disorders
* Preparatory training services
* Different educational setups available for these children
* Measures taken for helping these children in learning school subjects
* Teaching aids prepared and used to aid these children in their education
* Your role as a speech and hearing technician in the education of children with these disorders
* Community based rehabilitation and its importance

**4.2 Introduction to education**

Education is any formal training received through schools, colleges, training institutions or any other informal means that helps a person learn knowledge and skills which are necessary to lead life, and also help in upgrading the quality of life. Education is a process that helps you survive in life, and even make the quality of your life better.

You are aware that children with speech and language disorders such as mental retardation, cerebral palsy etc. face problems in understanding and speaking. This could in turn affect their ability to learn in school. Therefore, early educational training needs to be provided to these children in order to prevent academic difficulties. The earlier the educational training, the easier it is for them to adjust and perform in a school environment. There are some services available to train them educationally before they are admitted to a regular school. Depending on the educational needs, there are also plenty of options of schooling available for children with speech and language disorders. You will learn about the details of these different types of preparatory training and educational setups in this unit.

Since learners with speech and language disorders face academic difficulties, we need to help students to learn school subjects better. Some of the ways in which we could help are providing individual attention to the learner, use additional teaching learning materials to explain a concept, simplify the content of the lesson and also using some special methods to teach different school subjects like science, maths and social science. In this unit, we shall also be discussing how such help could be provided to learners with speech and language disorders and how special teaching aids and workbooks can be prepared for these children to enhance learning.

Once you complete this programme you will become a speech and hearing technician. In this unit we shall also learn about your role in the education of children with speech and language disorders. At the end this unit also highlights on community based rehabilitation of individuals with special needs. We know that a person with communication disorder has to live in the community. Therefore, any form of rehabilitation has to keep the community in mind.

* 1. **Education of children with speech and language disorders**

For a long time in history, formal schooling or education was provided only to privileged people in the society, like people who were very rich and those who were very intelligent and skilled. Educating the underprivileged, poor people and those with disabilities was considered as a waste of time and effort, as they were thought to have poor ability for learning and understanding and also incapable of making use of what they have learnt in life to help themselves and others. Gradually things began to change. People began to realize that all individuals, rich or poor, with or without disabilities needed education to survive in the modern times. The understanding about children with disabilities improved. From the education point of view, they were not seen as children with disabilities, but as children with special needs. In other words, they were not seen as children who do not have any kind of ability, instead they were seen as children who have different kind of ability, or who need a little more special help to learn/acquire the ability.

**4.3.1 Need for special education for children with speech and language disorders**

Education is a factor that is very vital for the growth and development of any child, and more so for children with special needs. They need education like other typically developing children in order to (a) know and understand what is happening in the world around them and adjust to them, or make use of them to make life better, and (b) get vocational (job related) training and professional qualifications that will help them get good jobs which in turn will help in improving the quality of life.

Children with speech and language disorders such as mental retardation, cerebral palsy etc., often experience delayed development of speech, language and many other skills, which may result in slow learning and difficulty progressing in school. They need special training/education to overcome the impact of their disabilities. While teaching children with speech and language disorders, some special changes have to be made in the teaching-learning process in the classroom. Take for example a child with mental retardation, it is not easy for him/her to learn in school like every other typically developing child. In our schools, teachers mostly explain lessons without much use of teaching learning materials because of which this child, with special need may fail to understand the lesson. In such situations some special help has to be provided to the child, which we call as special education. The special educational supports are provided by making changes in the important aspects of the teaching-learning process, like the content to be taught, the method of teaching, the materials used to teach, and the methods for evaluating/testing what the child has learnt. In the above example of teaching a student with mental retardation, you may have to simplify the language used in his/her lesson; involve the learner in practical activities where s/he can learn by doing; and make use of multisensory teaching aids. Such special educational supports shall help the children with special needs to overcome their problems in learning and succeed in academics as well as in school life. These special educational supports can be provided to the child in a special school for children with a particular kind of disability, or even in regular schools where children with special needs learn along with other typically developing children.

**4.3.2 Benefits of educating children with special needs**

Some of you might think why we need to educate children with special needs if it is difficult for them to learn. But, as you are well aware in today’s world, formal education is very essential to survive. For children with special needs, education and training becomes more important, as:

* Appropriate/suitable education and training prepares them with abilities and skills for overcoming the difficulties created by their disability and helps them lead life as normal as possible.
* Systematic education helps children with special needs like any other typically developing children to develop good habits and disciplined life style.
* It develops awareness and understanding of the objects and happenings in the environment around them.
* They learn communication skills and socially acceptable behaviours.
* They can acquire different skills to enhance learning and improve their performance in academic areas.
* They will develop positive personality traits
* Good education also leads to good job opportunities. Good jobs in turn lead to economic self-sufficiency and prosperity.
* Educating them will help hem lead a productive and useful civic life.
* Quality, value-based education helps in developing all round development in any individual with or without disabilities, so that they can develop into self-confident, happy individuals, good citizens and social beings.

In short, providing good meaningful education to children with special needs will help them grow into confident, independent persons who are useful to themselves, their families and the society.

* 1. **Educational problems faced by children with speech and language disorders**

Educational problems may arise due to the presence of different kinds of disabilities in children like mental retardation, cerebral palsy etc. Each of these disabilities affects the development of communication skills and general functioning in these children in different ways. As a result, the problems faced by the children in education also vary depending on the type of disability. Here, we shall see how some of the major disabilities affect academic learning in children with special needs.

* + 1. **How does presence of mental retardation in children affect learning and education?**

Mental retardation is a condition which limits the understanding and reasoning ability in individuals, and as a result they may take more time to learn new things and may sometimes behave inappropriately. Presence of such problems will affect their learning ability because:

* They will be slow to learn and grasp things that are taught.
* They will have difficulty in concentrating in the learning task.
* They have difficulty in learning abstract concepts.
* They tend to have short attention span.
* They have poor memory for learnt concepts.
* They have poor ability for applying what they have learnt in new situations and solve problems. Like they might know addition of numbers, but when shopping they may not add up cost of individual items to find the total amount to be paid without help.
* They are slow to react to demands in learning environment.
* They may have difficulty in learning from natural day to day incidents. For example, after one experience of touching open fire they may not immediately realise that fire is hot and dangerous though it had hurt them. They may try to repeatedly touch it.
* They have great difficulty in higher level of academic skills like meaningful reading/writing. Also, a general backwardness in all academic related areas could be observed.
  + 1. **How does presence of other communication disorders in children affect learning and education?**

There are also other disabilities which cause communication problems like mental retardation, behavioural problems, cerebral palsy and other specific communication disabilities. Each one of them affects the academic learning in children in their own ways.

Specific behavioural problems in children like Attention Deficit Disorder (ADD) or the Attention Deficiency and Hyperactivity Disorder (ADHD) in children produce three major problems in them: inattentiveness (inability to pay attention on any task for more than a few moments); hyperactivity (overly indulgent in physical activities without any purpose); and impulsivity(quickly changing from one activity to another without any thought or reason). Children with mental retardation, autism spectrum disorders etc. can also exhibit behaviour problems. As a result children with behavioural problems may have the following problems in the classrooms and in academic learning.

* They will be easily distractible.
* They cannot concentrate on learning task.
* They will be careless in school work.
* They are very forgetful and often loose learning aids/materials.
* They do not follow instructions in learning environment.
* They have a lot of behavioural and disciplinary problems.

And all these in turn lead to underachievement in children. Even though these children may not have problems in understanding the lessons or expressing what they have understood, they may still perform poorly because they are not able to concentrate on the lessons. That is, these children will be academically achieving below their actual ability levels.

There are other specific speech or language disorders that may also affect learning and education in children. These speech and language problems may affect the ability to understand or express through verbal language, or the fluency and clarity in using verbal language. As you know, in our education system, teaching, learning and testing is mostly through language. Therefore, deficient receptive and expressive language skills lead to poor academic performance.

Problems like cerebral palsy and other problems in motor movements may also lead to speech problems and resultant academic problems. Motor movements are muscular movements that are involved in moving our legs, hands, and other body parts like tongue, lips, etc. As a result of such problems it will be difficult to move the hands, tongue or lips the way he/she wants, which means that it will be very difficult to write or speak what one wants. This in turn will affect the child’s ability to perform in academic tasks.

These academic difficulties in learners with different kinds of special needs may be overcome by adopting appropriate teaching and training methods. You shall be reading about them in detail further in this unit.

**Check Your Progress I**

1. Education is the process that helps you learn necessary \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_.
2. Children with special needs are children who are affected with some kind of \_\_\_\_\_\_\_\_\_\_.
3. Quality, value-based education helps in developing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of the child.
4. Presence of cerebral palsy might affect the \_\_\_\_\_\_\_\_\_\_ movements necessary to speak or write.
5. Children with \_\_\_\_\_\_\_\_\_\_ problems will be highly distractible in the classrooms.
   1. **Preparatory training**
      1. **Parent-Infant programme/early stimulation programmes**
      2. **Preschool training program**

Refer to the unit 4 under the course titled ‘Management of Communication Disorders- I’ for the details regarding these concepts.

* 1. **Types of educational set-ups** 
     1. **Mainstreaming: Inclusive education and integrated education**

**4.6.2 Segregation: Special day classes, special day schools and special residential schools**

Refer to the unit 4 under the course titled ‘Management of Communication Disorders- I’ for the details regarding these concepts.

**4.7 Curricular development/adaptation for children with speech and language disorders**

Many a times children with speech and language disorders find it difficult to follow the lessons taught in the class just like the rest of their classmates. This especially happens to children with speech and language disorders studying in regular schools. Such children would require the lessons to be adapted or simplified in a way that would enable them to understand better what is taught. You will learn about ways to adapt lessons in this section.

* + 1. **Individualised educational plan**

Refer to the unit 4 under the course titled ‘Management of Communication Disorders- I’ for the details regarding these concepts.

* + 1. **Teaching curricular subjects (other than language) to children with speech and language disorders**

You have already read that children with speech and language disorders would have problems in understanding and speaking. This problem would affect learning in school. The severity and the age of onset of their problem could vary from child to child. Also, the kind of training and education they would have undergone and the kind of communication problems they face would vary across children. Therefore, it is essential to find out alternate ways to help students with speech and language disorders learn school subjects better.

**Teaching methods used:** Remember that any one teaching method cannot be used with children having different types of communication problems. The information provided in this unit is more applicable to those children with speech and language disorders who are educable. They should have an adequate language level to be included into school. It is more important that the children have a comprehension level that is age appropriate or not very deviant from that of their chronological age (actual age). Just because a particular child learns better when taught in a specific way, it cannot be assumed that this method would apply to all children with communication problems. There are different ways in which school lessons can be taught to children with communication problems. You should learn to find out as to which method suits a particular child the best before using it. Also, more than one method can be used for the same child. Some of the ways in which lessons can be taught-learnt are discussed below.

1. **Adapt the content to the needs and ability of the learner:** One thing that can be done to make the lessons easier for the learner to understand is to make use of simpler vocabulary (words) and make the explanations simpler. You may use illustrations with the help of teaching aids. Many examples may be given visually, orally or in writing to make the information clear. Do not skip teaching some important part of the lesson just because some children do not understand it. Always try and teach a new, unknown lesson using information taught-learnt in the earlier, known lessons. Lessons should start with information that is simple and easy for the learner to understand.

Living things that walk on four legs are animals

Animals that live on their own in forests are wild animals

Animals that are raised by man are domestic animals

Figure 4.1: Teaching of simple information before higher-level information is taught.

When the basics are understood well, more information could be added to it, and changes could be made to them. This way the child could learn more difficult or complex information. For example, start with the simple identification of animals and build on differences between wild and domestic animals, while teaching a child in grade-I (see Figure 4.1).

1. **Provide practical learning experiences:** As mentioned earlier, learners with speech and language disorders may not be able to effectively understand all the information provided about the learning concepts in the classroom. This will slow down their ability to follow what is taught in the class. Hence, they should be provided with learning experiences in real life environments, with real objects and meaningful models. You may take them out to a park, market, zoo, railway station, etc. to teach about concepts related to these places. Things or information that cannot be shown in a real life situation could be taught through role-play (the teacher and students can act out the situation as done in a drama). This way, the children not only hear what is taught, but also get to observe and/or do things that will help them to understand and remember better.
2. **Use multi-sensory teaching-learning aids:** When teaching children they can be made to understand a lot more if teaching aids are used. When you use teaching aids children can learn by getting information by hearing, seeing and/or feeling the material used. Thus, you will be training them through their auditory, visual and tactual senses. If they are not able to get information through one sense, they can compensate and get it through another sense. Learning would be better if the children are allowed to feel and manipulate the teaching aids instead of just watching you handling them. Multi-sensory aids may not always be available. However, at all times you should make sure that the lessons taught are supported with visual information like picture charts or flow-charts (Figure 4.2).

**Animals**

Domestic animals

Wild animals

Cat

Dog

Pig

Horse

Cow

Lion

Tiger

Bear

Deer

Monkey

Figure 4.2: Example of flow-chart of classification of animals for grade-I.

1. **Include language development as part of curricular instruction:** Carry out activities to promote language comprehension and expression, for e.g., asking questions related to the lesson from the textbook and encouraging the child to answer, encouraging children to narrate the story or concept learnt in a particular lesson in the textbook, talk about their experiences, recite poems, etc. Encourage the children not just to learn by rote (i.e. learning to remember without understanding) what is being taught, but also to understand and use the information meaningfully. In addition teach new words in the context of words that are already familiar to the child. A word book can be created with the new words written in it along with their meaning and a pictorial representation, if possible. The child can be encouraged to look into the book often to retain the words in the memory. This will aid in improving the vocabulary of the child. Children who have better language abilities would be able to follow the class lessons better.

1. **Develop ability to understand the lesson through variation in questioning:** Make sure that children know that for a particular answer, different questions can be asked. The children should be taught the different ways of asking questions to get the same answer. Learning does not end with the children just being able to repeat the content you have taught while answering specific questions. The learners should be able to understand the concept/content thoroughly, so that they are able to answer any type of question asked on the topic.

***How*** is the rain formed?

Explain the formation of rain

***What*** causes rain?

Figure 4.3: Examples of different types of questions being asked for the same answer.

1. **Apply lesson to daily life situations:** The aim of educating children is not only to learn lessons to pass exams, or to help them to find jobs. The real purpose is to help them understand what they are learning and use that knowledge to make their life better. Children are usually not interested in their lessons, as they do not have any connection to their real life needs. This is more so for children with communication disorders. Because of their poor language skills they find it difficult to relate the spoken or written information they have received in class and use them in actual life situations. To make learning meaningful to these learners, teaching of a lesson should always be followed by applying what they have learnt in real life situations.
2. **Make use of integrated/combined approach to teaching:** If you look closely into the lessons taught in different subjects at school, you might note that sometimes the same information might be repeated in different forms. Like, the simple act of water vapour melting into water is taught as change of one state of matter into another in science, the cause of rain in geography, and the temperature necessary to melt ice in mathematics.

###### **Science­**

***The side of earth that faces the sun is warm***

**Geography**

***As the earth rotates day & night are formed***

**Maths**

***24 hours make 1 day***

Figure 4.4: Example of combining information about day/night from different subjects.

If the relationships between these informations are explained to the learners and the entire matter from different subjects is made into one whole lesson, it will be easier for the child with communication impairment to learn and understand. It will help save time and effort spent by the teachers. However, coordination among teachers teaching different subjects is very necessary. Such coordinated teaching is called as cross-curricular teaching. It is very useful in helping children understand the real ideas behind the lessons they learn, and relate it to their lives in a meaningful way.

1. **Involve fun in learning:** Learning in schools could be hard work for not only children with communication disorders, but for all children. This happens when the lessons are not taught well and are made boring. Lessons could be taught through play-way methods, where games like activities, music and educational toys are used. Such activities will make the children interested in the lesson and will leave a permanent impression on the child’s mind. This in turn promotes the learning in children. Joyful participation in the teaching-learning activities will help them understand and remember the lessons better.

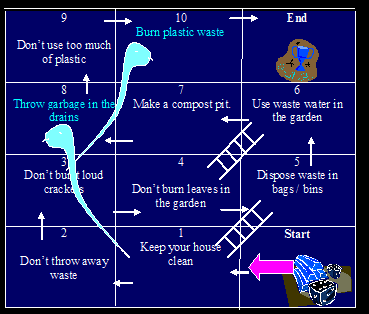


Figure 4.5: Example of a fun activity to teach how to prevent environmental pollution.

1. **Use activity based teaching and learning by doing:** Designing activities that encourage students to be actively involved and engaged in learning tasks will enhance involvement from the children which inturn will facilitate faster learning. Activities can be designed in a manner that will require the active physical participation of the child. For e.g., if an experiment is being taught, encourage the child to do the activity with all the materials.
2. **Incorporate cooperative and interactive learning strategies:** Facilitate cooperative learning among the students. Carry out learning activities that have students work together in small groups to achieve common academic goals. Also facilitate social interaction of the students with special needs with other students.
3. **Use peer tutoring strategies:** Pair the student with special needs with a peer who can act as a “note-taking” friend or “homework partner”. This peer can help focus the child’s attention, assist with activities given to the class and make copies of notes and assignments. If possible, provide copies of notes. This peer helper can also be assigned the task of reading important directions and essential information provided by the teacher. They can also be asked to assist student with special needs at break times, use of washrooms and so on. It is important to pair the student with special needs with more-abled students, because when they have finished their work, they can assist the slower child with the task.
4. **Computer assisted instruction:** Computers can be used for drill and practice in reading and arithmetic tasks. Tasks can be presented in meaningful sequences in a manner that allows the students to progress at their own rates. The computer can provide continuous and positive feedback and praise, giving students a higher sense of self-esteem. The use of animation, sound effects, and game playing situations makes drill and practice motivating.

m) **Self analysis:** Encourage self analysis of any simple work completed by the student. This will increase is awareness of the errors committed by him/her if any, and help them evaluate their performance which will inturn ‘build up’ their self esteem and interest in the subject. This can be very well tried with a subject like mathematics. Encourage read-ask yourself what you read and put it in your own words strategy as a study method. This is particularly helpful for the language subjects and other subjects.

1. **Oral outline and concept maps**: Provide an overview of the lesson to be taught before the actual teaching begins. Concept map is a technique for visualizing the relationship between different concepts in a graphical format. Concepts are connected with arrows showing relationships.

Figure 4.6: Map to teach the concept of ‘leaf’.

1. **Carry out activities to improve cognitive skills:** Activities to build attention span, memory and eye hand coordination will benefit these students. For e.g., collecting books from all the student in the class and giving it to the teacher, memorizing a few lines of a poem or story and saying it in front of the class etc. Teach the use of mnemonic devices such as categorization, association, acronyms, diagrams etc.
2. **Provide structure to the routine:** Students really benefit from structuring the routine. Write the agenda on the board each day; this way the student would know what was going to come next so that they could prepare. Providing students with a sample chart for planning their study time at home, will also help them in structuring the activities done at home.
3. **Use intensive drill and practice:** Frequent repetition of a concept will help the student to learn the concepts better and remember it better. Remember that after just one exposure to an event, a learner with speech and language disorders may not remember everything that has been taught. This is especially true for those who are mentally challenged. Repetition can also be done by asking each student in the group to discuss what they saw. Also provide more time and practice to master a task. Home based assignments can be given for greater practice of a concept.
4. **Use of strategies such as modelling, shaping, task analysis and prompting:**

**Modelling:** Showing how, or demonstrating, so that the student can imitate and learn

**Shaping:** Teaching the simplified version of the total task and gradually increasing the complexity.

**Task analysis:** Breaking the task into small steps and teaching them one after the other.

**Prompting and fading:** Assisting the student verbally or physically (e.g., hand over hand, gesturing, pointing) and gradually fading or withdrawing the assistance.

**4.7.3 Some additional tips to promote learning**

In addition to the teaching methods described above, here are a few tips that would facilitate learning in these children with speech and language disorders.

* Seat the student in front of the teacher for all instruction, away from distraction.
* Monitor the student's comprehension during instruction. Simple gestures, such as a hand on the student’s shoulder, tapping their desk, or calling out the student’s name every 8 to 10 minutes can be a helpful reminder to focus during listening periods.
* To reduce task avoidance, use random checks to monitor behaviours.
* Provide/allow them to use special chair and table, especially for students with cerebral palsy (CP) since it will give them extra support at different levels of the body such as head, feet, back, hands etc. This will help them maintain better posture which will inturn facilitate their writing skills. This would also help them feel comfortable and secure, as there would be no danger of falling out of the chair. However some students with CP might find sitting in a desk to be uncomfortable. Hence provide different opportunities to try out different positions, like sitting on the floor etc. Moreover students with CP need to change positions often to prevent muscle tension and pain.
* To prevent books or sheets of paper from sliding about on the table, stick them to the desk with tape, or fasten with elastic or some heavy objects. A non-slip pad which prevents books or papers from sliding may be of help.
* Provide writing utensils such as pencils, crayons or chalks, which are quite chunky and easy to hold, and not easily breakable.
* Encourage the use of pencil grippers for better grip during writing.
* Place writing aids on the table in such a way that they are accessible for the student without assistance.
* Focus more on contentthan on grammar when assessing the writing of these students.
* If the student is able to write, provide extra time and do not insist on the quality of writing as long as it is legible.
* Let the letters and numbers be clear and large in size while writing on the board.
* Check the mode of communication of the student; some may use a device or a communication book. Encourage the student to use the same in the classroom to communicate his needs.
* Converse face to face and maintain eye contact with the student while conversing with him/her.
* Give more time to the student in order to learn a task and to elicit better performance.Also give the students time to respond to questions asked.
* Be clear and brief while teaching in the class.
* Give directions one or two steps at a time. Allow time for the student to process the information. Ask the student to repeat the instructions, whenever possible.
* Provide plenty of praise and encouragement when the student is successful.
* Ignore undesirable behaviour if the student is doing it to get your attention. Provide praise and attention when the student’s behaviour is acceptable.
* Treat them as individuals with needs and interests similar to the other students of his/her age. Treat them similar to their peers and instill the feeling of respect amongst them.

Teaching simple skills to all staff and peer groups for helping students with special needs in proper use of aids such as crutches, wheel chairs, prosthesis, communication boards, hearing aids etc., and creating awareness about students with disability, their needs, rights and the role of other students, teachers and staff would go a long way in facilitating inclusive education.

**4.7.4 Adaptations made while teaching specific curricular subjects**

Refer to the unit 4 under the course titled ‘Management of Communication Disorders- I’ for the details regarding these concepts.

**4.8 Preparation and/ use of teaching aids and language work book**

* + 1. **Need and uses of teaching aids**
    2. **Types of teaching aids**
    3. **Language workbooks**
    4. **Contents of language workbooks**
    5. **Uses of language workbooks**
    6. **Disadvantages of workbook activities in teaching language**
    7. **Linking teaching aids and language workbooks**

Refer to the unit 4 under the course titled ‘Management of Communication Disorders- I’ for the details regarding these concepts.

**Check your progress II**

1. Breaking the task into small steps and teaching them one after the other is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_.
2. A technique used to visualize the relationship between different concepts in a graphical format is called \_\_\_\_\_\_\_\_\_\_\_.
3. Teaching by providing information through hearing, seeing and/or feeling is called \_\_\_\_\_\_\_\_\_\_.
4. Praise and attention should be provided when the child’s behaviour is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Children with cerebral palsy may require \_\_\_\_\_\_\_\_\_\_\_\_\_ furniture.

**4.9 Role of speech and hearing technician in education of children with speech and language disorders in educational settings**

Irrespective of whether a speech and hearing technician is working in a facility for children with mental retardation, hearing impairment or cerebral palsy, his/her role is similar. The main role of the technician is to serve as a helper/assistant for speech and hearing professionals. Speech-language pathologists and special educators work in regular school setups to provide speech-language and educational services respectively to the students enrolled in the school. With guidance from the speech and hearing professionals they would carry out the following:

* + Assisting in identifying children with special needs
  + Planning for the educational training for children with special needs
  + Work in co-ordination with special educators in imparting educational training to children with speech and language disorders
  + Provide support to regular school teachers to help children with communication problems cope in a regular school
  + Prepare the teaching aids and language workbooks for these children
  + Maintain the relevant documents pertaining to the educational intervention of these children
  + Mediate between the professionals and the parents and ensure parental participation in imparting educational training for these children
* Educate the school teachers on handling children with special needs in the classroom

**4.10 Community based rehabilitation (CBR)**

Persons with disabilities (PWD) should be provided with equal opportunities and this would be possible if the community they live in are made aware of their strengths and the different challenges that these individuals face. In the Indian context, this becomes a greater necessity because most of the services for the disabled are restricted to the urban areas and are not available in the rural areas and in India more than 70% of the population lives in rural areas (villages). Hence, it becomes important to involve the community in the rehabilitation of PWD. A community involves a group of individuals who live together in a specific area or region. People in a community should work together with cooperation for all-round development of individuals who live in the community. If a community is made aware of the needs and services that are available for the PWD, they can contribute towards the welfare of PWD. They have to be made aware of the fact that PWD, if given the opportunity and a little support, can lead a productive and meaningful life. Hence, the concept of community based rehabilitation (CBR) was put forth.

In CBR the knowledge and skills for training PWD are transferred to adults with disability themselves, to their families, and to the community members. CBR is a process to bring about a transformation in the community to enable the community members to have a better understanding of the disability services and to improve the overall quality of life of PWD. The ultimate aim of CBR is to integrate PWD into the community they live. CBR is characterized by the active role of the following:

* + Persons with disabilities
  + Their families
  + Their community
  + The society at large

The main advantage of CBR is that a person is available in the community to work with PWD and their families in rehabilitation activities.

Adult with disability

Knowledge and skills

His/her family members

Community and society

Figure 4.7: Diagrammatic representation of CBR concept.

There is also a need to build barrier free environment for PWD. The houses, schools, colleges, cinema theaters, railway platforms, public transport systems etc. need to be designed in such a way that the PWD can access these services with minimum difficulty. The CBR promotes the removal of physical barriers for PWD and works with them and their families in rehabilitation. CBR program ensures (a) provision for school services for children with disability, and job training for persons with disability, (b) provision for financial and physical assistance etc. to families of the persons with disability, and (c) referral services.

Community also plays a major role in prevention of disability. Therefore, building-up community awareness is essential in order to achieve the best results in prevention activities. There are different levels with which community awareness on disability may be established. Also, there are different key personnel in the community who can also help in community awareness programs. CBR is highly creative and can be tailor-made depending on the nature of community. Speech and Hearing Technician/Assistant (SHT/A) should be flexible and creative. S/he should make every effort towards enhancing community awareness on disability related issues.

The assistance of a SHT/A is essential for providing services at the community level. Apart from creating community awareness SHT/A also becomes responsible to screen the population, identify persons with disability, plan and offer the required services that are tailor- made to each and every individual with special needs and appraise them on the various schemes and welfare measures offered by the Government. In addition, SHT/A is also expected to make home and school visits so that the services are offered at the doorstep of the person with special needs.

Thus, in summary it can be stated that a group of individuals make up a society. There are several responsibilities and commitments of each individual towards the society. To provide better health care and rehabilitation services to the members of society, professional and personnel in the field of speech, language and hearing are trained. Individuals who are differently abled (not disabled) are not able to carry out certain specific activities for daily living. In order for them to live in the society and to make them independent, professionals and personnel need to understand their strengths and weaknesses and work towards the welfare of these individuals.

**4.11 Let us sum up**

Education is the process of acquiring knowledge and skills in life. Presence of disabilities in some children makes education difficult for them. We need to use special methods and materials to teach them. Some of the key points discussed in the unit have been listed below:

* After you complete this course, your primary role will be serving as assistants and help speech and hearing professionals in their work.
* If children with communication disorders are to succeed in training and education, active involvement of parents and caregivers is essential.
* If a community is made aware of the needs and services that are available for the PWD, they can contribute towards the welfare of PWD.
  1. **Answer keys to Check Your Progress Exercises**

**Answer keys to check your progress I**

1. Knowledge and skills
2. Disability
3. All round development
4. Motor / Muscular
5. Behavioural

**Answer keys to check your progress II**

1. Task analysis

2. Concept map

3. Multi-sensory approach

4. Acceptable

5. Special

* 1. **Questions for Self Study**

1. Why is education necessary for children with special needs?
2. How does having mental retardation affect a child’s education?
3. Why are multisensory teaching-learning aids necessary for children with communication disorders?
4. Why is hands-on learning important to children with communication disorders?
5. Describe any five strategies to teach children with speech and language disorders.
6. Explain the utility of computers in teaching children with speech and language disorders.
7. Draw a concept map to teach the concept of ‘pollution’.
8. Explain the significance of peer tutoring strategies.
9. Explain the role of a speech-language technician in the educational training of children with speech and language disorders
10. Explain community based rehabilitation and highlight its importance with reference to the Indian context.
    1. **Suggested Readings**

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**Unit 5: General Issues in Management**

**5.1 Objectives**

**5.2 Introduction**

**5.3 Prevention and early identification of communication disorders**

5.3.1 Primary prevention

5.3.2 Secondary prevention

5.3.3 Tertiary prevention

5.3.4 Role of speech and hearing technician in prevention

5.3.5 High risk register

**5.4 Record keeping**

5.4.1 Purpose of documents

5.4.2 Types of documents

5.4.3 Ethics and Acts related to documentation

5.4.4 Clinical audit

**5.5 Referrals**

**5.6 Home based training**

**5.7 Parent guidance and counselling**

* 1. **Let us sum up**
  2. **Answer keys to check your progress exercises**

**5.10 Questions for self study**

**5.11 Suggested readings**

5**.1 Objectives**

After going through this unit you will be able to write on:

* + Primary, secondary and tertiary prevention of disabilities
  + The role of a SHT/A in disability prevention
  + High risk register
  + Record keeping process and its purpose
  + Types of documents used in the area of disability
  + Referral making and its significance
  + Home based training and its purpose
  + Need for counselling the parents/caregivers

**5.2 Introduction**

This unit addresses the general issues in management. The first issue to be addressed is the prevention and early identification of communication disorders. Preventing speech, language and communication disorders is very important. The old dictum “prevention is better than cure” still holds well in the modern day of the world. Prevention is usually defined at three levels: primary, secondary and tertiary prevention. In this unit we shall learn the different aspects and levels of disability prevention.

The next issue addressed is record keeping. Record keeping or documentation facilitates the systematicity with which the rehabilitation is delivered. Documentation is a procedure in which records or documents related to a particular subject/issue is preserved for inter-disciplinary interactions and future reference. For example, record of date of birth of a child is preserved in a hospital, which can be accessed for a specific purpose. Similarly, there are many other types of medical records and school records. A speech and hearing technician/assistant (SHA/T) should be aware of the necessity of preserving records, access it periodically depending on the need and produce it for verification when need arises. Documentation of information facilitates interdisciplinary communication, helps to monitor the progress of a given individual in addition to enhancing our knowledge. Therefore, in this unit, you will learn about the different types of documentation and records, procedure to maintain the records, its access through manual or digital mode, and to code it for future reference. You will also appreciate that you should learn to respect, safeguard and maintain confidentiality of documents.

The third issue addressed in this unit is about making referrals to different professionals. The field of speech and hearing necessitates interaction of a multidisciplinary team of consultants from both medical and the paramedical fields. During the intervention process, you may feel that you need to send the clients to another professional to get more detailed information on specific aspects. This process is called referral making and helps in the intervention process. You will learn about the referral making process and the significance of making referrals.

The last two issues covered in this unit are home based training, parent counselling and guidance. These are integral components of the intervention process. Family involvement in the intervention process is crucial as it brings about faster progress in the client. They need to be guided to carry out the training at home or in any natural context outside the therapy situation. Moreover, counselling the client, parents and family members is also crucial for the success of any intervention program. This is because many a times, the client or his/her family members may have negative feelings and emotions which may become a huge barrier in the intervention process. Hence, these concerns cannot be sidelined and need to be addressed during the intevention. Thus, in this unit you will learn about how to guide the parents/caregivers and other family members in order to make them an active member in the rehabilitation team.

**5.3 Prevention and early identification of communication disorders**

Any person would desire for a world free of disability because disability in itself brings along with it several problems and it becomes a burden for the family and the entire community. Some of you must have come across individuals with different disabilities and seen their struggles and challenges closely. The same applies to persons with communication disorders too. Hence, preventing communication disorders becomes important. You must have heard the saying ‘prevention is better than cure’. Consequently several efforts have been made by the Government towards preventing disabilities because the cost involved in rehabilitation of persons with disability (PWD) is much more than the cost involved in prevention. Prevention can occur at different levels.

**5.3.1 Primary prevention**

Primary prevention can be defined as action taken to avoid the occurrence of an impairment by tackling basic causes. It is the action taken prior to the onset of the disorder, which removes the possibility that a disease/disability will occur. This can be achieved through measures designed to promote general health, well-being and quality of life of the people or by specific protective measures. It includes the concept of “positive health”, a concept that encourages achievement and maintenance of an “acceptable level of health that will enable every individual to lead a socially and economically productive life. It concerns an individual’s attitude towards life and health and the initiative he takes for positive and responsible measures for himself, his family and the community. Common examples of primary preventive measures are:

* Proper prenatal, natal and postnatal care to prevent child being born with disability
* Avoiding consanguineous marriages
* Prevention of accidents
* Proper immunization to prevent diseases like polio, MMR, Rubella

**5.3.2 Secondary prevention**

It can be defined as the action which stops the progress of the disorder at its incipient stage and prevents complications. The specific actions taken are early screening and detection of the disorder, early diagnosis and adequate treatment, for e.g., treatment of a communication disorder in its early stages through early intervention. Early detection and treatment of the disorder prevents secondary complications and long term disability.

**5.3.3 Tertiary prevention**

When the disease process has advanced beyond its early stages it is still possible to achieve prevention by tertiary prevention. It signifies intervention in the late pathogenesis phase. Tertiary prevention can be defined as all measures available to reduce or limit impairments and disabilities and minimize suffering caused by existing disability. The tertiary phase prevention is also called rehabilitation, which includes physical, psychosocial and vocational measures taken to restore the patient back to or near normal condition. The three levels of prevention has been diagrammatically been represented in the figure below:

Tertiary prevention for people with health problem

**Reduce impairment: Rehabilitation and improve quality of life**

Secondary prevention for people at risk for a health problem

**Action taken to stop the progress of the disease: early identification & intervention**

Primary prevention for well population

**Action taken before the onset of the disease: Aims at health promotion and addressing risk factors**

Figure 5.1: Diagrammatic representation of different levels of prevention.

**Prevention of mental retardation**

Let us see how the primary, secondary and tertiary prevention can be carried out in a very common condition such as mental retardation. Since many factors are involved in the etiology of intellectual deficiency, preventive measures are also diverse. The three types of activities of primary, secondary and tertiary prevention are presented below.

**Primary prevention:** Techniques for primary prevention of known pathological conditions leading to mental retardation are by no means complete. However, quite a few pathological conditions are can be prevented.

**Public education:** A preventive approach to mental retardation can succeed only in an educated, enlightened community. Public education is of particular importance in enforcing preventive measures against mental retardation. The public has to be taught that mental retardation is a symptom producing a handicap and not a curse or visitation. The persons with mental retardation have feelings of love, hate, anger and compassion, and have a need for affection and a sense belonging like all of us. As citizens, they have fundamental rights which include the best that medicine and education have to offer, and the right to the pursuit of happiness. Public education has to proceed on several levels.

* Dissemination of the available knowledge through public media like newspapers, radio, television, cinema screens, etc.
* To bring together the parents and interested public to mobilize their efforts to channelize funds and services.
* Strengthening at national level to coordinate and disseminate information to those who are interested in the field of mental retardation.

**Preventive medical measures:** Importance of prenatal, natal, and postnatal care is a recognized cornerstone in all efforts to prevent mental retardation. Chromosomal studies have shown that the age of the mother is correlated with the incidence of mental retardation. This preventive measure as such is not an expensive one; it needs proper counseling and education of the parents and this is the need of the hour. This would imply that raising the family might be completed around the maternal age of 30 or so with appropriate spacing between one or two children. Parents need to be dissuaded from having children at late maternal age; at younger maternal age also the incidence of mental retardation is quite high. Therefore, the early pregnancy should also be avoided.

**Maternal and child health services:** Some of the problems in the existing Maternal Child Health (MCH) services are their location, inadequate supplies and poor support by a referral system. All these need urgent correction. Presently, large number of paramedical personnel are working in the field but they are not able to serve the rural population as they are forming a link with specialized institutions in the cities. Though such a referral system has been much talked of, there is very little effort to increase the confidence of the rural population in the peripheral health centers. It has been reported that more than half of the women have hemoglobin of less than 11g/100ml and significant number have vitamin deficiencies.

**Immunization programme:** The increased use of immunization techniques in prenatal, natal and post natal period is emphasized. Immunization for childhood illnesses such as measles, rubella, mumps, and whooping cough, which can have neurological consequences, would also have a significant impact in reducing the incidence of these and consequent pathological conditions.

**Rh factor:** If the mother’s Rh factor is negative and that of the child is positive, immature blood cells are produced in the infant, sometimes causing jaundice leading to damage to the brain. Replacement of the baby’s blood can be done after careful blood tests and grouping. The RH negative mother should always deliver a child in a hospital where there are facilities for immediate exchange of transfusion, under careful supervision.

**Irradiation:** X-rays during pregnancy have harmful effect on the chromosomes of the mother and the baby resulting in injury or damage to the tiny brain cells. A pregnant mother’s abdomen should never be screened, particularly in the first trimester. Screening for inborn errors of metabolism and chromosomal abnormalities should be carried out in suspected cases after birth as well as at the prenatal stage. Abortion should be permitted after proper diagnosis and approval of at least two doctors if the prenatal test shows a disorder associated with mental retardation.

**Genetic counseling:** Genetic counseling, which usually involves the question of the desirability of future offspring by the parents, siblings and sometimes more distant relatives, can be done by private practitioners and staff physicians in clinics and hospitals. Genetic counseling has to be preceded by an exact diagnosis, which may require biochemical and cytogenic studies. With some expectations, conditions known to be caused by dominant recessive genes are quite predictable, in that children of affected person have a 1 in 2 chance of inheriting disorder. Linked with this, is the possibility of parental detection of Down’s syndrome through amniocentesis. If the diagnosis is positive, termination of pregnancy would be desirable. Similarly, rubella vaccinations might have a significant impact in reducing the number of severely impaired children who would be born, with hearing loss, mental retardation, cerebral palsy, etc.

**Consanguinity:** Related to genetic counseling is the problem of consanguineous marriages that are common in some communities in India. Parental consanguinity often produces mental retardation in the offspring. Counseling of individuals at present in certain communities could be started which describe the potential hazards of this traditionally sanctioned pattern of marital relationships between close relatives. The nearer the biological relationship of the parents, the higher is the risk for their children. The need in this area is for public education and legislation.

**Malnutrition:** Malnutrition, whether during the reproductive cycle or after birth, frequently impairs intelligence by causing irreversible effect upon brain growth and behavior. Malnutrition may not always be due to deficiency of food. Number of cultural influences may contribute to it. For example, habits of eating polished rice or avoiding intake of meat, fish and eggs on religious grounds etc. Fasting prescribed by certain religions, if prolonged, weakens the resistance. Personal food habits like boiled and fried vegetables with enough spices and chilly also play an important role in the development of malnutrition. Protective foods like milk, fruits, butter, fish, meat, eggs are costly items and may be out of reach for poor people. There would be very little malnutrition if all available food in the country could be equitably disturbed in accordance with physical needs.

**Secondary prevention**

**a) Early identification and treatment of culturally deprived children:** Cultural deprivation consists of a complex set of conditions like lack of stimulating environment, lack of verbal communication with adults, poor sensory experience and low socio economic status giving rise to poverty and deleterious environmental factors. Cultural deprivation is such a global and undifferentiated concept that it invites attention to identify the nature of the deficit and to see where and when the infant of the poor class parents is most likely to be experimentally deprived. One of the most common features of the poverty stricken family in India is that of overcrowding. Many persons live in little spaces and they have larger family. In such a crowded atmosphere, the activities of the child are very limited. Moreover, the child gets very little stimulation from the adults who are poor models of spoken language. Since the play material and the space are highly limited, opportunities to learn language are markedly reduced. Thus, child in a poor crowded family, beyond his first year, has very little opportunity to develop at an optimal rate, in the direction demanded for later adaptation in school and society. Hence, it is essential to identify these children early and provide them with ample opportunities for developing different skills.

**b) Early identification and handling of children with isolated handicaps:** A large number of infants and children have isolated sensory, motor, academic, behavioral, and intellectual difficulties. By some estimates the number comes to about 5 percent of the general school population. Etiology varies from hereditary factors to mild brain damage which could be due to some prenatal, natal, or postnatal difficulties.

The children may have sensory deficits such as deafness and blindness. These deficits can be reduced to a certain extent through the intensive use of the remaining normal sensory pathways. This enables the developmental and socialization process to progress along normal lines by facilitating communication between the child and his environment.

Deficiency in motor area may manifest itself as general clumsiness and poor coordination, which interfere with the mastery of motor skills such as writing. Early identification of this handicap in a younger child and training can help children overcome these motor issues. Isolated scholastic difficulties involve number concepts, reading, writing, or abstract thinking. Help in these areas, by way of small groups or individual tutoring, may make it possible for the child to keep up with his age mates.

Behavioural problems such as distractibility and hyperactivity due to mild brain damage or due to unspecified constitutional factors present stumbling blocks to learning and may serve as the starting point of the child-parent and child-teacher conflict. Lesser number of children in classrooms allow the teacher more flexibility and a more liberal behavior policy than is possible in a regular classroom.

**Tertiary prevention:** This involves providing rehabilitation to children with mental retardation in all domains such as educational and vocational and thereby improving their quality of life.

**5.3.4 Role of a speech and hearing technician/assistant (SHT/A) in prevention**

**Primary prevention:** Relates to all activities aimed at "reducing the incidence of a disease within a population and therefore reducing, whenever possible, the risks of new cases". Applied to speech and language this means mainly information and health education, as well as training of all those professionals dealing with a specific population.

**Secondary prevention:** Relates to all activities aimed at "reducing the prevalence of disease and therefore reducing the time of evolution". Applied to Speech and Language, this means mainly screening and early detection of delays or disorders. Early detection and treatment may lead to the elimination of the disorder or to the reduction of the disorder’s progress.

1. **Information and health education**

* Personnel should provide information about communication, speech and language development and their disorders in educational and health settings to various professionals. This can be done as a part of undergraduate education programmes and continuing professional development programmes for doctors, nurses, child welfare workers, social workers, teachers, anganwadi workers and other therapists. Themes could include, for example, normal language development in children; role of hearing, interaction and stimulation; early detection of problems and warning signs; spoken and written language disorders in children, adults and the elderly; vocal hygiene; referral process, collaborative practice and the importance of early intervention for various disorders.
* They should provide information on the above mentioned themes and advice to parents and families, individually or in a group when necessary through meetings of groups and associations.
* Public education can also be carried out through the media about various themes mentioned above.
* They should provide evidence based information on speech and language disorders and their prevention, detection and management in the programmes of education and training of educational workers, health - and social care workers.
* They should increase public and professional awareness of how communication problems may lead to or relate to other problems for the individual in his social, emotional and educational development and well being and that of his family.
* They should conduct frequent public information campaigns on speech and language assessment and therapy services and how to access help, improve service provision and information in public health and education.

1. **Advice and guidance to parents and early education**

Advice and guidance to parents and early education are within the realm of the personnel. There are various strategies for intervention: prenatal preventive work with prospective/expectant parents, regular check-ups for at-risk children, training programs for parents of children with specific problems, advice to teachers and other therapists, creation of parents groups, information on home-care, referral to other professionals when needed.

**Objectives for development:** Appropriate training/orientation discussions of other professionals to recognize warning signals have to be provided. Each individual with communication problemshould have easy access to a SLP and speech and language therapy.

1. **Early screening of speech and language disorders**

**Screening:** Generally personnel share this competence with other professionals, such as doctors, teachers, nursery nurses, health visitors, psychologists. Several screening tools have been created but they are not necessarily standardized. It is important to distinguish screening, detecting and diagnosing. Screening is the presumptive identification of unrecognized disease or defect by the application of procedures, which can be applied rapidly; screening tests sort out apparently well persons who may have a disease or disorder from those who probably do not.

**Objectives for development:** Development and use of standardized screening instruments and programs for the training of relevant other professionals in the screening of communication disorders. Early screening should be available for every child as early as possible. Further screening should occur during the early years. Screening of children may be conducted by appropriate trained professionals such as Health Visitors/Public Health nurses/pediatricians/anganwadi workers.   
Diagnosis is carried out by SLPs. They can assist in regular and scientifically conducted data collections of screening results, in order to prepare epidemiological studies/compilations.

**5.3.5 High Risk Registers (HRR) (AIISH, Mysore)**

High-risk registers (HRR) are the questionnaires for both non-medical and medical professionals for identifying the communication disorders in infants. These are mainly prepared to identify infants who are at risk for having hearing impairment, the same can be used for other disorders also as most of the factors are also responsible for communication disorders.

These HRRs are classified into two categories, that is, one for medical professionals and another one is for non-medical professionals. In each of these, there are two separate parts, which were classified based on age i.e., birth to 28 days and 29 days to 3 years.

1. ***High Risk* Register to be used by non-medical persons**

**Birth to 28 days**

1. Are the parents of the child blood relatives?
2. Did any one in the child’s family have hearing loss in early childhood?
3. Did the child’s mother have any serious illness during pregnancy?
4. Did the child’s mother take any medicines for illness during pregnancy?
5. Was the baby born before the due date given by the doctor, before 37 weeks from menstrual period?
6. Did the child appear yellow or blue at the birth?
7. Did the child cry immediately after the birth?
8. Was the child’s weight low at birth (less than 1.5 kg)?
9. Was there any defect of head and face when the child was born?
10. Was the child kept in hospital for treatment after birth?

**29 days to 3 years**

1. Was there parental or caregiver concern regarding the child’s hearing, speech or developmental milestones?
2. Did anyone in the child’s family have hearing loss in early childhood?
3. Did the child’s mother have any infections during pregnancy?
4. Was there any defect of the head and face when the child was born?
5. Did the child’s skin appear yellow?
6. Did the child have brain fever, measles or mumps?
7. Did the child have head injury associated with loss of consciousness, skull fracture, bleeding or discharge from ear following injury?
8. Did the child have ear discharge for at least 3 months?
9. **HRR to be used by medical professionals**

**Birth to 28 days**

1. Was the marriage of the child’s parents consanguineous?
2. Was there any family history of permanent early childhood sensori-neural hearing loss?
3. Did the child’s mother have any conditions during pregnancy such as measles, mumps, chickenpox, herpes, syphilis, cyto-megalovirus, rubella or toxoplasmosis?
4. Was the child’s mother hospitalized for long prior to delivery of the child?
5. Did the child’s mother take any ototoxic medication for illness during pregnancy?
6. Was the child born prematurely?
7. Was the child’s birth cry delayed?
8. Did the child’s weight less than 1500 grams at birth?
9. Did the child have hyperbilirubinemia at a serum level requiring exchange transfusion soon after birth?
10. Did the child have Apgar scores of 0 - 4 at 1 minute or 0-6 at 5 minutes?
11. Was there any craniofacial anomalies including those structural abnormalities of the pinna and ear canal?

**29 days to 3 years**

1. Was there parental or caregiver concern regarding the child’s hearing, speech or developmental milestones?
2. Was there any family history of permanent childhood sensorineural hearing loss?
3. Did the child’s mother have any infections such as herpes, syphilis, cytomegalovirus, rubella or toxoplasmosis during pregnancy?
4. Did the child have any craniofacial anomalies, including those with structural abnormalities of the pinna and ear canal?
5. Did the child have hyperbilirubinemia at serum level requiring exchanging transfusion soon after birth?
6. Did the child have any of the conditions known to be associated with sensori-neural hearing loss such as mumps, measles, bacterial meningitis, viral encephalitis or labyrinthitis?
7. Did the child have any trauma associated with loss of consciousness, skull fracture, bleeding or discharge from ear following trauma?
8. Did the child have recurrent or persistent otitis media with middle ear effusion for at least 3 months?

Note: If the answer to any of these questions is ‘yes’, get the child’s hearing evaluated by a qualified audiologist.

**5.4 Record Keeping**

Keeping records of clients who have reported to you is essential. You should assist the SLP/Audiologist in making records as well as maintaining or preserving them. The records would contain information regarding a given person’s/client’s status and performance. It could include the demographic details of the client, the assessment details of the client including tests administered and their results, the goals and activities taken for therapy, the progress seen in the client etc. Ideally it is important to put all this information into a file so that the same file can be used to store all the subsequent records. Alternately all this information can be stored in the computer too in a systematic manner. All these documents are referred to as professional documents. These documents or records should be maintained and preserved by you. This is to promote accountability for the client’s diagnosis and the treatment process. Let us see what these documents are, what is their purpose and how do we maintain them.

Professional documents are formal reports written in an appropriate style and used with the purpose of summarizing and interpreting information. The records should be written in such a way that the style is:

* acceptable to the reader
* correct with information
* appropriate for the purpose to which it is written

**5.4.1 Purpose of documents**

The professional documents help in our day-to-day work with persons with special needs. In addition, long-term documentation of records also helps in estimating the following:

1. Incidence and prevalence of a specific disorder
2. Type of the disorder and its mode of distribution
3. Severity of a disorder
4. Socio-economic impact of specific disorders

Further, it also helps to:

1. Frame policies for persons with disability
2. Establish data-base of activities at a national level
3. Carry out research related work

**5.4.2 Types of documents**

The professional documents are broadly divided into demographic records and clinical records.

**a) Demographic records:** Demographic records are those records that give information about a person’s identity with reference to age, gender, education, contact address, and family details. This serves as an important document to identify a given individual and categorize the records for various purposes. Records of this type are very useful in drawing plans for a specific community or society. Table 5.2 shows a sample demographic record of a community ‘X’.

Table 5.2: Community ‘X’ with ‘n’ number of population.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Name** | **Age/Gender** | **Education** | **SES\*** | **Address** | **Type of disability** |
| X1 | AA | 2/M | NA | 2 |  | HI |
| X2 | BB | 50/F | NIL | 1 |  | VI |
| X3 | CC | 10/F | 3rd Grade | 2 |  | OI |
| X5 | DD | 39/M | 10th Pass | 3 |  | NIL |
| X5 | EE | 68/F | NIL | 1 |  | HI |

\* SES= Socio-Economic Status denoted as 1=Lower SES; 2=Middle SES; 3=Upper SES

**b) Clinical records:** Clinical records are those records that give us information on the nature of the problem, its onset, and progression and treatment aspects. The most widely accepted clinical record formats are the Problem Oriented Record (POR) and the Subjective Objective Assessment Plan (SOAP).

Table 5.3: Sample illustration of POR.

|  |  |  |
| --- | --- | --- |
| Person ID No: | Date of registration: |  |
| Name: | Age/Gender: | Date of birth: |
| Education: | Address: | Tel No/Mobile/E mail: |
| Source of referral: | Contact No. of referral source: |  |
| Brief Personal history |  | |
| Brief description of the complaint |  | |
| Onset/progress/severity as given by the person |  | |
| Associated medical/psychological problems, if any |  | |
| Evaluations recommended based on the complaint:  Further recommendations for special tests based on findings |  | |
| Provisional diagnosis |  | |
| Recommendations |  | |
| Name of the professional and signature with seal |  | |

POR is the standard style for clinical records that is considered very useful for accountability. This is demanded by courts, government agencies and insurance companies. The competent authorities should duly sign POR if it is to be considered as a valid document. Table 5.3 gives a sample illustration of POR.

SOAP is widely accepted for planning treatment and is an abbreviation for the following

S = Subjective statement of the person

O = Objective findings of the professional

A = Assessment of the subjective and objective findings

P = Plan of Action

The following table depicts the components included under ‘SOAP’.

Table 5.4: Components included under ‘SOAP’.

|  |  |  |  |
| --- | --- | --- | --- |
| **S = Subjective statement of the person** | **O = Objective findings of the professional** | **A = Assessment of the subjective and objective findings** | **P = Plan of Action** |
| Brief Personal history | Evaluations recommended based on the complaint | Provisional diagnosis | Goals to be set for Observed behavior No. 1 and 2 (For example, delayed speech and misarticulation) |
| Brief description of the complaint | Further recommendations for special tests based on findings | Recommendations: Observation therapy/Trial therapy/Re-evaluation after one week |  |
| Onset/progress/severity as given by the person |  |  |  |
| Associated medical/psychological problems, if any |  |  |  |

POR and SOAP are the two main types of documents that are essential for accountability. In addition, ‘informed consent forms’ given by the persons also need to be preserved for ethical purposes. The client’s audio vedio samples recorded during the assessment and treatment process also should be preserved.

**Maintenance of documents:** Administrative and clinical documents are treated with respect. They are generally coded either by color, number or alphabets for easy access. They are classified, categorized and maintained in a specific way so that it can be easily accessed on everyday basis. Documents can be maintained manually in files, or digitized with the help of computers so that there can be wide access to database.

**Classification and indexing documents:** You may encounter a large number of individuals with special needs. Therefore, it is necessary to compile and classify the information of specific individuals in a systematic way so that the records can be accessed with ease. The information can be classified based on many characteristics such as region, disability, age, education, gender, and so on. Once the information is classified, it is necessary to index (code) the records for easy maintenance. The coding can be planned either in colors, numbers, alphabets or a combination of any of the above. For example, a pink color file with serial number additionally coded with alphabets to indicate the year will facilitate easy access to document. However, these codes need to be a common language among those who are in the community service.

**5.4.3 Ethics and Acts related to documentation**

As a SHT/A, you are also bound by rules that apply to other qualified professionals. There are certain ethical practices (rules and regulations that direct a professional to offer service within certain boundary/limits permissible as per codes) that need to be followed by the SHT/A. Strict practice of ethics also facilitates non-violation of Acts related to documentation. Data protection Act and Right to Information Act are a few of the Acts that protect a person and also encourages a professional to be accountable to whatever service that is rendered by him. Considering all these issues, documentation of records becomes a very pertinent matter in community service.

**Freedom of information:** As per the Right to Information Act (RTI-2005) of the Government of India, every citizen has the right to know information. This also applies to clinical records and documents. Therefore, you should prepare the reports with greatest care. Caution should be exercised in the use of terms that may damage a person’s dignity/honor. The records should be made available to the clients on request.

**Data Protection Act:** The Government of India’s Data Protection Act emphasizes that at no point of time the data should be shared with anybody for undue reasons with other professionals unless and until there is agreement that the data would be used only for enhancing the services for persons with special needs through research and other similar activities.

**5.4.4 Clinical audit**

A clinical audit involves systematically looking at the procedures used for diagnosis, care and treatment, examining how associated sources are used and investigating the effect of professional services on the outcome and quality of life for the persons with special needs. Clinical audit can be used to examine all aspects from assessment through outcomes. It provides a method for systematically reflecting on and reviewing practice.

**Objectives of clinical audit**

**To identify and promote good practices**: This is done in order to facilitate adequate services to the community. A team nominated for clinical audit may make a survey of around 100 documents related to community service. If the clinical audit team suspects the adequacy of services in any given number of documents, the team may recommend for better practicing strategy in order to meet the satisfaction of the persons. This will have control over poor service delivery at the community level.

**To show others that the service is good**: The clinical audit team may also make a comparative study of a few communities in order to have a check on the quality of service rendered across different communities. If it is found that a few SHT/As are not offering satisfactory service, the clinical audit team may set standards again in order to establish uniformity in service delivery across different communities.

**To provide opportunities for training and education:** The clinical audit team, based on its periodic audit, may organize Skill Enhancement Programs (SEP’s) for SHT/As on an annual basis so that their service delivery would meet objectives of clinical Audit Policy.

**For better use of resources:** The process of clinical audit automatically demands that all kinds of resources be used by SHT/As in order to meet its objectives.

**To improve working relationships:** Organizing SEP’s, setting standards for service delivery and periodic clinical audit facilitates interactions among SHT/As that strengthens the working relationships.

**Check your progress I**

1. Action taken to avoid the occurrence of the impairment by tackling basic causes is referred to as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ prevention.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_ is prepared to identify infants who are at risk for having communication disorders.
3. The record that gives information about a person’s identity is called \_\_\_\_\_\_\_\_\_\_.
4. The expansion of ‘S’ in SOAP is \_\_\_\_\_\_\_\_\_\_\_\_\_.
5. As per the\_\_\_\_\_\_\_\_\_\_\_\_\_ act, every citizen has the right to know information.

**5.5 Referrals**

If a client with communication disorder has a tongue-tie, or an opening in the palate or any other problems, then you cannot deal with these problems, isn’t it? Then, you have to refer the person to an appropriate professional. This process of sending a client to another professional for appropriate assessment and/or therapy is termed as referral. Therefore, let us look at the professionals who the clients need to be referred to. We shall answer a few questions and thereby understand the process of referrals.

1. If the person has speech or language problems you will refer him/ her to a speech-language pathologist.
2. If the person has hearing problem, whom will you refer to?

Audiologist? Good.

1. If the person has ear discharge, whom will you refer him/her to?

Yes. An ENT Specialist.

1. If the person’s learning is slow and s/he is not on par with other children of his age on intelligence, whom will you refer him/her to?

Good. You will refer him to a Clinical Psychologist.

1. If the child has medical problems, whom will you refer him/her to?

A Paediatrician. Yes, correct.

1. If the person has pain in the throat along with a voice problem, whom will you refer him/her to?

A speech-language pathologist and an ENT Specialist.

1. If the person has aphasia, dementia or brain damage whom will you refer him to?

Neurologist. Yes.

1. If the person has cleft palate, whom will you refer him to?

Plastic Surgeon. Good. You are right.

1. If the child, after surgery for cleft palate, requires prosthesis you will refer the child to a…….. Prosthodontist.
2. If the child has motor problem and is unable to move the limbs, whom will you refer to?

Physiotherapist. Very good.

Make appropriate referrals when required. If such specialists are not available in the hospital/center that you are currently placed, then refer the person to professionals who work at other centers/hospitals. Write a letter stating the age, gender, and condition of the client along with your diagnosis. Indicate the purpose of your referral. Specifically request for the examinations that are required. Send the referral letter along with your report. Without some explanation, the professional will be at loss to understand the purpose of referral. Request for a report from the professional whom you are referring the client to.

Once you get the reports from the required professionals, you can combine information and make a provisional diagnosis. Isn’t it better to diagnose ***Delayed speech and language associated with cerebral palsy*** rather than simply ***Delayed speech and language***? The first option is better because you also have the cause of the disorder. By making appropriate referrals, you will learn more about the disorder.

Here is a sample referral letter for your reference.

From, 12th April, 2016

Dr. \_\_\_\_\_\_\_\_\_\_\_

ENT specialist

AIISH, Mysore

Karnataka

Respected Dr. \_\_\_\_\_\_\_\_\_

Mr. Varun, a 24 year old male, is being referred to you for a laryngoscopic examination. He was seen at our center for a voice evaluation on April 11, 2016. He has harsh voice quality and accompanying throat pain.

I am making this referral to verify Mr. Varun’s medical status prior to the initiation of therapy services. Enclosed please find a copy of the diagnostic report. I request you to kindly send a report of the assessment conducted by you through Mr. Varun.

Yours sincerely,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Speech and hearing technician

Primary Health Center

Mandya, Karnataka

**5.6 Home based training**

Children spend most of their quality time with their parents. In fact parents are their first teachers, because children learn many things from their parents even before they enter school. If you have observed typically developing children in your neighbourhood, you would have observed that the parents and the other family members keep talking to their children about the various things that they see/do or have seen/done. Children also ask the parents questions about different things that they have heard from the teacher or others. Through this conversation, children learn a lot in an informal manner. In a similar manner, children with special needs should also be given an opportunity for informal learning.

You should always remember that in addition to providing children with special help, which would be given by a professional, they also require extra training by the parents/caregivers. The extent of participation by parents in the rehabilitation of their children determines the rate of improvement and success in their lives. When a parent is not involved in his child’s training, it might take a longer time for the child to improve.

The training by the parents should be given as far as possible in natural set-ups, to supplement what the SLP has taught. This additional training can be given by anyone in the family or neighbourhood. It does not have to be done only at home, even though the name suggests that it should be done at home. This additional training needs to be provided irrespective of whether the children attend training on a regular basis or once in a few days or months. The home training would have to be continued even when children are enrolled into school.

You should always make sure that the caregiver is actively involved in providing training even if the child attends therapy on a regular basis. For these children, the parents or caregiver should be provided information about the kind of training they should provide the child before the next therapy session. Given below are some points that you should include while counselling the parents/caregivers about training at home. These have been given separately for children who have just been diagnosed to have communication disorder, those who are attending therapy regularly, and those who are not attending therapy on a regular basis.

**For those who have just been diagnosed to have a communication disorder**

* Everything taught to the child should be done in a meaningful way. Rote learning should be avoided.
* They should start teaching simple information and gradually move to more complex information.
* They should start training using concrete information (things that can be seen or felt) and proceed to teaching abstract information.
* The caregiver should be encouraged to use positive reinforcement and avoid using punishment. Whenever the child says or does something that is desirable (for example, answers questions asked, or attempts to talk) positive reinforcement should be given. The reinforcement could be in the form of a smile, a hug, a pat on the back of the child, or saying “good”. At times the caregiver could give things that the child likes such as a sweet, a sticker, or a toy to play. If the child did something not desirable (for example, refuse to answer, or throw a temper tantrum) it is better to ignore him/her or distract with a different activity rather than punish or scold him/her.
* Initially the child should be taught only one language. This may be necessary for those children who have considerable difficulty in learning language. If the child has considerable residual hearing (useful aided performance) or mild to moderate level of disability, s/he could be encouraged to learn more than one language.
* It is essential that the caregivers select the language to be taught right in the beginning. It would be preferable to teach a regional language known to the caregiver. The decision regarding the choice of language to be taught should also be based on the medium of instruction that would be taught when the child goes to school. Parents should select the possible medium of instruction for children even if they are not in a school going age. This should be done so that the child would not have to change and learn a new language when s/he goes to school later on.
* The caregivers should have realistic expectations regarding the progress the child would show. If the child has minimal residual hearing or severe level of disabilities, they should realise the progress that the child would make may not be much. In such cases, the caregivers should not expect the child to progress like children having considerable residual hearing.

**For those who are attending therapy regularly**

* The training should not be just a repetition of what is done in the therapy session. Instead the activities done by the caregivers should add information to what is taught in the therapy session.
* Make a list of activities that can be done by the caregivers and not expect them to plan the activities on their own. For example, if you have taught the child about banana, ask the caregiver to take the child to the shop and purchase the fruit. The child should be the one who should ask the shopkeeper to give the particular fruit. On the way home the caregiver should talk about the things that they will be doing with the fruit such as peeling it and eating it/ keeping it till it becomes ripe/cutting it to make a fruit salad/ offering it to God, etc. After bringing the fruit home, the caregiver should help the child to do the things that were talked about and discuss it once again.
* They could teach in a natural set-up some of the vocabulary that you plan to introduce in your next therapy session. For example, if you plan to introduce teaching about buying things at a shop, the parents could be told to teach about money at home.
* The parents could use different materials and teach the same things that were taught in the therapy session. For example, if you used pictures and models of fruits during therapy, ask the parents to use real fruits or a different set of pictures, or cut-outs of the fruits.
* If the caregiver is literate, they should be encouraged to write about the home-training activities under the following headings:
* Activities done
* Material used for each activity
* Reinforcement used
* Response of the child
* You should spend a few minutes at the start of each therapy session to discuss the things that were done as part of the home training activity. Also, spend a few minutes at the end of the session regarding the things that they should do before the next session.

**For those who do not attend therapy on a regular basis**

Some of your clients may not be attending therapy on a regular basis since it may not be convenient for them to do so due to several genuine factors. They may attend demonstration therapy wherein you would orient the parents about the activities that they would have to do when they go back home. For such parents you would give a broad outline of the objectives of the training and the method/s of achieving the objectives. This would include the activities you would want them to carry out. Demonstrate the activities to be used. Make the parents perform the activities in front of you so that you are sure that they have learnt the activities and the targets. Provide this in writing which is called as a home training program. Encourage them to keep in touch with you to clarify their doubts. Teach them a way to maintain records/diaries about the task, status of the child before training and improvements during and after training. Inform them to bring the record when they come for the second visit. Insist on importance of home training*.* Encourage a parent who has done a good home training. Praise them for their participation. There will always be some parents who will find an excuse for not doing home training. Let them talk to parents who have trained the child. They can also be encouraged to interact with their child who has made noticeable progress. This will motivate the parents to involve themselves better in the training process. Goals can be provided for a duration of 3 months. The parents have to report to you after three months with the progress record of the child. Once they report the progress can be assessed by you and depending on the improvement, goals and activities can be provided again. This process can be repeated till the client shows considerable improvement.

There may be other parents who are out of station and settled in far away places. They may not be able to come to you frequently. They can enrol for correspondence therapy programmes. However, these are more useful for caregivers who are educated. In correspondence programmes, graded lessons are provided by mail. The caregivers have to carry out the activities described in the lessons to achieve specific objectives. Give Part-I to the parents. Demonstrate one activity in Part-I. Parents can train the child at home and inform you when Part-I is completed. If you receive a satisfactory report about the progress achieved, you can send Part-II and so on. In between you can also ask the parents to come for a meeting. You can also give them addresses of speech therapists near their homes. You can also tell the person/parent to register in the website www.aiishtcpd.com which supports rehabilitation through distance education. They can also email to [aiishtelecenter@gmail.com](mailto:aiishtelecenter@gmail.com) for getting the required guidance through skype.

**5.7 Parent guidance and counselling**

There are times in your life when you are confused and are not able to take the right decision, for e.g., when you have to select the course which you have to study after your XIIth or the college in which you have to study. During these times, any help or information that you receive from your well wishers or friends or any other experienced person (guidance) is always welcome which helps you take the right decision. Similarly when you feel low due to some reason, and if your friend counsels you and fills you with confidence and courage, you really feel relieved and get the strength to move ahead in life. Thus this process of guidance and counseling is common and could happen in different people’s lives during different circumstances.

Guidance and counseling are also important in the speech-language intervention process and is an integral part of it. Guidance is the assistance or help provided by a more experienced person to a less experienced person. This process helps the less experienced person in acquiring the required knowledge and skills which inturn helps him/her in taking the required decisions. Guidance tries to develop in a person the ability to help himself. Guidance could be interms of providing information related to rehabilitation aspects, educational or vocational (job related) aspects.

Counselling is a process in which a relationship is established between two persons (a counsellor and the counselee) in which the counsellor tries to help the counselee to understand his/her problems and help solve them. Infact counseling includes wide range of procedures including advice giving, information giving, interpretation of test scores, encouraging the counselee, solving the difficulties faced by the counselee thereby reducing the emotional stress etc.

Clients and their families feel a great sense of loss when they receive the diagnosis of a communication disorder. This feeling of loss can be shown or manifested through different emotional responses such as grief (feeling deep sorrow), anger (feeling of hostility and displeasure), guilt (self-blame), shame, inadequacy etc. Clients rarely talk about these feelings directly. Therefore, the professionals handling the client must observe any behaviours that might indicate client distress and address them through counselling.

In speech-language intervention, the counsellor is the speech-language pathologist (SLP) and the counselee is the client/family of a client with a communication disorder. An effective relation between the SLP and the client has to be built on mutual confidence, trust and respect. The SLP should have good listening skills in order to identify the clients’ concerns. For e.g., persons with communication disorders may experience negative feelings, thoughts and emotions, increased stress levels, fear, uncertainty etc. because they are not able to speak clearly and the others in the family are not able to understand them. Counselling helps the clients to express these feelings, fears and uncertainties and make certain changes in the attitude and behavior. Counselling helps clients and their families to cope with the reality of the communication disorder and help them understand that a communication disorder is only one aspect of the client’s overall identity.

Counselling is mainly done through the conversation method. The counselor converses with the clients about the problems that need to be solved or reduced. The counselor tries to determine what the problem is and what can be done about it and what may be expected. The emphasis is on acquiring some more useful skills and behaviours rather than eliminate undesirable behaviours.

Counselling is an ongoing process and not a onetime event. It has to be incorporated in both the assessment as well as the treatment process. The following are the aspects to be counseled on after the assessment process:

* What is the communication disorder that the client is facing
* Assessment/test results
* Possible causes for the disorder and what the particular cause in their case is
* Recommended services
* Types of services available and their cost
* Possible expectations from the services

The following are the aspects to be counseled during the treatment process:

* Goals taken up for intervention
* Procedures to be used during the therapy
* Rationale for using the specified procedures
* The reinforcements to be used with the child
* The expected results or outcome of therapy
* Training that can be done at home.
* Importance of maintaining a record to document the child’s responses during home training

As a speech-language technician, you too need to counsel clients during the intervention process. Your speaking and listening skills are very important in counseling. You need to listen to the grievances/ questions put forth by the client or their family members carefully and provide them with appropriate answers. Remember that you are a well-wisher and a friend of the client and the family and their welfare is of utmost importance.

**Check your progress II**

1. If a person has ear discharge, you will refer him to an\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. For those patients who are out of station and cannot come to your center for therapy, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_therapy is the solution.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the process in which one person helps the other in solving his problems.
4. Counselling is mainly done through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method.
5. Training given by parents should be in a\_\_\_\_\_\_\_\_\_\_\_setting.

**5.8 Let us sum up**

In this unit, we have learnt about the preventive measures of speech and language disorders. As we all know, prevention is better than cure. Hence, attempts to try and prevent the disorder at any of the three levels are mandatory. Thus, we can reduce the impairments following disability. Generally there are three types of prevention such as primary, secondary and tertiary prevention. In the present situation we can prevent the disabilities by educating the parents through media like television, radio, etc. We also learnt about the role of SHT/A in the prevention of communication disorders. Now you are also familiar with high-risk registers, which can be used by both medical and non-medical professionals for screening.

You also learnt that documentation of records is as important as that of offering services. While a SHT/A is responsible and accountable for many questions that persons might have in a community, s/he is also answerable to the professionals for whom the documents that s/he preserves will become very helpful. You also learnt about several Acts by the Government of India that emphasizes a citizen’s right and therefore, you should abide by the rules and regulations.

Importance of making referrals and the purpose of the same is another aspect that you have learnt from this unit. You also became familiar with the contents of a referral letter. In the last two sections you also understood that parents have to be involved in the intervention process and learnt a few tips to guide them in the right path. Counselling is another important aspect which you have learnt in this unit. You must be aware that persons with communication disorders and their family can experience a range of emotions and counselling needs to be carried out to help them cope with these emotions.

**5.9 Answer keys to check your progress exercises**

**Answer keys to check your progress I**

1. Primary
2. High risk register
3. Demographic record
4. Subjective statement of the person
5. Right to information

**Answer keys to check your progress II**

1. ENT specialist
2. Correspondence
3. Counselling
4. Conversation
5. Natural

**5.10 Questions for self study**

1. Define the different types of prevention.
2. Explain the role of a speech and hearing technician in preventing speech and language disorders.
3. Explain about high-risk registers briefly.
4. What is record keeping?
5. Describe the types of records to be kept by a SHT/A
6. How are the records of community maintained?
7. What is the purpose of documentation?
8. List at least five types of information documented in records
9. What is indexing? Give an example.
10. What is clinical audit? What are its objectives?
11. Why are referrals made?
12. Write a sample referral letter referring a client with behavioural problems to a clinical psychologist.
13. Explain the significance of home based training.
14. What is the solution for training the individuals with communication disorders staying in remote places?
15. When is counselling carried out? Explain the contents of a counselling session carried out just after the completion of the assessment process.

**5.11 Suggested readings**

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