



NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: CHS407

COURSE TITLE: Care of Persons with Disabilities

CHS 407: CARE OF PERSONS WITH DISABILITIES

COURSE GUIDE

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Introduction

It is important to appreciate the problems and prospects of disabled individuals in our society, and this can only be done when everyone including all caregivers have better knowledge and understanding of the subject-matter. The parents, teachers and healthcare givers are all in vantage positions to help these important individuals in the society. We also must understand that disability does not mean inability only we need to exploit the strengths of these disabled individuals so that we can capitalize on their strengths to get to a higher level.

The course is in the best position to assist you for better preparation to meet the increased demands of these special groups of people in the community.

The Course Guide tells you briefly what the course entails, the course materials to be used and how you can work your way through these materials. Tutor Marked Assignments are also provided at the end of each unit including your further readings to enrich your knowledge. No doubt, you will learn greatly from the course materials.

The Course

The course is expected to expose you to the historical background of disability, parental and community influence on disability, definitions and concepts of disability, categories of disability, causes of disability, prevention and management of disability, specific disabilities like deafness, blindness, mental retardation, physical disability and miscellaneous issues like sex and marriage life of the disabled, employment outlook of the disabled and old age as a disability.

Course Aim

The aim of this course is to present to you a concise insight into the care of the persons with disability. This special group are crucial to the development of our nation as their contributions to Nigerian Society cannot be undermined.

Course Objectives

After going through this course by the learners, you would be able to:

- discuss briefly the historical background of disability in Nigerian Society.
- explain parental and community influence on disability.
- enumerate the causes of disability.
- discuss prevention and management of various disabilities.

- state at least three specific disabilities and discuss each in detail.
- explain old age as a disability.

Working through the Course

In order to successfully complete this course, you are required to read and study the course units carefully, read the reference books and do a lot of browsing on management of people with disabilities as this is of global interest read about the management from communities to communities and countries to countries of the world for better understanding and comparison.

Each unit also contain Tutor Marked Assignments which would be of tremendous assistance to your study.

Course Material

Major components of the Course are:

- Course Guide
- Study Units
- References/Further Readings

Study Units

Module 1: Introduction to the care of persons with Disabilities

Unit 1: Introduction to the care of persons with Disabilities

Unit 2: Definitions and Concepts of Disability

Unit 3: Categories of Disability

Unit 4: Causes of Disability

Unit 5: Prevention and Management of Disability

Module 2: Specific Disabilities

Unit 1: Deafness

Unit 2: Blindness

Unit 3: Mental Retardation

Unit 4: Physical Disability

Unit 5: Social Disability

Module 3: Miscellaneous

Unit 1: Sex and Marriage life of the Disabled.

Unit 2: Employment outlook of the Disabled.

Unit 3: Old age as a Disability.

Assessment

There are two aspects to the assessment of the course, firstly, the tutor-marked assignment which gives the learner a good opportunity to excel if properly done and secondly, there will be a written final examination. In dealing with the assignments, you are expected to apply information, knowledge and strategies during the course.

Tutor-Marked Assignment (TMA)

The Tutor-Marked Assignment is the concurrent assessment of your course which accounts for 40% of the total score for now. You are expected to answer the required number of tutor-marked assignments to be decided by the University authority, the same type-written and submitted to the facilitators through the Counselor for grading before you are allowed to write the final examination in the course.

End of Course Examination

The final examination on this Course is expected to cover a three-hour duration which has a value of 60% of the total course grade except otherwise decided by the University authority.

Summary

This course intends to provide you with basic knowledge of the care of persons with disabilities and upon completion of the course, you are better prepared for meeting the demands of your clients either at the community or hospital based levels.

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**COURSE TITLE: CARE OF PERSONS WITH
DISABILITIES**

COURSE CODE: CHS 407

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CHS 407: CARE OF PERSONS WITH DISABILITIES

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Module 1: Introduction to Disability

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1.0 Introduction

The biggest difficulty in talking about disabled people is in trying to define what a disability is. What might be limiting to one individual may not be to another, loss of one eye may not limit a telephonist very much, but it would be devastating to an artist. Likewise, what may be restricting in one individual may not be in another, not being able to walk does not hamper your ability to enjoy music. So what does the term disability or handicap mean? Well, we can say as a generalization that a disability is any condition which limits or restricts a person's behaviour or potential. This means that most people at some point in their lives, are likely to be disable in one way or another.

In this unit, historical backgrounds of disability, parental and community influence on disability and human right violations of the disabled shall be critically examined. Your understanding of this foundation unit will help you greatly in this course.

2.0 Objectives

At the end of this unit, you will be able to:

- give a brief historical background of disability.
- explain the parental and community influence of disability.
- discuss various human rights violation of the disabled.

3.0 Main Content

3.1 Historical background of disability

In order to appreciate the problems and prospects of disabled persons in contemporary Nigeria, it is important to summarize the history of disability in some parts of the world. The earliest recorded attempts to rehabilitate the handicapped involved education of the blind and the deaf. The first special institutions for the blind were established in Palestine, Syria and Paris. The French hospitals were used as an asylum for blind soldiers who lost their sight during the crusades. A man from Alexandria, Didymus, invented block letters employed in teaching the blind to read. Later, wax tablets were invented by a German, Harsdoffer, and this device enabled the blind to write. A French man, Valentine Huay, opened the first school for the blind in Paris in 1784. Louis Braille, a blind instructor, modified a method of writing with embossed dots (introduced earlier by Charles Barbier) by reducing the number of dots from twelve to six. Thus, the Braille system came into being in 1929. The earliest attempt at establishing a rehabilitation workshop for blind people in England was made by Henry Dannett, an English man who opened an institution “The School of Instruction for the Indigent Blind”, in Liverpool in 1915. This was graded to “The Asylum for the Blind”, established by David Miller and David Johnston in Edinburgh.

A Spanish monk, Pedro Ponce de Leon, and another Spaniard, Juan Pablo Bonnet, had successfully taught deaf children to speak, read, write and understand Arithmetic, between 1550 and 1620 A.D. Bonet eventually developed a system of one handed manual alphabet which (with some modifications) is still being used by deaf people today. Charles 1 of England saw Bonnet’s work in Spain and took many ideas back to England. The first public school for the deaf was established in Paris in 1760, by a catholic priest, Charles Michael Abbe de L’Epee. Later, other institutions for the deaf were established in Germany, England and the USA.

The mentally retarded persons were among the most neglected of the handicapped. They were frequently taken to the mountain side and left to die. Jean St. Vincent de Paul was one of the first humanitarians to make vocational provisions for the mentally deficient in France. Educational rehabilitation of crippled children developed much later than education of the deaf or the blind. Alms-begging which is characteristic of many cripples in Nigeria today, was practised in Europe on a large scale. In 1832, however,

John Nepinak opened the first educational institution for the Crippled in Bavaria.

Educational rehabilitation of handicapped children in Nigeria began in 1936 when Oji River Rehabilitation centre was founded by Dr. T.D.F. Money. The main purpose was to treat leprosy patients, including those who were blind, deaf and physically handicapped. In 1938, the Church Missionary Society established the physically handicapped unit at the special Education center Oji River, with an initial intake of 123 pupils. Special school for the blind was also founded by Church Missionary Society in 1960 at Oji River. This was followed in 1961 by a school for the deaf, started by A.F.C. Savory. In 1933, Kano State has established a reformatory school in Kano to cater for juvenile offenders sent in the courts. It is noteworthy that during this period, there was a clear distinction between special schools and healthcare centres, but presently rehabilitation centres are different set-up from special schools for the handicapped. According to Amajo (1988), a Directory of Social and Vocational Resources of Nigeria listed 98 social rehabilitation centres which provide services to the blind, the deaf, the mentally retarded, the physically handicapped and leprosy patients. These centres are located in Borno, Oyo, Ogun, Lagos, Anambra, Imo, Cross River and Akwa Ibom States.

Amajo (1988) also cited the International Labour Office (ILO) as giving number and categories of handicapped persons in the centres as: 465 blind persons; 890 physically handicapped, 344 Learning disabled; 437 hearing-impaired, 575 leprosy patients, 500 mentally retarded; 450-600 beggars and 10,000 veterans. The Centres provide training in various trades, including tailoring, carpentry, soap-making, book-binding, shoe-making farming, animal husbandry, watch repairing, power laundry, sewing, weaving and typing.

From the above, it can be seen that early education and rehabilitation centres for the handicapped were founded by the early Missionaries to Nigeria. It was not until seventies that various Governments in Nigeria started to establish schools for the handicapped. Such Examples of such schools are the Kwara State School for the Handicapped, Ilorin and, Ondo State School for the Blind. Others are Ondo State School for the Deaf and then School for the Handicapped, Minna, Niger State.

3.1.1 Definitions

“Impairment”, “disability” and “handicapped”, are words often loosely and interchangeably used in describing aspects of physical, intellectual, emotional and sensory functions.

The following are summaries of the World Health Organization (WHO) definitions of these terms as presented in 1981, when the International year of the Disabled was launched.

1. Disability: is the term used for the measurable functional loss resulting from an impairment.
2. Impairment: is a medical term for anatomical loss of bodily function.
3. Handicap is defined as the consequence of environmental and social conditions which prevent a person with a disability from achieving his or her maximum potential.

3.1.2 **Classification of Disabilities**

Disability can be divided into three broad areas:

1. **Neurological Disability**: are classic disabilities resulting from sensory impairment e.g. blindness, deafness, mental retardation, speech defects, epilepsy, cerebral palsy.
2. **Neuromuscular Disability**: these are disabilities resulting from damage to the muscles e.g. monoplegic, paraplegic, quadriplegic, hemiplegic, polio, leprosy, cerebral palsy etc.
3. **Orthopedic Disability**: these are disabilities, which has to do with deformities of the body, e.g. amputation, arthritis, cosmetic surgery, old age etc.

3.2 **Parental and Community Influence**

It is a common knowledge that the first teacher of a child, handicapped or otherwise is his/her parent. In any culture or tradition, the arrival of a new baby brings joy and relief to the family. However, if the parents noticed that the baby is born with a disability, the joyful atmosphere that greeted the baby turns into grief and sorrow. The parents then begin to think about how the handicapped child will have a secure and useful future. They also wonder whether the child will be happy about his condition in later life.

During this period of depression, the parents should seek appropriate counseling from professionals. If the much needed counseling is not provided in good time, the parents may tend to reject the handicapped child. Therefore, in order for the parents to form early positive attitude and acceptance towards the child, early intervention by interdisciplinary experts such as social workers, special educators, teachers, psychologists and rehabilitation counselors will be needed. These experts will work with the parents in their homes, schools, clinics and rehabilitation centres. It is most likely that the parent of the disabled child will be the first person to detect that a child is disabled. For example, if a child of about four month old does

not look at the face of his or her mother during feeding, that child might be suspected to have visual problem. However, this suspicion has to be confirmed by a qualified medical doctor.

Likewise, if a child is about nine months old and cannot respond to a source of sound made around him/her e.g. clapping, ringing bell or such a child frequently watches the lips of his/her mother talking, such a child may be presumed to have hearing defects, this also has to be confirmed by an audiologist.

As soon as a child is confirmed to have a disability by a qualified Doctor, the parents should face the reality and challenges of bringing that child up properly so that the child can be useful to him/her self, the family and community. The parents can do this by adopting positive attitude towards the child. The parents should think about their child primarily as a human being. His/her handicapping condition should be regarded as secondary. The parents should endeavour to treat their handicapped children like the other children in the family. The parents should avoid over protecting or over accommodating the child by restricting him/her to do certain things in the family. In fact, the handicapped child and other siblings should share household chores.

The next stage in the development of the child is to provide him the opportunity of early education and training. It is a common practice, that many parents wasted a lot of useful time shopping for medical advice with the hope that “miracle healing” will one day occur to their handicapped child. This may not always be the case as most conditions of disability are permanent. As a result of unnecessary time wasting on the part of the parents, many handicapped children who should have been enrolled in the school for the handicapped at the right age of six years or below were enrolled at about fifteen years or beyond.

3.2.1 Mainstream Education

The mainstream education which is also known as “integrated education” or “inclusive education” is an arrangement of posting handicapped students to normal schools in order to learn side by side with their non-handicapped students. This is done for the purpose of social integration, normalization and adjustment. It is realized that the handicapped will live most of their lives with the non-handicapped in the society hence, the concept of mainstream.

Although, segregated education which is practiced at primary school level in Nigeria is accepted, attempt should be made to send handicapped children to secondary schools for the purpose of social integration. However, segregated education in residential schools or special day school is desirable

for the purpose of acquisition of “desirability skills” i.e. Braille, typing orientation and mobility, sign language, manipulation of wheel chairs etc. They need these skills at later life. At this level of segregated education the handicapped children gain confidence and develop positive attitude towards their disabilities which is gained from the role models and mentors. The influence of role models on individual handicapped can be a psychological booster to their self-image. Aside, segregated education promotes the spirit of friendship and sense of belonging.

In Nigeria, Local Government schools Board and Ministry of Education school districts or State Ministries of Education have options of making use of three types of mainstream education:

1. **Resource room Teacher:** Resource room teacher is a specially trained teacher posted to a mainstreamed school to assist the handicapped students in special areas such as Braille, typing, orientation and mobility, interpreting lectures in case of the deaf students. A resource room teacher is not to teach a regular classroom. The office of a resource room teacher must be equipped with special equipment and materials like Braille writers, Braille sheet, typing sheet, mobility canes, tape recorders, audiometers, group hearing aids etc.
2. **Itinerant Teacher:** This specialist teacher travels daily to cover three or more mainstream schools in a day, providing special instructions in special areas such as mentioned in the case of a resource room teacher.
3. **Teacher Consultant:** This special teacher covers a wider area than an Itinerant teacher. He may be assigned to cover a school area in a day. She performs similar duties like a resource room teacher and Itinerant teacher.

Special education cannot succeed on its own. It must be carefully and properly planned so that it can achieve the desired objectives. Special education must be supported with well-trained special education teachers. There are some teachers whom we refer to as “generalists”. They acquire some elements of special education under general education instructions, such teachers cannot teach certain aspect of special education such as Braille reading and writing, abacus, sign language etc. It is no wonder therefore, such teachers cannot master such subjects mentioned above because such teachers themselves cannot teach the subjects.

Many people outside the special education profession think that special education teachers possess mystical powers in teaching the handicapped. Both handicapped children and their teachers do not possess mysterious powers, rather, they do what they are doing as a result of commitment for the special training they receive.

Special education teachers world wide receive special respect and commendation from the public. They are rated higher than other categories of teachers. The reason for this is simple: they deal with special children, most of whom the public thinks are hopeless, helpless and perpetually dependent.

In some Nigeria universities , special education programmes are offered at undergraduate and postgraduate levels, E.G. Universities of Ibadan, Jos and Calabar, There are some Federal Colleges of Education (Special),that equally offers special education programme at NCE level e.g. Federal College of Education, Oyo that equally offers special education programme at Nigeria Certificate of Education level. Other universities and colleges of education offer a kind of elementary special education all over the country. However, special education courses received in these institutions are not sufficient to earn the students the qualification of a special education teacher. If the students don't want to be regarded as "generalist", they would need comprehensive special education courses in the approved institutions so as to become "special education" teachers.

3.3 Human Rights Violation of the Disabled

One of the biggest areas in which the disabled persons have suffered discrimination and victimization as well as deprivation is the violation of their fundamental human rights. This include all forms of attitudinal barriers and the traditional behaviours towards the disabled persons, such as open discrimination, denial of opportunities, unequal treatment etc.

Although, the declaration of the UN on human rights as it affects the disabled persons in 1948 outlaws all forms of dehumanizing and humiliating treatments of disabled persons. Nigeria has not done enough to protect the rights of her disabled citizens. Open discrimination is one important area in which the handicapped suffer most. This discrimination takes many forms and shapes in many places. For example the discriminatory policies of employers, who made a qualified handicapped person to serve as a subordinate staff under a non-handicapped boss. This mistake of the past of some policy makers arises from the general misconceptions and misinformation that a disabled person lacks necessary capability to lead effectively and efficiently. This unwarranted misconception and misinformation will disappear if only the handicapped concerned is given the opportunities, supports and encouragement to take his or her rightful positions. All qualified handicapped persons have received necessary proper training in the use of life – coping skills, otherwise known as alternative technique to meet up with the challenges that may surface from his or her duties. However, it is heartwarming to note that one of the State

governments of Nigeria appointed a blind man recently as a Special Adviser to the Governor on Political Affairs. From reports, the Blind Political Adviser is performing excellently well more than what anybody can expect.

Another noticeable discrimination that is observable in Nigeria and which is not usually recognized by the public, takes place in a gathering or meeting of people, where the blind and the deaf are in attendance. For example, when printed handouts are distributed to the public, blind persons are often skipped because it is believed that they cannot read print. This attitude should be corrected. After all, the blind can take the handout home and be read by a reader or by a sighted person. In the same manner, a deaf person in a gathering should be provided with an interpreter who will interpret the proceedings of the meeting to him. Handicapped person should not be prevented from benefiting from modern information technology. There is nothing more humiliating and frustrating to a deaf person than to deny him the spoken information going on around him.

On the whole, in today's increasingly globalized world, it is incumbent upon the international community (including Nigeria) to ensure the full human rights and fundamental freedoms of people with disabilities and their equal opportunities to participate in all spheres of human activity, no matter where they may be in the global village. The United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities is the principal instrument specifically addressing the civil, political, economic and social rights of disabled persons.

Many of the fundamental human rights of the disabled are being violated with impunity daily in this country. Some of the human rights are violated due to ignorance of the public and sometimes due to deliberate action. The handicapped people, whether their disabilities are God-given or man-made should be sufficiently educated in order to fight for their rights. Violations of human rights of the disabled is a direct traditional custodialism on the part of the general public. Disabled themselves should lead undaunted fight against discrimination, oppression and misconception, so as to gain acceptance and take the centre stage in the scheme of things.

4.0 Conclusion

There is need to appreciate the needs of the disabled and to realise that these are individuals that must be respected and cared for as members of the society who have concrete contributions to make to the development of the society. Every learner must open up his/her mind to appreciate these individuals in our environment.

5.0 Summary

In this unit, you have learnt the historical perspective of disability, parental and community influence on disability and various human right violations of the disabled.

6.0 Tutor Marked Assignment

1. Discuss the parental and community influence on disability.
2. List five human right violations of the disabled in Nigeria.

7.0 References / Further Readings

- Adeshina, S. (2001). *Disabilities: A Practical Handbook for All People*. Ilorin: Rajah Dynamic Printers.
- Abang, T. B. (1981). *Educating Mentally Retarded and Gifted Children in Nigeria*. Ibadan: Clavarianum Press.
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Unit 2: Definitions and Concepts of Disability

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- 2.0 Objectives
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1.0 Introduction

In the last unit, we looked at the historical background of disability, parental and community influence on disability and human right violations of the disabled. This unit will cover some definitions and concepts of disability. And it is hoped that the unit will assist you further to have a solid background to the course.

2.0 Objectives

At the end of this unit, learners should be able to:

- define some concepts used in disability.
- identify concepts in disability.

3.0 Main Content

3.1 Various definitions of concepts used in disability.

1. Autism: A developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects educational performance. Characteristics often associated with autism are engagement in repetitive activities and

stereotyped movements, resistance to environmental change or change in daily routines and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance.

2. Deaf-blind: Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programmes solely for children with deafness or children with blindness.

3. Deaf: A hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.

4. Hearing impairment: An impairment in hearing, whether permanent or fluctuating, this adversely affects a child's educational performance but that is not included under the definition of deafness in this section.

5. Multiple disabilities: Concomitant (such as mental retardation-blindness, mental retardation-orthopedic impairment etc), the combination of which causes such severe educational problems that they cannot be accommodated in special education programmes solely for one of the impairments. The term does not include deaf-blindness.

6. Orthopedic impairment: A severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital deformity (for example, clubfoot), impairments caused by disease (for example, poliomyelitis, bone tuberculosis, etc) and impairments from other causes (for example, cerebral palsy, amputations and fractures or burns that cause contractions).

7. Other health impairment: Having limited strength, vitality or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatism, fever, nephritis, asthma, sickle cell anaemia, haemophilia, epilepsy, lead poisoning, leukemia or diabetes that adversely affect a child's educational performance.

8. Serious emotional disturbance: The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance.

- a. An inability to learn that cannot be explained by intellectual sensory or health factors;
- b. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;

- c. Inappropriate types of behaviour or feelings under normal circumstances;
- d. A general pervasive mood of unhappiness or depression; or
- e. A tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have a serious emotional disturbance.

9. Specific learning disability: A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not apply to children who have learning problems that are primarily the result of visual, hearing or motor disabilities of mental retardation, of emotional disturbance or of environmental, cultural or economic disadvantage.

10. Speech or language impairment: A communication disorder such as stuttering, impaired articulation, a language impairment or a voice impairment that adversely affects a child's educational performance.

11. Traumatic brain injury: An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory; perceptual and motor abilities; psychosocial behaviour; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative or brain injuries induced by birth trauma.

12. Visual impairment including blindness: An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

4.0 Conclusion

Understanding of various concepts used in the subject matter "disability" is crucial to all learners so that you can render qualitative care to your client either at the preventive or rehabilitative levels.

5.0 Summary

The learner has studied various definitions of the concepts used in disability and it is assured that the knowledge will assist you in the subsequent units.

6.0 Tutor Marked Assignment

Explain the following concepts:

- Autism
- Multiple disabilities
- Orthopedic impairment.

7.0 References / Further Readings

- Adeshina, S. (2001). *Disabilities: A Practical Handbook for All People*. Ilorin: Rajah Dynamic Printers.
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Unit 3: Categories of Disability

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1.0 Introduction

The Individuals with Disabilities Education Act (IDEA) classified disabilities into sensory impairments, communication disorders, medical, physical and multiple disabilities, behaviour disabilities, learning disabilities and cognitive disabilities. All these areas shall be critically looked into in subsequent units but in this unit, we will confine ourselves to the classifications.

2.0 Objectives

At the end of this unit, the learners should be able to:

- Identify various categories of disabilities.
- Give examples of each category listed above.

3.0 Main Content

3.1 Sensory Impairment

This category of impairment includes visual and hearing.

Livingston (1986) said the following definitions of visual impairment are widely used today:

- Visually impaired: Individuals with any type of reduction in vision are described by this general classification. When a child has a problem with vision even with correction (for example, prescription lenses or surgery), which adversely affects his/her educational performance, a visual impairment has been defined (Ysseldyke & Algozzine, 1995).
- Visually limited: When students have difficulty seeing under average conditions but have the condition corrected by adaptation (glasses), they are considered to be visually limited and they are classified as sighted for educational purposes.
- Legally blind: You probably recall from any eye examinations you may have had that normal vision is 20/20. the numerator of this fraction indicates the distance at which you can read figures on a chart (usually the Snellen). The denominator indicates the distance at which a person with normal vision could read those same letters. If for example, your vision is 20/60, that means you can read at 20 feet what the person with average vision can read at 60 feet. Legal blindness refers to those individuals with vision of 20/200 or less in the better eye (after correction).

The National Society for the Prevention of Blindness recommends that children be referred for an eye examination if their attempts to read lines on the Snellen chart have the following results:

- 3 year olds: 20/50 or less.

- 4 year olds through third grade: 20/40 or less.
- Fourth grade and above: 20/30 or less.

An accurate count of visually impaired children remains elusive, because data collection varies from state to state. In recent years, approximately 24,000 students with visual impairments received special education services (about .04% of school-age youth and about .5% of students with disabilities; Ysseldyke & Algozzine, 1995).

Hearing Impairment

Hearing is the sense that children use to learn those language and speech skills necessary for social interaction and academic success. Hearing-impaired students possess the same potential for acquiring language as other children, but they lack linguistic input, the raw material of language acquisition (Lowenbraun & Thompson, 1986).

The following definitions are widely used today (Marschark, 1993): Hearing impairment refers to any type of hearing loss, ranging in severity from mild to profound. There are two subdivisions of hearing impairment:

1. Deafness: Individuals who are deaf possess a hearing disability so acute that they are prevented from processing linguistic information through audition, with or without a hearing aid.
2. Hardness of hearing: Individuals who are hard of hearing have sufficient hearing potential that with the use of hearing aids, they can process linguistic information through audition.

There is a clear distinction between deafness and hardness of hearing, because deafness implies a hearing loss so severe that normal activity is impossible.

Estimates are that about 8% of Americans, or more than 17 million people, experience some form of hearing difficulty. Within this group, approximately 100,000 preschool youngsters, 600,000 elementary and junior high students and almost 1,000,000 high school and college students have some degree of hearing loss, but only about 60,000 of these young people have been educated through special services (U.S. Department of Education, 1993). These numbers mean that not all youth who may need services are receiving them.

Since most classrooms rely heavily on both spoken and written language, students with any type of hearing impairment remain at a distinct disadvantage in their learning. One of the most common dangers these students face is being labeled mentally handicapped. If initially we lacked hard evidence of a hearing problem, we could too easily label a student as slow or difficult, with all the attendant problems that accompany such categorizing.

For the hearing impaired, controversy surrounds the meaning of the term least restrictive environment (Lowenbraun & Thompson, 1986). If interaction with typically developing peers is deemed vital, a regular classroom would seem most suitable, but it is also fraught with potential communication pitfalls. Most experts agree, however, that a regular classroom is most beneficial if specialized support is available. For example, interpreters may be asked to assist in the regular classroom.

3.2 Communication Disorders

Speech and language problems are high-prevalence categories of exceptionality with about one million children served in special education (U.S. Department of Education, 1993). Some students have speech and language problems that are unrelated to sensory handicaps or cognitive difficulty. These students are delayed in demonstrating language or have difficulty expressing themselves. Speech or language impairment is defined as a communication disorder such as stuttering, impaired articulation, language impairment or voice impairment, that affects educational performance.

Students with problems in any or all of the three aspects of language (sound, meaning and grammar) will experience communication disorders, which may be divided into two categories: (1) speech disorders, such as misarticulation (which refers to difficulty with phonemes-the fundamental, distinctive sounds of a language), apraxia (which refers to difficulty of pitch, loudness or quality) and fluency disorders (which usually take the form of stuttering; and (2) language disorders, which usually refer to difficulty in learning the native language with respect to content, form and usage or function, and possibly are present in those students with delayed language development).

What are possible causes of communication disorders? They may range from neuropsychological elements (such as brain damage) that interfere with cognitive development and information-processing strategies to structural and physiological elements (such as hearing problems just discussed) and environmental causes (such as deprived sociocultural conditions). These elements rarely act in isolation. For example, hearing impairments may adversely affect peer interactions, causing a student to engage in fewer attempts at communication with peers and adults.

Here are some signs of communication disorders you should watch out for:

1. Is there any kind of articulation delay or disorder?
2. Is there anything unusual about a student's voice (loudness, uneven pitch)?

3. Is there a smooth flow of speech?
4. Does a student use the same type of speech (similar words to describe actions, people, objects) with the same meanings as typical students do?
5. Does a student use speech to achieve goals in the same manner as other students?

To aid students with communication disorders, teachers can structure classroom small-group activities to maximize interactions among students with communication disorders and peers, provide supports (such as written materials, clear expectations, individual help) that allow all students to be successful and work with the speech and language therapist to assist students with communication disorders in acquiring social communication skills. Encourage nondisabled classmates to talk to these students as much as possible and reinforce them for doing so. Also urge their peers to play with them frequently, thus increasing all forms of interaction. Be a clear and positive model to students with communication problems as you have them use increasingly more complex speech patterns.

3.3 Medical, Physical and Multiple Disorders

Students with medical disabilities are included under “orthopedic impairment” and “other health impairments” in the federal guidelines for students with special learning needs. Orthopedic impairments, including congenital disorders, disease and impairments from other causes, may influence the students’ ability to learn. Students with other health impairments include those with heart conditions, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anaemia, haemophilia, epilepsy, lead poisoning, leukemia or diabetes. Teachers are also likely to experience increasing numbers of children who have Acquired Immune Deficiency Syndrome (AIDS) caused by the Human Immunodeficiency Virus (HIV). Increasingly, schools have provided guidelines for teachers to deal with children with AIDS, under the health impaired category.

Children with physical disabilities experience conditions that have been affected by the central nervous system or other body systems. Children with orthopedic impairments have conditions that involve muscular, skeletal or central nervous system features and affect their ability to move around and participate in academic and social activities in the classroom.

Children with medical, physical and multiple disabilities present unique challenges in the classroom. Teachers should learn about the special disabilities that the student may have so that instructional and evaluation accommodations can be made. For example, a child with AIDS may need special medications to function in school. There may also be a need for the

teacher and other school professionals to educate other students about the condition and the accommodations that are necessary to function in the regular classroom.

3.4 Traumatic Brain Injury

Traumatic Brain Injury (TBI) is defined as follows:

“Acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psycho-social impairment, or both, that adversely affects the child’s educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning, abstract thinking; judgment; problem solving; sensory; perceptual and motor abilities; psycho-social behaviour; physical function; information processing and speech”. (Individuals with Disabilities Act, 1990).

As you can see from this definition, in school systems, TBI refers to injuries caused by external forces only. This definition is used to differentiate TBI from disorders resulting from internal causes such as strokes, tumors or toxins. However, in many cases the concerns, limitations and interventions related to internal and external injuries can be similar.

Traumatic brain injuries can range from mild to severe in nature. The severity of an injury is usually determined by the length of the child’s loss of consciousness following injury. Injuries resulting in a loss of consciousness of less than one hour are considered mild. Injuries resulting in loss of consciousness of one to twenty-four hours are considered moderate; loss of consciousness of longer than twenty-four hours is associated with severe brain damage.

Students with TBI can exhibit significant limitations that affect classroom functioning and they may experience cognitive, physical, behavioural and emotional difficulties that interfere with educational performance. Of particular concern are problems with memory, learning new information, attention and challenging behaviours. Sometimes following a TBI, a student will appear on the surface to be recovering well; however, investigation of the student’s performance may reveal that the student has recovered formerly mastered skills but is having difficulty mastering new skills. Also, students with TBI often experience difficulty with “executive functions”, the skills that allow us to set a goal (such as planning a social activity with friends) and work toward carrying it out. Traumatic brain injury in young children can be especially serious, since younger children have mastered fewer skills prior to the injury; often the extent of injury to the young developing brain does not become apparent until the child grows older and expected higher level skills fail to develop.

3.5 Autism

Many teachers are likely to have in their classes children who are diagnosed with autism. The federal definition of autism is as follows:

“Autism means a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age three, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement and repetitive activities in stereotype movements, resistance to environmental change or change in daily routines and unusual responses to sensory experiences. The term does not apply if a child’s educational performance is adversely affected primarily because the child has an emotional disturbance. (Individuals with Disabilities Act, 1990).

Children with autistic disorder may be encountered in your classroom. Although this is a relatively rare disorder (for example, it has been reported to occur in four to five cases per 10,000 persons), it is a disorder that many individuals, including special education teachers, find challenging. Autism is considered a pervasive developmental disorder (PDD), which is characterized by impairment in several areas including social and communication skills (especially reciprocal interaction), abnormal language development and a very restricted range of behavioural skills and interests (Klinger & Dawson, 1996). Although IDEA includes a definition of autistic disorder, you can find more developed criteria for diagnosing this childhood problem in the Diagnostic and Statistical Manual of Mental Disorders (APA, 1994). Research has indicated that autism occurs more frequently in males (that is, three or four males for every female). The exact cause of autism is unknown, but there is evidence that genetic factor play a role in this PDD.

Great progress has been made in early diagnosis and intervention with autism. Early intervention procedures have been developed and include teaching attention, compliance, motor imitation, communication and a variety of social skills. Typically these children need highly structured teaching environments and specific strategies to generalize the skills that they acquire. Most environments for these children are quite structured so as to make them predictable and routine. Many special education programs have been developed for these children to help them make the transition from preschool to community settings. Most intervention programs that have been successful have involved the family (see Klinger & Dawson, 1996 for a review of these issues).

3.6 Multiple Disabilities

Children with multiple disabilities are likely to present special challenges to regular and special educators. Students with multiple

disabilities include those who have more than one disability and those with a primary disability and with secondary conditions (Ysseldyke & Algozzine, 1995). Teachers who experience children with medical, physical and multiple disabilities will need specific education from their colleagues and continuing education to identify and serve children who present major unique challenges in these categories.

Increasingly, schools are offering a full range of medical, mental health and social services, a trend called “full-service” schools (Reeder, Maccow, Shaw, Swerdlik, Horton & Foster, 1997). Thus, comprehensive services for these children are becoming more and more available. Once your initial anxiety is over, you will be concerned mainly with ensuring that these students are able to share fully in class activities without lowering your expectations for them. The classroom teacher needs to work with the special student to design educational supports and accommodations to allow the child to succeed in school.

3.7 Emotional Disturbances

Here we encounter a particularly baffling cluster of problems whose exact definition and prevalence have continually frustrated investigators. Some students in this category are unusually restless and active, to the point of continually disrupting a classroom; others seem to explode into tantrums at the slightest provocation; still others may be terrified of the most simple situations (such as the student who will not enter a classroom unless the lights are on). These few examples should give you a sense of the wide range of problems encompassed by the label emotional disturbance (the term disturbance is now used in PL105-17 and was changed from “serious emotional disturbances” in 1997).

Characteristics

Emotional Disturbance includes any conditions in which one or more of the following characteristics are exhibited over a long period of time and to a marked degree, adversely affecting educational performance:

- an inability to learn that cannot be explained by intellectual, sensory or health factors.
- an inability to build or maintain satisfactory interpersonal relationships with peers or teachers.
- inappropriate types of behaviour or feelings under normal circumstances.
- a general pervasive mood of unhappiness or depression.
- a tendency to develop physical symptoms or fears associated with personal or school problems (Individuals with Disabilities Act, 1990).

As you can well imagine, determining the causes of many disorders can be difficult, with assessments incorporating biological and environmental elements. Some of these youngsters can be difficult to work with; some teachers may hope that students with behaviour disorders will be removed from regular classrooms. However, often students with emotional disturbance can be successfully served in a structured, supportive regular classroom. Working with the special education support staff, regular education teachers can implement strategies to help these students attain their potential. Before rendering judgment, teachers should keep firmly in mind the interactive nature of the factor involved.

3.8 Attention-Deficit/Hyperactivity Disorder

One of the more challenging problems that teachers may experience in a school setting is teaching a student diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD). Some scholars include ADHD as a childhood behaviour disorder or even a problem that can be classified as an emotional disorder. We discuss it as a separate problem while realizing there are problems classifying it. Research shows that ADHD occurs in approximately 3% to 5% of U.S. elementary school students and is three times more common in boys than in girls (Braswell & Bloomquist, 1991). Although there is considerable controversy over the diagnosis of this problem, most researchers rely on the diagnostic criteria presented by the American Psychiatric Association in its Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (APA, 1994). The two core symptoms of ADHD are (1) inattention and (2) hyperactive-impulsive behaviour (or what is called disinhibition) (Barkley, 1996). Note that some children may display primarily inattention while others display hyperactivity-impulsivity, or these behaviours can occur together as a combined disorder.

ADHD (sometimes simply called hyperactivity) seems to be caused by a variety of factors-neurological, emotional, dietary and/or environmental-and can encompass a range of behaviours (DuPaul & Stoner, 1994; Greene, 1987). For example, some students may exhibit only mild and infrequent episodes, whereas others are chronically disruptive. Among the methods used with these students are medication, behaviour modification, skills training and special family support.

3.9 Learning Disabilities

Of all the categories of exceptionality we have discussed, perhaps none has caused as much difficulty in definition as learning disabilities (LD), or learning disorders. Prior to 1965, special education textbooks contained no reference to the term learning disabilities (Myers & Hammill, 1990). Hammill (1990) reviewed twenty-eight textbooks that included

definitions of learning disabilities. There were eleven different definitions of learning disabilities and in some cases, there was little agreement among the different definitions. Dissatisfaction with existing definitions (including the one offered by the U.S. Department of Education in 1977) caused representatives of several organizations to meet and propose a new definition that has become more widely accepted. Hammill (1990) suggested that there is a growing consensus around one definition.

In 1981, the National Joint Committee for Learning Disabilities (NJCLD) proposed the following definition of learning disabilities:

“Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (for example, cultural differences, insufficient-inappropriate instruction, psychogenic factors), it is not the direct result of the conditions or influences. (Hammill, Leigh, McNutt & Larsen, 1981, p. 336).

A special study group of the National Institute of Health expanded this definition to encompass social skills and the relationship between learning disabilities and attention-deficit disorder. Though controversy may swirl around definitions, professionals working with students with learning disabilities are in general agreement about the following aspects of the problem (Morsink, 1985):

- Discrepancy: There is a difference between what these students should be able to do and what they are actually doing.
- Deficit: There are some tasks others can do that a child a child with LD can't do (such as listen, read, or do arithmetic).
- Focus: The child's problem is centered on one or more of the basic psychological processes involved is using or understanding language.
- Exclusions: Learning disabilities are not the direct result of poor vision or hearing, disadvantage or cognitive disabilities, but these students still aren't learning.

Development and Learning Disabilities

An exclusion component is now used to identify as accurately as possible students with learning disabilities. This component means that the problems are not a result of mental retardation, visual or hearing impairment, motor handicaps or environmental disadvantage. You have probably concluded that learning disabilities occur widely among school-age children;

they are difficult to detect in young children. Reading, mathematics and language are the vulnerable subjects, with research focusing on the psychological processes that may cause the problem.

The Role of Previous Knowledge in Learning Disabilities

Studies of students with learning disabilities have underscored the key role of specific knowledge and skills in learning. As psychological theory has shifted to a greater cognitive emphasis, the role of previous knowledge (the knowledge that student already has) is critical. It is essential to determine the extent to which a student can function effectively with the knowledge needed to perform a specific academic task. Rather than seeking underlying mental problems, teachers can help these students to acquire the necessary prerequisite knowledge and skills. Can this student move on to fractions? Does that student understand the logic behind the experiment?

Instruction, then, should focus on where the student is now, and the use of appropriate methods to match a particular level of competence. If possible, have students with learning disabilities work with expert peers who guide their efforts and carefully structure the environment for them. This strategy may help these students to adopt regulatory and structuring activities of their own. If it is successful, you will have provided considerable social support for students with learning disabilities.

3.10 Mental Retardation

Much of the dramatic change in our thinking about exceptionality can be traced to the relatively recent surge of interest in mental retardation. After decades of neglect, the public has willingly supported programs designed to educate, rehabilitate and care for exceptional children, a large number who have mental retardation.

The topic of mental retardation has been of great interest to scientists and practitioners for many years. It is also an area of exceptionality where there has been considerable controversy in definition. The main complication in defining mental retardation has been the fact that two professional groups have produced differing definitions and classification manuals. The American Psychiatric Association (APA, 1994) classifies mental retardation as a developmental disorder. The American Association on Mental Retardation (AAMR, 1992) has produced a definition that has been quite controversial in the field of psychology and education. Definitions of mental retardation consider both the intellectual potential of the individual as well as the adaptive behaviour dimensions.

Hodapp and Dykens (1996) provide an overview of the main definitions of mental retardation. We have also added the definition recently produced by Division 33 of the American Psychological Association and

reviewed in detail by Jacobson and Murlick (1996). A lot of controversy surrounds the 1992 AAMR definition, especially the over-representation of individuals with mental retardation with this definition.

Thus, the current definitions of mental retardation consist of a multidimensional approach that is designed to broaden the traditional ideas of mental retardation, to reduce or avoid sole reliance on the use of IQ scores to assign a disability, and to include an individual's level of support (how much support a person needs to live in their environment). The evaluation of support is designed to focus on the level of needed services. The team (for example, school psychologist, school nurse, special education teacher).

Common Problems of Students with Cognitive Disabilities

Mental retardation can result from many causes: genetic, perinatal, postnatal and cultural. These general categories encompass specific causes such as PKU (Phenylketonuria), rubella, oxygen deprivation at birth, brain injury, drugs and economic deprivation. You should remember that in spite of having limitations in reasoning and problem solving, students with mental retardation have the same basic needs as typically developing peers and demonstrate considerable individual differences.

Mentally retarded children will have difficulties at specific levels of learning. Among the more common problems are the following:

- Attention, which may be both limited and nonselective.
- Cognitive processing, especially with regard to organization, classification and strategies.

4.0 Conclusion

Adequate understanding of the nature of the disability of an individual is essential to proper management of the client hence your knowledge of the categories of disability in the helping and caring profession will equip you for a better service delivery.

5.0 Summary

This unit has covered various categories of disability; it is advisable you go over thoroughly for better understanding so that you can assist all individuals needing your care/help.

6.0 Tutor Marked Assignment

- A. List four (4) categories of disability.
- B. Give two (2) examples each of the categories mentioned in A.

7.0 References / Further Readings

Adeshina, S. (2001). *Disabilities: A Practical Handbook for All People*. Ilorin: Rajah Dynamic Printers.

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Unit 4: Causes of Disability

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3.0	Main Contents
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1.0 Introduction

In the last unit, we studied various categories of disability. This unit will center on the causes of disabilities which can be looked into from two perspectives i.e. Congenital/hereditary and Acquired. It is my desire that your knowledge will be enhanced with this unit and better prepared to meet the changing demands of health sector.

2.0 Objectives

At the end of this unit, the learners must be able to:

- enumerate the two (2) major causes of disability.
- discuss with examples the two (2) major causes.

3.0 Main Content

3.1 Congenital/Hereditary

These can also be divided into two:

(A) Pre-Natal Causes

Genetic/Hereditary causes: This refers to abnormalities of the genes of chromosomes. They can lead to the following genetic conditions:

- (a) Down's syndrome.
- (b) In-born error of metabolism e.g. Phenylketonuria.
- (c) Microcephaly.
- (d) Muscular dystrophy.
- (e) Sickle cell.

(B) Congenital Causes

These are those factors, which may affect the already formed child in the uterus, especially during the first trimester. They are referred to as environmental causes. These include:

- (i) Drugs such as Thalidomide.
- (ii) Infection such as malaria, German measles etc.
- (iii) Maternal antibodies.
- (iv) Maternal Toxaemia.
- (v) Dietary factors.
- (vi) Irradiation.

3.2 **Acquired/Secondary**

These too can be subdivided into two:

(A) Peri-Natal or Natal Causes: These are the defects due to complications of delivery which can cause handicap, examples include:

- Trauma
- Fetal anoxia due to either maternal haemorrhage or cord prolapse.
- Hypoglycemia.
- Respiratory or metabolic acidosis.
- Birth asphyxia.

(B) Post-Natal Causes: These are the causes of handicap after delivery e.g.

- Infection such as measles.
- Trauma.
- Poisoning.
- Electrolyte imbalance.
- Old age.
- Malnutrition.
- Irradiation etc.

4.0 **Conclusion**

Disability often affect individual's capacity to achieve personal, economic, independence and intellectual ability which is normal for his/her peers so the necessity of understanding the causes of disability as this will guide in early identification and management of disabilities.

5.0 **Summary**

In this unit, we have learnt about the two principal causes of disabilities and no doubt, this knowledge will assist you in the following units.

6.0 **Tutor Marked Assignment**

List the two major causes of disabilities and mention four (4) examples each.

7.0 **References / Further Readings**

Adeshina, S. (2001). *Disabilities: A Practical Handbook for All People*. Ilorin: Rajah Dynamic Printers.

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Unit 5: Prevention and Management of Disability

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1.0 Introduction

Briefly reflecting on the past units, we have studied historical perspectives of disabilities, various definitions of related terms, categories of disability and causes of disability. In this unit 5, we shall be looking at various preventive measures of disabilities as it is said that prevention is better and cheaper than cure and even cheaper at the long run. Happy studying.

2.0 Objectives

At the end of this unit, the learners should be able to:

- list at least five preventive measures of disability.
- discuss in detail two (2) of the preventive measures mentioned above.

3.0 Main Content

Disabilities are better prevented than otherwise as it is a great task to treat or rehabilitate the individuals with any disability. The burden of disability to the individual, families, society and nation at large is enormous, hence so preventive measures must be aggressively pursued so that our society can be healthy and individuals can be self-reliant rather than being a dependant. The following preventive measures are available:

3.1 Prevention of Disability

1. Health Education: of the members of the community on the causes of handicap and what can be done to prevent each cause e.g. home accident, road traffic accident, occupational hazards etc.
2. Genetic Counselling: on hereditary diseases and genetics should be given that people with familiar diseases should not inter-marry etc.
3. Marriage Counselling: this is done to educate couples on the problems of blood incompatibility, needs for child spacing or small family size so as to reduce economic burden on the family and to prevent malnutrition.
4. Measures aimed at Preventing RTA: includes campaigns, road signs, prompt removal of road traffic victims to hospitals and clearing of vehicles.
5. Screening of the Mothers: history taking on previous pregnancies, labour and puerperium, this helps to diagnose promptly and give advice to the mother by the midwife.
6. Laboratory Test of Blood and Proper Screening of Pregnant Women: Check the rhesus factor of the mother, blood group and genotype then, you should advise that blood genotype AS should not marry AS or SS for the risk of having children of blood genotype SS. A rhesus negative mother should be advised with regards to her pregnancy and delivery. Blood screening. Pregnant women with polyhydramnious should be investigated as she is prone to having congenital malformed babies. Liquor amnii should be sent for chromosome studies. If abnormality is discovered, termination of the pregnancy is advised.
7. Immunization: this is given to the appropriate age groups to prevent some preventable diseases such as poliomyelitis.
8. Use of Anti-D Gamaglobulin: To prevent haemolytic disease of the new born RH negative mother.
9. Appropriate Booking: Pregnant women especially those with risky health condition mothers and babies must be properly booked into the right institutions that could cater for their needs.
10. Extra Care During Labour: to prevent conditions like birth trauma, asphyxia etc.
11. Adequate Information on Use of Drugs and X-rays: Pregnant women must be well informed as to the use of drugs and x-ray to prevent fetal abnormalities.
12. Intelligent Test: Intelligent Quotient test.

Example:

$$IQ = \text{Mental age} \times 100 / \text{Real age}.$$

A child of 10 years, whose mental age is that of 12 years old

$$\begin{aligned} \text{IQ of this child} &= 12 \times 100 / 10 \\ &= 120\% \end{aligned}$$

A normal child should have an IQ of 100% while a gifted child should have more than 120%.

An IQ of between 120 to 125 is a very brilliant child.

115 to 120 is a bright school child.

90 to 115 is an average school child.

80 to 90 is a retarded school child.

55 to 90 is an educationally sub-normal (moderate) child.

Less than 50% is a severe educational sub-normal child.

The above ranges are just guidelines as exceptions occur in grouping.

3.2 **Management of Disability**

The management of an exceptional child differs from the handicap child.

Gifted children: To these groups of children, special performances are given both nationally and internationally. Scholarships are awarded to them this is to enable them to face the right challenge that is commensurate to their IQ level.

All handicap children must be carefully assessed as regards their potentials i.e. to know where they fix in either to refer them to special care centres for advise and proper rehabilitation centres.

Provision, utilization of facilities and rehabilitation of handicap in the community

These includes all measures aimed at reducing the impact of disabling and handicapping conditions and at enabling the handicap to achieve social integration and to become independent as much as possible. This is often achieved by encouraging and or stimulating the use of residual abilities of the client, both the client and his family must be involved during rehabilitation process, planning and implementation of the programme. This programme should be a continuous process commencing as soon as the client get out to the appropriate centre as delay could be dangerous. The health groups that are responsible for these cares are the Nurses, Physiotherapists, Doctors, Occupational therapist, Speech therapists, Clergymen, Clinical psychologists and Dietetics etc.

The provider of facilities is:

1. The department of health and social security are centrally responsible for the community, social services for the disabled.
2. The LGA provide aids and advice to the handicapped and family.
3. The well wishers and philanthropists.

3.3 **Rehabilitation of Disability**

1. Prompt Assessment: Prompt detailed assessment of the level of impairment, disability and handicap by a team of experts as mentioned above. This is often hindered by lack of diagnostic equipment in developing countries.
2. Corrective Measure: This is aimed at restoring the client's physical and emotional impairments to the level that he can be useful to himself and to the society. Following corrective measures, he may be able to carry on with his former job or if necessary, learn a new job depending on his residual ability.
3. Curative Measures: These measures can be medical or surgical and it is aimed at correcting or limiting the deformity e.g. cosmetic surgery.
4. Educational Treatment: This is usually carried out in special schools for the handicapped or unit for handicapped children within the normal school setting (primary or secondary). In these type of schools, special provision is usually made, for the different categories of handicapped children, such as the blind, deaf, the mentally retarded and the physically handicapped respectively. The teachers often receive special education, which enable them to handle special problems of the children. Depending on their special needs and amount of resources available, special equipments are often made available to facilitate teaching and learning process e.g. toys, charts, Braille books for blind children, hearing aids for the deaf, walking sticks for the blinds etc. The child's mental age or level of ability and his chronological age is usually taken into consideration, especially for those having mental retardation.
5. Vocational Training: These are centres where disabled people can acquire some skills, such as knitting, basket making, sewing, shoe repairing, poultry keeping etc. which can provide them with job opportunities especially self-employment. The skills being acquired in vocational training centres do not often require mental ability, otherwise the aim will be defeated.
6. Provision of Employment: In order to reduce the social problem of street begging, the disabled people must be settled to a job after being discharged from the hospital or rehabilitation centre. In pursuance of this, he/she must be given the opportunity to acquire the skills before being discharged and not only that, his progress must be monitored. In developed countries, there are resettlement officers who are responsible for fixing disabled people to a job (self-employment, government or private jobs). In some countries, in order to secure enough job for the disabled people, it is stipulated that for every 100

people employed, there must be 2 suffering from one disability or another.

Secondly, in some advanced countries, certain jobs are specifically reserved for the disabled people, such as car park attendant, lift operators, telephone operators etc.

Thirdly, employment registers are often made available to monitor the rate of unemployment among the disabled people in some developed countries.

7. Designing and Producing of Special Gadgets: In order to assist disabled people to function independently, some public and private companies are specialized in the production of special gadgets for the disabled e.g. wheel chairs, walking sticks, special cars, lifts, prosthesis, beds, tricycles etc.

8. Centre for Guidance and Counselling: This type of centre should be made available for the use of the handicapped people and their family. A team that can handle the different problems of handicapped people including physical, mental and socio-psychological problems should man them. The team must include Public Health Nurses, Doctors, Midwives, Social Workers, Clinical Psychologists, Clergymen and Physiotherapists etc.

Note: In developing countries, there are so many factors, which hinder the education of and the training of the handicapped children. These include:

- Lack of resources, such as specialist teachers, equipments, classrooms, residential accommodations, money etc.
- Other problems are ignorance on the parts of the parents and the community to bring out their children for training and
- Lack of commitment by the government.

Counselling Services

- The health-worker must be sensitive to the child first then the handicap second. This will enable the health-worker to respond to the handicapped child with spontaneous and genuine interest than misplaced sympathy.

- The counselling is getting the counselee to accept, participate in planning and finding a way of helping himself.

- There must be conducive environment for the counselee e.g. privacy.

For mongolism: identify where the hereditary disease comes from and counsel the parents on family planning at least when couples reaches the age of 45 years and above their offspring are likely to have this condition. So there must be mutual understanding between couples.

- Parents should be told as soon as the diagnosis of any handicap is confirmed especially mental subnormality. It is usually a critical period of the life of the parents. Although they may not hear or remember all that is said to them, since there will certainly be a period of denial, rejection, acceptance, hope or despair so the informant must be tactful and be understanding towards the counselee at this stage. The informant must honestly convey the information without pronouncing himself/herself the omnipotent curer. The nurse/counsellor must emphasize the need for the parents to be together when they are informed of their child's condition, thus avoiding the problem of one parent having to interpret complex findings and deal with the initial emotional reaction of the other. It also gives the nurse/counsellor an opportunity to observe the interaction between the parents as they are confronted with the tragedy of discovering a handicap as a child. Some parents will reject the child and insist that it should be kept in the hospital or transferred into an institution.

A sympathetic understanding attitude on the part of the medical staff will help to lighten the problem. The mother has to understand that the child needs a long period of prolonged dependency.

4.0 **Conclusion**

Consider the untoward effects of disabilities on the individuals, families, society and nation at large, everyone should exhibit concerted effort in ensuring adequate preventive measures of disabilities to have healthy individuals in the society in order to have a healthy nation and not a disabled individuals leading to a disabled nation.

5.0 **Summary**

This unit covers the prevention of disabilities. I am sure your knowledge has been enriched in all ways and you are better equipped to fight disabilities from preventive point of view.

6.0 **Tutor Marked Assignment**

List and discuss five (5) major preventive measures of disabilities in Nigeria.

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MODULE 2: SPECIFIC DISABILITIES

Unit 1: Deafness

Contents

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- 1.0 Introduction**

In the last unit (unit 5), we ended the Inventory Module with preventive measures for disabilities. This module will now concentrate on specific cases of disabilities. You should be able to learn a great deal in this unit for effective and efficient management of specific cases of disabilities. The first case that this unit will deal with is deafness. Happy studying and do enjoy yourself with the information in this unit.

2.0 Objectives

At the end of this unit, the learners should be able to:

- define deafness.
- state early signs of deafness.
- discuss the prevalence of deafness.
- explain factors that may lead to deafness in children.
- state the methods of communication with the deaf.

3.0 Main Content

3.1 Introduction

Some psychologists, notable among whom are Ednas, Levine and Helmer Myklebust, have attempted to portray in words the lamentable fate of a child born deaf. According to Levine (1960), the tragedy of DEAFNESS IS THE FACT THAT IRREVERSIBLE HEARING LOSS CAN OCCUR at the most crucial period of life such as early childhood and can be so damaging that “it deadens the most powerful developmental stimulus of all, the sound of the human voice”, she goes further to describe the pitiable state in which a profoundly deaf child finds himself. “Not to hear the voice is not to hear spoken language”. Not to hear spoken language means that a preverbal deaf child will remain in complete ignorance of this basic verbal tool for human communication and communion unless extraordinary measures are taken to teach him that there are such things as words, what words are for, how sounds and how verbal language is applied not only to objects, people, activities and the like, but to all aspects of living, feeling, thinking and reasoning. Without such highly technical instruction, the small, profoundly deaf child would be doomed to go through life, “a completely non-verbal being, unable to enter into any verbal communication with others, any verbal deliberation with himself, nor make any significant contact with the knowledge, customs, culture and climate of the civilization into which he was born”.

The effects of deafness are so pervasive and destructive that they interfere, not only with the child’s education, but with his emotional adjustment and personality organization. Many deaf individuals have been mistaken for morons and idiots, simply because they could neither comprehend nor use verbal language other labels used for such individuals

include “immature”, “aggressive”, “disobedient”, “withdrawn” and “deaf-mate”.

It is not only the deaf child or adolescent that suffers the consequences of deafness, but his parents and close relatives as well. It is a universal fact that many parents have problem in adjusting to their deaf child disability. In developing countries, deaf children are found in homes where they are permanently subjected to undisguised hostility, neglect and even cruelty, than are found in developed worlds where they are accepted, loved and provided with a healthy environment by their parents and relatives. Frequently, the bad situation is compounded by superstitious beliefs which ascribe deafness to punishment by vengeful ancestral gods.

The presence of a deaf child in a family may also give rise to increased responsibilities on the part of the parents who are frequently ill-equipped to shoulder such additional burden. In addition, lack of experience with deafness, uncertainty about the part they must play as parents and feeling of guilt or shame about having a deaf child, may seriously damage relationships between the parents.

There is, however, a brighter future for deaf children and their parents at present, than a few years ago. Many schools and programmes have been established for deaf children in many states in Nigeria. In quite a few states, integration of hard-of-hearing children with their normal peers in regular primary and secondary schools is the rule. Although, this is largely being carried out without the supportive services that make mainstreaming work in advanced countries, at least, many more deaf children than ever before are finding themselves in educational environments.

3.2 Definition

There are many terms often used interchangeably in describing people with deafness. These include: the deaf, auditorially-handicapped, hearing defective, acoustically handicapped, of-hearing, congenitally deaf, adventitiously deaf, pre-lingually deaf and many others. Some of these merely describe the degree of hearing while others are concerned with the time of loss in relation to language development.

Professionals connected with the deaf are prone to classify deafness from the standpoint of their specialty. Thus, medical classification of deafness may focus on the pathology, while educational classification is concerned with the time of deafness and the degree of hearing loss sustained. These diverse classifications notwithstanding, there are certain definitions of deafness that are universally accepted. One of the earliest attempts at defining deafness was made by “the committee of Nomenclature of the Conference of Executives of American Schools for the Deaf in 1938”.

According to the committee, the deaf are those in whom the sense of hearing is non-functioning for the ordinary purpose of life. The committee also defines the hard-of-hearing as “those in whom the sense of hearing, although defective is functional with or without a hearing aid”. It also described two categories of the deaf:

- a. The congenitally deaf, refers to those who were born deaf.
- b. The adventitiously deaf, that is, those who were born with normal hearing but for whom the sense of hearing become non-functioning later through illness or accident.

3.3 Early signs of deafness

Many people including parents and teachers have difficulty in detecting early signs of hearing problems in children. Thus, a child's deafness may go unnoticed for months or even years, until it gets so bad that the child no longer understands what is said to him, unless the speaker raises his voice or repeats what he says. Deafness is a hidden disability and one can only know that a person is deaf when that person demonstrates by his inability to answer or fails to respond appropriately to a simple question. It is important that parents and teachers know the early observable signs of hearing difficulties because some kinds of deafness can be arrested or even cured, if detected early enough, some of the signs that may indicate that a child is not hearing normally include:

1. Not responding to or confusing verbal directions.
2. Showing no surprise or being startled in situations that would normally evoke such response pattern.
3. Rubbing the ears frequently or turning the head in one direction as if trying to locate a sound.
4. Complaining of a ringing or buzzing sound in the ear.
5. Not responding when called from a distance.
6. Requesting a person speaking to him to repeat what he has said; or being slow in answering a simple question.
7. Complaining of discharge from the ear.
8. Flinching or bending forward in order to hear or understand what is said to him.
9. Gazing at the lips of a person speaking to him instead of the person's eye.
10. Misarticulating simple words.
11. Complaining that a normal sound or noise is too loud.
12. Avoiding situations that may require him to listen or talk.
13. Speaking in abnormally low, high or loud voice.

14. Making a response only when he sees the speaker's face or gesture.

If these signs are observed frequently and over a period of time, then there is the need to take the child to the hospital for medical examination which may be followed with hearing tests, where possible.

3.4 Prevalence of deafness

Deafness ranks among the leading causes of chronic disability in Nigeria. It is estimated that one person in every one thousand people has a serious hearing problem. If there are approximately hundred million Nigerians, then about hundred thousand of these suffer from severe hearing loss. It is also estimated that 15-18 percent of the general population comprises school-age children. Thus, if there are 18 million school-age children in Nigeria, not fewer than 18,000 have a serious hearing loss in both ears to the extent that they can not hear and understand spoken words. (In other words, there may be 100,000 profoundly deaf persons in Nigeria of whom, about 18,000 are of school age. Additionally, there are thousands of others who are mildly or moderately deaf in one or both ears. It is believed that the proportion of people with hearing defects is increasing but of technological advance has made it possible for physicians to save more babies who are born pre-maturely or have difficult births. Quite a few of such babies have hearing disorders. Another factor contributing to incidence of hearing defects is exposure to industrial noise. More factors are being established and many more people are being employed as factory workers or as airport personnel. Finally, increased life span resulting from better healthcare means that many more people are living into old age which frequently brings with it deafness. Against these contributing factors, are such other factors as results of research studies which have enhanced preventive measures, early diagnosis and treatment of hearing disorders all of which have tended to reduce the incidence of hearing problems. Factual estimates of prevalence of deafness may be expected to vary widely on account of the method of testing used, kind of instrument and conditions of testing. Additional source of variability has to do with the differences inherent in the definitions of deafness.

For unexplained reasons, it is believed that there is a ratio of one blind person to four deaf persons. There is no sufficient scientific information as to why this is so, however, this phenomenon seems to be very correct and this explains why we have more than four times the number of deaf students than blind students. The general public may not be aware that there are more deaf people than blind people, because the disability of deafness is hidden and may not be noticed, while the disability of blindness is conspicuous and noticeable.

To understand some of the causes, we must first understand how the ear functions. The ear is made up of three sections. When sound waves strike the outer ear, they are funneled to the eardrum by the ear channel. The drum is connected to three tiny bones in the middle ear. The vibrations of the drum are transmitted to these bones which in turn passes through to the fluid in the delicate inner ear. This causes electrical impulses which correspond with the sound waves which first enter the ear.

The ear is a very delicate and sensitive organ. It can tolerate a sound level 100 million times greater than the smallest sound it can effect.

3.5 Causes of Deafness in Infants

These may conveniently be divided into those occurring before birth and those after birth.

Infant Deafness occurring before birth

(a) Genetic: Defects of the internal ear and of the nerve at hearing may be inherited from forebears having such defects themselves. On the other hand, parents who have normal hearing themselves may some times bear a deaf child by means of what are called “recessive” genes, which are responsible for hearing defects only if they are combined with similar defective recessive genes in the other parent. In the normal hearing population, there is no way of knowing which individuals carry these faulty recessive genes.

(b) During pregnancy: Noxious influences on the developing foetus may be caused by infections suffered by the mother, particularly virus infections and rubella is the outstanding example of a virus infection having this effect. However, influenza and most other virus infections can, under appropriate circumstances damage the foetus, including its hearing. Also, some medicines taken by mother e.g. antibiotics such as streptomycin and even such common substances as aspirin in large doses, can damage the hearing of the foetus. Heavy smoking by the mother during pregnancy is being looked at increasingly as a likely factor contributing to deafness before birth.

Maternal bleeding, particularly during early pregnancy suggests that the integrity of the pregnancy is being threatened,. This can damage the foetus and thus affects hearing . Toxaemia in pregnancy marked by a rise in maternal blood pressure and increased weight, may have a similar effect.

In general, noxious influences acting early in pregnancy tend to be more damaging than those acting later on. The first eight weeks is the most critical period.

(c) Delivery: Any circumstances during the birth of the baby which decreases its oxygen supply may damage its sensitive nervous tissues, including those concerned with hearing. All the obstetrical complications

which can occur during delivery are potential hazards in this regard. Mechanical obstruction of the umbilical cord is an obvious example.

In a discussion of this type, it is important not to get the possibilities out of proportion. Many of the things that could possibly damage the foetus are quite common, but it would be wrong to assume that such damage often occurs even when one or more possibly damaging factors are operative. The opposite is the case, experience shows that despite all the genetic defects and despite everything that may happen in pregnancy and during labour, only about one baby in 1,000 is born with a serious hearing defect.

Infant Deafness occurring after Birth

- (a) Trauma: Severe head injuries may damage those nervous structures concerned with hearing, in the same way as they may damage parts or the nervous system sub-serving other functions.
- (b) Infection: Serious infections, particularly those involving the brain and associated structures, may cause post-natal hearing losses. In this regard meningitis is the outstanding example, particularly tuberculous meningitis. The mumps virus often damages the internal ear, but fortunately in most cases, only one side is involved.
- (c) Intoxications: All the substances taken by the mother during pregnancy can damage the foetus, and when given to the infant, have a similar damaging effect on hearing. Streptomycin, particularly when given as a life-saving measure in tuberculous meningitis is a very noteworthy example.

Gaps in knowledge exist in the understanding of the causes of deafness in infants, and this is the chief stimulus for the continuing activity, which many people are undertaking and must continue to undertake in this field.

3.6 Factors Affecting the Development of Deaf Children

Many psychologists in the field of deafness have insistently called attention to the fact that defective hearing creates barriers to the general development of the hearing-impaired, bringing about retardation and personality problems. Early severe hearing loss deprives the afflicted person of the ability to learn naturally the language of his culture through hearing. Inability to understand and use the common language, in turn, robs the hearing impaired individual of a necessary tool for "human communication, inner enrichment and clear mental perception", thus, he is handicapped in the acquisition of information from a wide range of sources in the modern world, including social intercourse, radio television etc.

Several studies have shown that persons born deaf and those who lost their hearing early in life are, on the whole not as socially well-adjusted as those who were born with normal hearing capacity. Myklebust (1964) has

pointed out that a deaf person has a different sensory experience, giving rise to a different basis for all other experiences, including the way he uses his intelligence, his social maturity level and personality adjustment. It is a fact, however, that no two individuals are alike in every respect or react in a similar situation. This is as true for the hearing person as for the deaf. It is therefore necessary to consider some of the factors that affect the development of a deaf person and the way he acts or reacts to a situation. The following variable identified by Edne Levine (1960) are noteworthy.

1. The Home and Family: There is a great deal of research evidence to show that most deaf children are born to normal hearing parents. This is even more true of Nigeria than of Europe and America, because heredity as a cause of hearing impairment is insignificant in these countries. Diseases and accidents are primary causes. Negative attitudes towards disabilities are very pervasive, being based on traditional superstition beliefs. Action of parents of a deaf child are influenced by the prevailing attitudes, which in most cases are negative and discriminatory. Thus, most deaf children are either socially isolated by their family or over-indulged by parents who have never come to terms with the idea of having a handicapped child. In turn, the seemingly unwarranted hostility to the deaf child in his own home, affects his emotional well-being to the extent of making him feel isolated or to isolate himself from the rest of the family. In the long run, he may become anti-social, retarded and maladjusted.

2. Socio-Economic Factors: A deaf child who comes from a well-to-do family where most of the necessities of life are provided may be expected to learn a great deal from such things as the television, furniture, appliances and even the highly placed people who visit his home, unlike his counterpart whose parents are poor and have few belongings. This second youngster may not even be well fed or provided with enough clothing.

3. Health Status: Permanently, poor health of a child with serious hearing impairment is likely to make his hearing handicap much more difficult to bear. Research shows that in many cases, deafness is not the only health problem of the deaf child. Other difficulties (though less evident or serious) may stem from the same source as deafness and these may compound the problem of hearing loss.

4. Community Climate: Nigeria, presently has educational programmes for deaf children, therefore education of deaf children is no longer a novelty. Attitudes towards deaf persons are also changing for the better, through public enlightenment. But in many of our neighbouring countries where there are no educational programmes, deaf individuals are still subjected to disdainful treatment by the community in which they live, due to general

ignorance of their capability. Thus, the community climate can be motivating or depressing to the child.

5. Cause and Time of Deafness: The cause and time of hearing loss often determines how serious or pervasive the effects will be. Deafness caused by infection of the mother of the deaf child during pregnancy is likely to be severe or almost total, unlike deafness resulting from some minor illness like measles or cold. Again if deafness occurs before or during birth or a couple of years after birth, it is said to be pre-lingual and the affected child may be unable to develop speech and language naturally unless he is painstakingly taught. Deafness occurring at the age of four years and above, after language and speech have been established, is less serious in terms of speech and language development.

6. Amount of Residual Hearing: It has been well established that most persons have residual hearing. However, sometimes this residual hearing is so slight that the deaf person cannot benefit from it, even when he wears a powerful hearing aid. The word benefit is used here to mean understanding of speech through learning. Apart from this, many deaf individuals who have little residual hearing, wear hearing aids in order to hear environmental noises which make them feel they belong to the same hearing world. On the other hand, those who are moderately deaf, or just hard-of-hearing, can use hearing aids to advantage; especially, if they had some auditory training. Thus, they are enabled to learn speech and language naturally, through hearing. This means that the amount of residual hearing which a deaf child has determines whether or not he learns speech and language in natural way, assuming that he has lost his hearing pre-lingually. Ability to (understand) and use speech and language proficiently can enhance academic performance and social/emotional development of the deaf child.

7. Types of Deafness: A hearing-impaired child might be suffering from one of the principal kinds of deafness, conductive, perceptive, central, mixed and psychogenic deafness. Conductive deafness can be successfully treated with antibiotics. The outer or middle ear infection in mixed deafness can be eliminated so that the remaining sensori-neural impairment is rendered less serious, psychogenic deafness being personality problem, is also amendable to treatment by psychiatrists. If a child is afflicted with one of the curable kinds of deafness, the chances are good that he can be successfully treated, to the extent that effects of deafness on his development are eliminated or minimized.

8. Beginning Age for the School and Type of School Attended: The sooner a deaf child begins school after the onset of deafness the greater the possibility of his achieving approximating normal childhood development.

But at the onset of deafness in this country, most parents are too upset and disorganized to think of school placement. Instead, they run from pillar to post in a vain effort to find a cure for the child, until it is almost too late to send the poor child to school. Generally, deaf children remain longer in school than their hearing peers. This is partly due to the retarding effects of deafness. Therefore, the earlier the admission and the longer the child stays in school the better.

9. **Method of Instruction and the Suitability of Curriculum:** Nigeria is happily free from the “method controversy” that has plagued education of the deaf since the days of Charles Michael Abbe del’Epee of France (fondly remembered as the father of the Manual Method) and Samuel Heinick of Germany (the father of the Oral Method). Most deaf schools in Nigeria use speech, finger-spelling, signs and lip-reading, simultaneously. Therefore, the difference in performance between any two schools for the deaf in Nigeria cannot be attributed to differences in methods of communication or instruction, but rather to such other factors as the quality of the teaching staff, the facility with which they communicate with their children using the total communication approach, availability of equipment etc. All our schools for the hearing-impaired accept the use of signs, finger-spelling and speech, although some schools are more adept of signing and finger-spelling than others.

The curriculum followed in nearly all schools for the hearing-impaired is the same for School Learning Certificate Examination taken by hearing pupils. The fairness of this system has long been questioned in view of the language retardation of most deaf children, especially the prelingually deaf.

10. **The Length of Time in School:** Most deaf children begin school late because their parents wasted time in an effort to “make the child normal again”. There are also few pre-primary schools for the deaf. When the language difficulty of deaf children is added to these problems, it is easy to see why deaf children should remain in school much longer than their hearing peers.

In summary, these are but a few of the many factors that make no two hearing-handicapped children alike in every respect. Therefore, in every educational planning for the hearing-impaired, these factors should guide the planners or teachers in determining the individual needs of each child and how these needs can be met on an individual basis.

3.7 Method of Communication of the Deaf

Early severe hearing impairment deprives its victim of natural ability to communicate meaningfully through the use of speech and language and

without this ability, the hearing-impaired child lives in a silent, isolated world of his own. He sees the same things that others see, but frequently he forms enormous concepts about these common experiences. He can neither ask questions to clarify his ideas nor can he understand others around him who may want to explain things to him. Thus, much emphasis has been placed on the development of early meaningful communication in the management of hearing-impaired children. Some people feel that deaf children in their quest for means of communication should be limited to speech, lip-reading and the use of any residual hearing they may still have. Many parents agree with these authorities. But other people advocate the use of manual signs and finger-spelling in addition to speech, lip-reading and audition. They insist that the most important thing is to help the child to acquire some form of language as early as possible, to facilitate correct mental perception, communication and sensory explorations. Therefore, effective management of hearing-impaired children demands that early attention be given to their communication language development and also to social and emotional adjustment, especially those who have severe hearing efficiency. Thus, it is necessary that we briefly consider the implications of these factors.

Manual Communication or Gestino: This is made up of finger-spelling, manual signs, gestures and pantomimes (dramatization). In the American System of finger-spelling, the alphabets are out on the fingers of one hand. The English system utilizes both hands, but the essence of finger-spelling is spelling out words, phrases and sentences in the same way as they might have been written down on paper. Manual signs, however, consist of making hand movements or gestures to give some idea of what meaning the signal intends to convey to the person watching. Sign language is probably as old as the history of deafness itself, but was systematized in the 18th century in France, by Charles Michael Abbe del'Epoe. Finger-spelling and sign language are very popular with deaf adult and in schools for deaf children which allow their use. Researchers on deafness, notable among whom are Richard Brill, Maccay Vernon, Stephen Quigley, Robert Frisina, Hilde Schlesinger and Kathryn Meadow maintain that early use of manual communication with deaf children facilitates better academic performance, command of language and adjustment of deaf children.

Lip-Reading: This is the process of understanding what the speaker is saying by attentively watching his lips and face. It involves the use of body and facial clues together with other clues arising from the communication situation, to help the speaker-reader understand speech. The importance of lip-reading is that it enables a hearing-impaired person to understand

thoughts of others, expressed in verbal speech to him. It is believed that loss of hearing acuity fosters in the hearing-impaired, increased attention for the development and reliance on the other senses (Moore, 1978). However, lip-reading is a complex process that is not easily learnt. At best, it involves a filling-in process because there are many words that appear alike on the lips but means different things. Many other words are not visible at all on the lips.

Auditory Training: Research findings indicate that many hearing-impaired persons are not totally deaf. Most have residual hearing which can be trained to enable them understand speech aurally, with or without the use of hearing aids. Thus, auditory training has become an important factor of education of hearing-impaired children. It involves teaching the child to recognize sounds and to make the most of the little hearing he still has. Auditory hearing entails constantly exposing the deaf child to sounds and language in his environment and also providing him with some kind of amplification, that is, hearing aid. Before a hearing-impaired child is allowed to wear a hearing aid, he is tested on the audiometer to determine the extent of his hearing deficiency and the kind of aid likely to help him most. A good hearing aid must provide adequate amplification of sound and ensure comfort for the wearer. It must also reproduce sounds without distortion. The experience of most wearers of hearing aids in Nigeria is one of frustration. There are no local physician to adjust or repair the hearing aids when they are out of order or require minor adjustments. It is not easy to obtain regular supply of batteries or to have the earmolds custom made locally. Finally, some unscrupulous hearing aid dealers charge prohibitive prices for the aids and for audiological services commonly rendered free of charge in some countries.

Speech: Most hearing-impaired children are capable of producing intelligible speech as nothing may be wrong anatomically with their speech organs. In fact, mutism is one of the consequences of deafness. There are, however, a few hearing-impaired individuals who also have such associative problems as cerebral palsy and cleft palate. Such people may have trouble producing speech or sounds, even with the best of speech therapy. Speech training usually involves helping the child through visual stimuli to perceive and produce sounds. Later, these sounds are combined to form meaningful words. Training is also given to help the child produce good voice quality and proper articulation.

Language Training: It is generally agreed that the greatest need of the deaf child, especially the profoundly and the congenitally deaf, is language development. Edna Levine (1967) stressed this when she pointed out that

early severe hearing deficiency deprives the afflicted of the natural ability to acquire verbal language which impedes normal development. To help the deaf child learn language, specialized instruction and techniques must be started early with the child. Even before the child attains the pre-school age he should have been exposed to language in natural situations in his home environment. Misguided parents make meaningless signs to their child instead of speaking to him in a natural way, employing situational clues to help him understand what they are saying. The result is that many deaf children brought up in homes where they have received no language stimulation, come to school sometimes not earlier than the age of six or seven years, without knowing that, things and people have names or that they themselves are called by names. To give a remedy to such a deplorable situation, the teacher must employ various methods including dramatization make-believe games, pictures, educational trips, contrived language-evoking situations etc., to teach the child through visual, tactile means and by the use of his residual hearing, names of people, things and activities. In due course, he learns to express himself in simple language and to understand that things have quality and words have shades of meaning.

There are two principal approaches to teaching languages to the deaf, one is the natural method which exposes the child to a natural situation (such as cooking a rice meal) and then he is provided with appropriate words, phrases and sentences used in such situations. The success of this method depends largely on the teacher's ingenuity, resourcefulness and ability to motivate the child to want to use language to express himself. The second method of teaching language is what has been called the structural approach. This employs a series of language "keys" originally developed by Edith Fitzgerald, an American deaf teacher who taught the deaf. The main aim here is to help the child organize his vocabulary in a proper linguistic order to express his ideas. The method begins with the classification of commonly used nouns into two groups.

Who, What e.g.

Who	What	Who	What
Bola	A goat	Father	A spoon etc.

Next, these nouns are used with action verbs and the sentences are first dramatized by the children before they are reported in the past tense and placed upon the language key.

Who	What	Who/what	
	= (verb) The goat ran	= (verb)	= (verb)

Bola		Jumped the book	Caught
			Fell

Discuss the level by which the teacher of language can teach this to the deaf students.

The structure is progressively developed from the pre-primary level up to primary 6. The great advantage of this method is that it guides deaf children who have had little opportunity to learn language usage from a variety of sources through hearing, to make grammatically correct sentences with some key words that explain the meaning and indicate the correct order.

Social and Emotional Adjustment: Studies by Levine (1960), have often been cited to generalise that the hearing-impaired shows a greater degree of emotional maladjustment than their normal peers. Although they reveal no distinct patterns of emotional difficulties. Myklebust (1964) maintains that the hearing-impaired have “a feeling of severe isolation and detachment with aggressive, almost desperate attempts to compensate and thereby maintain interpersonal contacts”. However, Altshuler (1974) has pointed out that clinical studies of adult psychiatric patients has not shown a greater incidence of psychiatric illness among the deaf than the hearing. Deafness, being a serious sensory deprivation may be expected to affect or influence the way the hearing-impaired person sees or react to a situation. Misinterpretations leading to suspicious, distrust, avoidance or withdrawal may be seen as signs of maladjustment but these signs are not inevitable with respect to every hearing-impaired person. In other words, hearing-impaired individuals may betray signs of maladjustment, which are as diverse as the situations that evoke them or conditions under which the hearing-impaired live. Nevertheless, studies have shown that deaf children of deaf parents are better-adjusted, more matured and sociable than deaf children of hearing parents. This would seem to indicate the importance of acceptance by parents and the emotional climate of the home, as factors contributing to the general emotional stability of hearing-impaired persons, particularly, children.

Coping with the Frustrations of Deafness

Deaf people go through a lot of frustration everyday as a result of misconception and misperception on the part of the general public. The misunderstanding comes about because the public lacks rudimentary knowledge of deaf people. In order for the public to know how to deal with the deaf, there should be constant education and re-education of the public by special education professionals. The deaf persons themselves must be

sufficiently educated to adopt positive attitudes towards themselves by accepting their disabilities.

4.0 Conclusion

It is said that for unexplained reason, it is believed that there is a ratio of one blind person to four deaf persons. This incidence should be a subject of concern to all health service providers so that we are better equipped to reduce the alarming incidence of infantile deafness.

5.0 Summary

We have looked at definition of deafness, early signs of deafness, prevalence, causes, factors affecting the development of deafness in children and methods of communication with the deaf.

6.0 Tutor Marked Assignment

1. List the causes of deafness in children and adults.
2. Discuss the factors affecting development of deafness in children.
3. How can the deaf be communicated with?

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Unit 2: Blindness

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1.0 Introduction

In the last unit, we looked at deafness as a specific case of disability, no doubt you must have learnt greatly. This unit will focus on another specific case of disability which is blindness. A blind man is seen as the most educationally deprived disabled. Find this out in this unit. Happy reading.

2.0 Objectives

At the end of this unit, you should be able to:

- define blindness.
- classify blindness.
- enumerate causes of blindness.
- explain communication problems of the blind.
- discuss the career opportunities of the blind.

3.0 Main Content

3.1 Definition

The misuse of terms by workers in special education have often resulted in making a wrong provision for children with special needs. In the education of the visually-impaired for example, some people say “visually handicapped” when in actual fact, they mean to say “blind”. This writer has therefore considered it very necessary to explain some of these terms before going further into the subject.

The **visually-handicapped**: These include children who are totally blind, children who have low vision and children who are partially-sighted.

The **visually-impaired**: These include children who are visually-handicapped as explained above and children who are short sighted, long sighted or who suffer from astigmatism (an eye defect resulting in blurred vision).

3.2 Classification of blindness

In the past, it has been observed that most children referred to as blind in our special schools or regular schools are not actually blind but partially sighted. This calls for one to write a little more on these terms.

Blindness: A person is said to be blind if he cannot read or write printed matters after all optical corrective measures have been taken. He uses Braille as a medium for reading and writing. Lowenfeld (1971), however says that a child is blind if he has a central visual acuity of 20/200 or less in the better eye with correcting glasses. A visual acuity 20/200 means that the eye can see at a distance of 20 feet, what a normal eye can see from 200 feet. The term visual acuity means the sharpness and clarity of vision or the distance at which an object is placed so that it can be seen sharp and clear.

Children who are classified as blind can only find adequate educational provisions in special schools for the blind or specially equipped ordinary educational settings.

Braille is an embossed impression, made up of six dots contained in three cells. A combination of one, two or more of these dots will represent a letter, a word, a sentence or a phrase.

Numbers have conventionally been assigned to these dots. The following combinations could yield such results as:

Dot 1 stand alone means "A"

Dots 1 and 2 alone would mean "B"

Dots 1 and 4 alone would mean "C"

Dots 1, 4 and 5 could mean "D"

Dots 1, 2 and 5 with spacing before and after will mean "have"

Low Vision: For many years, visually impaired children have been classified under two categories, blind and partially sighted. In 1976, there was a new development when N. Barraga in her study found that 80% of children in special schools for the blind have some vision which could be developed and used effectively, especially in the area of mobility.

As a result of Barraga's findings, another group of visually-handicapped children emerged. These are the "low vision" children. Low vision children are visually-handicapped children who could rightly be said to belong to "no-man's land" in the sense that they are neither blind nor partially-sighted. Barraga, however defined such children as children who have limitations in distance vision, but are able to see objects and materials in the near environment within a few inches or at most a few feet.

Despite the differentiation, the information gathered from medical records about cause and extent of visual defects, a child's visual defect is to

be considered by the teacher in terms of its implications for the day-to-day tasks which the child will undertake at school. If the child has some sight, but too little to enable him or her to understand ordinary school work without adaptation and the need for specialised help, he will rightly be considered as having “low vision”. In practice, such children are visually considered as the better seeing pupils in schools for the blind, as the most severely visually-handicapped in schools for the partially-sighted.

A child with low vision is at a great disadvantage in a normal classroom without special aids, writing on the blackboard could appear to him as mere scribbles, if he can see it at all, even from a front seat.

Partial sight: This term is used to refer to those whose sight, though, poor, is not so bad that they can be regarded as blind. Many such children suffer from serious myopia (short sightedness), hypermetropia (long sightedness) and astigmatism (blurred vision). Some of them can benefit from the use of optical aids and will fit comfortably into a normal educational set-up.

Partial sightedness is not the mid-point between normal sight and blindness. A partially-sighted person carries out most daily activities by using his limited vision to the fullest. He is partially sighted but not partially blind and should always be treated as such. With the help of an understanding teacher, a child with partially sight may not be at disadvantage in an ordinary school. However in advanced countries, children with partially sight have a separate educational set-up. This is not the case in Nigeria where children found in schools for the blind ought to be in schools for the partially-sighted. It is hoped that in the near future, such children will be provided with more appropriate educational facilities.

Having explained these terms, the next question is therefore “what is that child in your class? Blind? Partially sighted? Or low vision? Whatever he is, the point is that you now understand him or her better”.

3.3 Causes of blindness

3.3.1 Causes: Causes change over the years and alter according to geographical factors and the states of development of the country. Fifty years ago, eye and general infections caused most of the blindness.

In the tropics and poorly developed countries, this is present and also the cause, together with the effects of malnutrition. In the developed countries at present, congenital and hereditary conditions are the greatest causes of blindness in children.

Most common congenital conditions are optic and cataract. The optic nerve may lose its ability to transmit the message of sight from the retina to the eye to the brain, it becomes white instead of pink and may be seen by the doctor when he looks into the eye through the pupil with a special instrument. The cause of the optic atrophy is often not known, but it must be often due to a failure of proper development because many of these children had a very low birth weight or were premature and, in addition the optic atrophy, many are mentally retarded.

The same remarks also hold for causes of cataract. A cataract occurs when the fusing lengths in the middle of the eye becomes opaque to light. It is probably well known to Nigerian people that one of the main causes of congenital cataract is the infection of rubella in the mother during the first three months of pregnancy.

The epidemics of the condition and resultant blindness may now be a thing of the past with immunization, early diagnosis and more successful techniques treatment.

Another cause of the epidemic blindness in children retro-lental fibrolasia. This condition is due to a disorder of the retina which leads to the formation of the fibrous membrane behind the lens. It was found by a South Australian doctor, to be due to excess oxygen to premature babies in order to keep them alive. Now that better techniques of management of premature babies are possible, this cause of blindness is rare.

The largest group of conditions causing genital blindness comprise miscellaneous structural defects of the globe of the eye including the condition of nystagmus (wobbly eyes).

3.3.1.1 Heredity: Complication occurring during pregnancy and at birth accounts for some blinding conditions, but in many cases the cause is quite known. In recent years, it is becoming evident that more and more cases are due to heredity and some of these may be prevented by detecting the possibility of transmission by biochemical tests on the parents and genetic counselling.

As the care of pregnancy, prevention of birth complications and the care of premature and malformed babies have all greatly improved in recent years, with the consequences that more babies are surviving, we are seeing an increasing number of multiple handicapped children.

Visual handicapped is increasingly occurring along with other handicapped such as deafness, various physical defects, epilepsy, mental retardation, speech impairments etc. The most common visual defect is optic atrophy. World authorities are very concerned with this trend and are calling for a research to clarify the kinds of handicaps, determine the causes and

recommend prevention and management. The combination of two particular conditions, if well studied, may provide an opportunity to commence this clarification of a very difficult problem. Such a combination is blind and deafness in otherwise healthy children. There is a fairly well defined condition called “usher’s syndrome”, which is a fairly congenital deafness combined with peripheral retinal dystrophy. The deafness is variable in degree, but often profound and it does not seem to progress through our life. With regard to the vision, it is good at birth and only begins to fail sometimes during late childhood.

The visual handicap is that of night blindness, then a peripheral field defect occurs in good illumination which gradually spreads towards the centre causing “turnel vision” at about middle age. It is an hereditary condition due to an abnormal gene being inherited from both parents; but the gene is a recessive one, so that an affected person is most unlikely to pass the condition into his or her child.

Although advances in medical science have created problems in the process of giving efficient medical and surgical care, a further advance in science must surely solve these problems. However, the solution is not likely to be found in the work of some brilliant individual as in time past. These present days, like the problems themselves, are complicated, the solution can only be found in a corresponding complexity or organization.

National child development studies showed that three out of 1000 children have some kind of visual defects that was an educational handicap, 0.5 per 1000 were classed as blind or partially sighted and 2.25 per 1000 as totally blind.

One may classify visual handicap into the following main types:

- a. Congenital or adventitious.
- b. Static or progressive.
- c. The handicap may occur in one or other or both of the two main kinds of vision: vision in bright illumination (day blindness) or vision in dimillumination (night blindness).
- d. The handicapped may involve various areas of the field or vision: the main areas are 1. the central vision (i.e. vision of object viewed straight in front) 2. the peripheral area (objects seen far to the sides of above and below) and 3. an area between the small central area and the peripheral area, called the intermediate field. Examples of the first type is where only central vision is lost, are diseases called macular colobome, macular degeneration and dentral retinal dystrophy. When both peripheral and intermediate fields are lost but the central field is retained we have the condition called “turnel vision”. Sometimes an

area of the intermediate field only is lost. These last two types occur in the disease of peripheral retinal dystrophy (retinitis pigmentosa) when all three fields areas are involved the condition is diffuse.

There are, of course many combinations of the various defects of vision and the degree of each defect may be any where along the range from normal to total loss of sight.

3.3.1.2 **Legal blindness**

There is another type of blindness which is expressed medically as “moderate to severe”. However, for the purpose of assistance and benefits from the government due to a blind person it is known as “legal blindness”.

This level states that a person who has a visual handicap which cannot be corrected above 6-60 is termed a legally blind person and, therefore can qualify for pensions.

A person whose vision handicap can be corrected above 6-60 through the prescription of glasses is termed not to be legally blind.

However, the paradoxical situation arises in that when he removes his glasses, his visual acuity (sharpness of vision) is the same as that of a legally blind person.

A person’s vision is tested on the snellen chart. Normal visions termed as 20-20 vision. This can only be expressed as 6-6 vision and refers to the distance at which a person must view the chart. That is 70 feet or 6 metres. 6-60 vision is equivalent to 20-200 vision the person tested is asked to read a letter of certain size on the chart at 20 feet. The size of the letter is that which is considered to be clearly visible to the average person.

In America, however, a person with a loss of peripheral vision beyond an angle of 20 degrees is considered to be legally blind. In other words, this person is suffering from “tunnel vision” and his vision may be 20-20 but is limited to a very narrow field.

The visual disability does not directly relate to the handicap suffered by each individual person as there are so many other factors to be considered, such as intelligence, maturity, initiative and attitude of mind. These determine how much the disability will become a social and educational handicap and whether the person is able to accept it and lead a normal and useful life.

3.3.1.3 **Terms associated with visual impairment**

Aphakia: Absence of the lens of the eye.

Aqueous humour: A watery substance between the cornea and the lens of the eye.

Astigmatism: Blurred vision caused by an irregular cornea or lens.

Blindness:	A state of severe visual impairment in which there is no measurable or useful vision.
Blindisms:	Repetitive, stereotyped movements such as rocking or eye rubbing; also characteristic of some severely retarded and disturbed children.
Cataract:	A condition of the eye in which the lens of the eye is clouded, resulting in dimming of visions.
Cornea:	A transparent cover in front of the iris and pupil; responsible for most of the light rays in the focusing of an object.
Glaucoma:	Pressure inside the eyeball caused by the forming of fluid in the front portion of the eyeball. The cause is unknown, but if untreated, blindness results.
Hyperopia:	Farsightedness, usually results when the eye ball is too short.
Lens:	A structure that refines and changes focus of the light rays passing through the eye.
Myopia:	Near sightedness: parallel rays come to a focus in front of the retina, usually results from a too long eyeball.
Iris:	The coloured portion of the eye contrasts or expands depending on the amount of light striking it.
Braille:	A system in which raised dots are used to allow the blind person to “read” with his fingertips. It consists of a quadrangular cell containing from one to six dots whose arrangement denotes letters and symbols.
Light perception:	Ability to distinguish light from dark.
Nystagmus:	Involuntary rapid movement of the eyeball; sometimes indicates a brain malfunction and/or inner ear problems.
Ophthalmology:	A science dealing with eye diseases.
Ophthalmologist:	Medical specialist in the diagnosis and treatment of disease of the eye.
Optacon:	A device used to enable the blind to “read” consists of a camera that converts print into an image of letters, which are then produced via vibration onto the finger.
Pupil:	The contractile opening in the middle of the iris.
Retrolental:	A disease of the retina, in which an overgrowth of vascular tissue forms behind the lens or the eyes, occurs in premature infants who receive excessive oxygen.
Retina:	The back portion of the eye, containing nerve fibres connected to the optic nerve.

Retinitis pigmentosa:	A hereditary disease resulting in degeneration of the retina. There is usually misplaced pigment.
Strabismus:	Deviation of the axis of the eyes, which person cannot overcome, making single binocular vision impossible.
Tadoma:	A vibration method of receiving speech in which the individual places his thumb of the lips of the speaker and his fingers lightly on.
Totally blind:	Make use other than visual methods.
Perkins Brailier:	A system making it possible to write in braille; has six keys, one of each of the six dots of the cell which leave an embossed print on the paper.
Verbalism:	(Verbal unreality). A blind person's supposed inappropriate reliance on words and phrases that are not consistent with his sensory experiences.
Vitreous humour:	A transparent gelatinous substance that fills the eyeball between the retina and the lens of the eye.
Hoover cane:	Most often recommended for the blind as a mobility aid; a long cane that is swept in an arc in front of the person to detect obstacles and changes in the terrain.
Jaeger chart:	Used in determining visual competence; composed of lines of type in different sizes; makes possible interpretation of results in terms of what kinds of reading material can be used for the person with the visual disability.
Mobility:	The movement from one place to another.
Orientation:	The ability to identify the location of one's self in relationship to one's environment.
Partially sighted:	"Better than counting fingers at two metres". For educational purposes, a partially sighted child is one who has a visually acuity of 20/70 or less in the better eye after the best possible correction, and who can use vision as his or her chief channel of learning.
Scanning:	The ability to locate particular objects from an array.
Severely visually impaired:	From "good light perception" to "counting fingers at two metres".
Snellen chart:	Used in determining usual competence; consists of rows of letters of E's arranged in different positions; each row corresponds to the distance at which a normally sighted person can discriminate the letters;

	does not predict how accurately a child will be able to read print.
Sonic glasses:	Developed by Kay (1973); operates on the principle that humans, like bats, can learn to locate objects by means of echoes.
Sonic torch:	A hand-held device that emits sound when it encounters an object; the sound is echoed back to the person holding it.
Tracking:	The ability to follow the paths of moving objects.
Accommodation:	The adjustment of the eye for seeing at different distances. Accomplished by changing the shape of the crystallised lens through action of the ciliary muscle, thus focusing a clear image on the retina.
Binocular vision:	Ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single image which gives a correct interpretation of its solidity and its position in space.
Central visual acuity:	Ability of the eye to perceive the shape of objects in the direct line of vision.
Contact or corneal lenses:	Lenses so constructed that they fit directly on the eyeball, used for the correction of vision in cases having a cone-shaped cornea and for cosmetic reasons.
Colour deficiency:	Diminished ability to perceive differences in colour—usually for red or green, rarely for blue or yellow.
Dark adaptation:	The ability to perceive the solidity of objects and their relative portion in space.
Diplopia:	The seeing of one object as two.
Eye dominance:	Tendency of one eye to assume the major function of seeing, being assisted by the less dominant eye.
Field of vision:	The entire area which can be seen without shifting the gaze.
Ishihara colour plates:	A test for detection in recognizing colours, based on the ability to trace patterns in a series of multicoloured charts.
Light adaptation:	The power of the eye to adjust itself to variations in the amount of light.
Near vision:	The ability to perceive distinctly objects at normal reading distance, or about fourteen inches from the eyes.
Ophthalmoscope:	An instrument used in examining the interior of the eye.

Optic atrophy:	Degeneration of the nerve tissue which carries messages from the retina to the brain.
Optic nerve:	The special nerve of the sense of sight which carries messages from the retina to the brain.
Peripheral vision:	Ability to perceive the presence, motion or colour of objects outside of the direct line of vision.
Sclera:	The white part of the eye – a tough covering which, with the cornea, forms the external, protective coat of the eye.
Tunnel vision:	Contraction of the visual field to such an extent that only a small area of central visual acuity remains, thus giving the affected individual the impression of looking through a tunnel.
Vision:	The art or faculty of seeing, sight.

3.3.1.4 Signs of Eye Defect

We do not need a prophet or a medical doctor to identify a child who is totally blind or who has low vision. The problem of identification is mainly with children who have partial sight or who are myopic (short-sighted), hypermetropic (long-sighted) or astigmatism (blurred vision).

However, a great deal can be ascertained about a child's eyes and his visual pattern by the observation of his behaviour. These behaviours include the following:

1. Progressing at a rate below that which might be considered appropriate for children of approximately the same ages, grade and intelligence test scores.
2. Failing to complete long reading assignments or other school tasks involving extensive eye use, especially when time is limited.
3. Understanding the basic principles involved in certain areas of study such as long division, but making errors in the comparatively easier procedures such as addition, particularly when working with long columns of figures.
4. Remembering and understanding material read to him better than that which he reads himself.
5. Confusing letters and words which look somewhat alike.
6. Covering or shading one eye while reading.
7. Skipping letters, words or lines while reading.
8. Having difficulty of copying from textbook, workbook or blackboard.
9. Tiring quickly or being easily distracted while working at his desk.
10. Being confused by details such as those appearing on maps and diagrams.

11. Writing unusually small, or large characters, or very poorly.
12. Appearing clumsy and reluctant or participate in play.
13. Having poor eye-hand coordination.
14. Rubbing or brushing eyes frequently.
15. Thrusting head forward or squinting when looking at near or far objects.
16. Stumbling or tripping often.
17. Complaining of dizziness and headaches.

3.4 Communication problems of the blind

The difficulties of educating deaf and blind children vary according to their disability. However, they have one common problem, that of communication. Reading, writing, speaking and listening are the four ways we communicate with other people.

Blind children can not read or write in the normal fashion and the deaf can not fully use speech or hearing. They both have to overcome these communication problems by learning a different technique.

For the blind, a solution is “Braille”. Braille is simply another way of expressing the English language and not a language of its own. It consists of 26 symbols, each one representing a letter of the alphabet. Braille books are written using the same lay-out as printed books, reading across the line from left to right, moving down the lines until the page is completed.

Braille is read using the index finger on each hand. The finger in the right hand detects the word whilst the finger on the left hand trailing about one inch behind the right – reads the word again, clarifying it in the mind of the reader. These two fingers technique enables a blind person to develop quite a reasonable speed of reading.

In the early 1960's, a new copying process was developed revolutionizing the output of Braille material known as “thermo-form copier”, the machine can run off copies of Braille sheets perfect in every detail. A sheet of Braille measuring approximately 11”×11” (or 275mm × 275mm) is placed in the thermo-form machine. A plastic sheet of the same size is placed over the Braille sheet and clamped into position. The machine is switched on heating up the plastic sheet until it melts to a point where it becomes soft and pliable. At the same time a vacuum pump sucks out the air from between the Braille sheet and plastic sheet. This creates a vacuum and the air pressure from above causes the plastic sheet to collapse over the Braille sheet and assume its surface shapes, so we then have a perfect copy of Braille sheet. This plastic copy has the added advantage of being more durable than the paper and will virtually last forever.

Using this same process, maps, diagrams, graphs and street plans can be made. Pieces of string, cane, match stick and sand paper, felt, tinfoil and so on are placed on a master sheet to represent streets, parks, lands, railways in a given area. Braille tabs identifying streets are attached and the master sheet is then placed in the thermo-form machine where a plastic copy is made.

This machine has meant that there can now be a greater variety in the material put out both for educational and entertainment purposes and mass production becomes cheaper and quicker. For example, 10 copies of a 40 page story book for use in the classroom can be run off on the thermo-form in just one day's work. In the past, each copy would have had to be individually transcribed out by a typist using a Braille machine.

Braille is just as important to the blind as print is to the sighted. When a child begins school, he learns to read and write. A blind child does exactly the same thing using a different method. The end result is the same.

Magazines, textbooks, novels catalogues, timetable and information pamphlets are issued in Braille. Because of production problems and lack of demand, Braille newspapers are not printed. However, monthly magazines are issued. This includes "Readers Digest" issued by the American Printing House for the blind.

Louis Braille

In 1812, Louis Braille, then a three year old French boy, was playing outside his home in Coupvral, near Paris. He had picked up a sharp knife used by his father to pierce holes in wood and leather. Somehow, the knife slipped from his hand to his eye, and as a result, he became blind until his death in 1852.

When he was ten his parent sent him to the institute Des Jeunes AVEUGLES (institute for blind) in Paris. At that time, the institute's method of teaching was limited, reading consisted of having the student feel large graphics (letters). They traced the raised figures with their fingers. Because the graphics were over size for easier reading, in order to fit on a standard page, copy had to be shortened. Even abbreviated texts, however took up additional space, adding extra pages. This system was difficult for blind children to handle, as well as expensive to produce.

In 1821, a retired military man, captain Charles Barbier, came to the institute with an alphabetical code of dots and dashes he had devised to send and receive military messages at night. The combination were punched into paper and read with the fingers.

Louis Braille, a gifted student and later a professor at the institute, began experimenting with Barbier's dots. By 1884 he had refined them into

what became the Braille code. He had also learnt to play the organ, and his system of raised dot representing letters, numbers and punctuation marks as well as musical symbols and notes.

At the age of 15, he was revolutionized, touch reading (Braille), as it was, called in his honour to blind people throughout France. Without it, they could neither read nor write. By the middle of the nineteenth century, the use of Braille had spread throughout Europe and Canada.

Louis Braille died of tuberculosis at the age of 43, but he had given blind people everywhere their first important lifeline to the sighted world. Until then, making brooms, selling pencils and operating. Newsstands were the most common jobs available to people without sight. Training and career opportunities did not exist. Braille changed all that.

Early, Braille production was slow and costly, with the embossing done by hand on zinc plate. The system, however, was enabling blind people to have access to written language. Millions who are unable to read standard print could learn Braille. Opportunities for job began to materialize.

An accident robbed a little French boy of his sight nearly 2000 years ago, but now many years later, that same boy devised a communication system of dot reading and writing that has brought life and hope of millions of blind people far beyond the French town in which he was born. Without the use of Braille, it will not be possible today to talk about blind Doctors, Lawyers, Mathematicians, Scientists, Engineers, Professors, Teachers, Businessmen and Farmers.

Differences between the congenital and the adventitious blind

There are many differences between persons who are born blind and those who lose their sight in later life. The latter are bewildered, full of anxiety, doubts and fears. They have lost their previous self-image. Plans or hopes for the future appear to have come to an abrupt end.

The first and most decisive step in the rehabilitation of such an adventitiously blind person is the acceptance of his changed condition, with all its implications. When he accepts this fact, the long, slow climb towards re-adjustment has begun.

The congenital blind person has better chance to accept his limitations, organize his capacities and make an early adaptation to his handicap. He can have a more realistic approach to his future goals right from the onset.

The adventitious blind has to first overcome his physical, psychological obstacles, and even completely re-adjust himself to his condition. One of the most direct consequences of adventitious blindness is the loss of physical independence – the loss of orientation and mobility.

A person who has been deprived of his physical independence and through loss of sight, feels helpless and dependent, is bound to change his self-image drastically.

The feeling of independence in a born-blind will not influence his self-image to such an extent. In this respect, a remark made by a 15-year old girl, born blind, while on a summer mobility courses, is obvious. During her stay at the institution she met a woman teacher who lost her sight two years previously at the age of 48. On hearing this, the girl turned to one of her instructors, moved by an obviously compassionate feeling, and exclaimed: "poor woman, it must be terrible to have been sighted all your life and then suddenly to become blind. I am better off. At least, I have never known what it is to see".

This particular girl has passed her matriculation examination and is continuing her studies. The blind teacher, who also had mobility instruction, has now returned to her former high school and has resumed teaching French. Both, the blind born and the later blinded, each of a different age group, have attained sufficient freedom of movement to enable them to live normal lives.

Different concepts

The blind-born naturally, have different concepts of things. They must rely on factual, auditory and olfactory perceptions, kinesthetic experiences, verbal descriptions given to them by the sighted, and on their own power of imaginations. This applied especially to objects which are inaccessible by touch, as for instance the sky, horizon or objects which are too large to be factually explored in their entity.

The quantity and quality of conceptions the blind-born may have to a great extent, depend on whether as a child he was given the necessary attention and was permitted and helped to explore and experience things by himself, given adequate explanations and descriptions by his surrounding family, or was over-protected or neglected.

The advantage of the blind-born over the latter blinded is that the former will consciously or unconsciously learn at an early age the meaningfulness of his remaining senses.

Early practice and concentration bring about more use and greater efficiency of them. This is an all important factor in the blind's capacity for orientation and mobility.

In contrast, the later blinded has the advantage of the retained visual memories. How long these memories remain clear may well be connected with the age of onset of blindness. It is to be expected that over the years, some of the visual memories might become blurred. This will be much more

pronounced if the person lost his sight as a young child. In this case, he has only limited visual memories to begin with, and this gradually fade.

The blind-born and the later blinded present different problems, but with adequate and proper training. The degree of mobility that may be achieved in each case will depend on a number of subjective and objective factors.

Whether blindness was congenital or adventitious may be important and often conspicuous during mobility training, but this alone is not decisive.

Dropped object procedure

When an object drops, he should orientate his entire body so that he faces the direction of the sound. If the person waits until the sound is no longer audible, he may move to the incorrect direction several degrees from the actual direction where the object came to rest.

When the sound is no longer audible, the child may approach the area. He should attempt to stop with his feet about $\frac{1}{2}$ metre short of the object. It would be incorrect and dangerous to bend over as the sighted person does, since there is the possibility of bumping the head on a piece of furniture or other object. He can use a squatting technique to keep from bumping his head. To ensure greater safety, he may protect the head by extending an arm up near the surface and head. He may begin to search with one hand.

There are two distinct patterns of hand movement, which can be used for the search. The first is to lightly survey the surface immediately in front of the child beginning with a small circular motion and spiraling outward from the beginning point with each successive loop just enough larger than the previous movement covering the surface completely. If the object has not been retrieved, the child can move one step forward and repeat the pattern.

The other pattern of covering the surface is to sweep the hand being used from side to side over the surface advancing it enough at the end of each stroke so that it overlaps the area covered by the last stroke.

Hand and forearm technique

This technique is useful for detecting obstacles when getting around unaided e.g. a desk or other piece of furniture that may have been moved. The arm is held at shoulder height parallel to the floor, across the front of the body. The forearm is held so that the elbow makes an angle a little more than a right angle and the tops of the fingers are extended slightly beyond the shoulder. As the child walks, objects of shoulder level will be encountered

by the hand or forearm. The time between the hand and the body encounter should allow the child time to react and stop before the body hits the obstacle.

This technique should be used whenever he is moving about in unfamiliar surroundings and familiar ones where there is potential obstruction e.g. doorways. For added protection in unfamiliar surroundings, a combination of the forearm technique mentioned above and the lower cross body technique discussed below, can be used.

Lowered arm technique

The child standing with his arms at his sides may bring either of his hands to the midline in front of the body, without bending the elbow. The hand is held 25cm to 50cm in front of the body with little finger outermost and thumb towards the body.

Holding the hand in this position will keep the child from jabbing the thumb into some hard object and at the same time will allow the fingers to encounter the obstacle early enough to give the child time enough to react before bumping. A slight modification is permissible when objects below the level of the fingertips are believed present e.g. a low table. This may be accomplished by lowering the shoulder. This should not be a leaning forward of the entire upper body.

Limitations of the method are: lower objects may not be detected. One side of the body is left relatively unprotected. The face is open to bumps unless the Hand and Forearm Technique is used simultaneously.

Trailing

Frequently, it is more desirable for a blind child to follow a wall, table edge, hand rail or other line. The proper technique for doing this is to keep the arm straight at the elbow and move the hand along the wall so that it is about 25cm to 50cm ahead of the body and at approximately the height of the hip. The child can walk along the wall not more than 25cm from it. The hand on the side near the wall is held with the fingers relaxed, palm down and dumpfolded near the palm to protect it from being jabbed into obstacles. The surface is touched lightly with the joints of the fingers.

Although the child should not depend entirely on trailing as a means of mobility, he may want to use this as means for tactile identification in conjunction with other methods.

Use of sighted guide

It is desirable for the child to be as active as possible. The use of a sighted guide implies action rather than passively towed along by the hand. Actually in some situations, the child may be doing the guiding e.g. they may be telling the sighted person where to go.

The child being guided should grasp the guide firmly but gently just above the elbow (lower for smaller child) on the side on which he intends to walk.

The child should walk half a step behind the guide so that he will have time to react to body movements of the guide. The guide should walk at the normal pace unless there is a factor adversely affecting the pace of the child e.g. physical handicap. The child should pay attention to the arm movements, since these movements tell what the guide is doing, or is about to do.

For ascending and descending stairs, the guide should pause slightly before beginning the ascent or descent. The child should also be informed by the guide that “we are about to go up some stairs” or “we are about to go down some stairs”. Stairs should be approached at right angles so that the child does not get to them at the same time or ahead of the guide. The same technique is used at curbs, which might be considered a very stairway.

For going through narrow doorways or passageways, the sighted guide should move his arm to a position at the centre of his back. This is the signal for the child to straighten his arm and fall in directly behind the guide one full pace behind. When the guide moves, his arm back to the original position, this is the signal for the child to take up the original position also.

General teaching hints for the visually impaired

The aims and objectives of education are the same for the blind children as for sighted children; even though procedures for attaining those objectives are achieved by modification of instructional materials and special teaching procedure.

There is no doubt that if visually handicapped children were exposed only to the educational experiences and materials used with sighted children (which are approximately 80% visual) they would not achieve their educational goals. Special personnel, methods, materials and equipment must be employed utilising the senses of hearing, touch, smell, residual, vision and taste.

Lowenfeld (1973) has pointed out three principles to keep in mind in adapting procedures for the visually-handicapped. They are:

1. **Concreteness:** Educationally, the blind child's knowledge is gained primarily through hearing and touch. But if the child is ready to understand the surrounding world, it is necessary that he or she be presented with concrete object that can be touched and manipulated. Through tactile observation of models of objects, blind children can learn about their shape, size, weight, hardness, surface, qualities and perhaps temperature.

2. Unifying experience: Visual experience tends to unify knowledge in its totality. A child entering a bookstore for example will see the relationship of shelves and objects in space. A visually-handicapped child cannot obtain this unification unless teachers present him or her with the corresponding experience.
3. Learning by design: For a blind child to learn about the environment, it is necessary to initiate self-activity. A blind person, in fact does not reach out for an object because the object does not attract him or her. The infant must know of its existence by touch, smell or hearing. Reading and contact must be stimulated by deliberately introducing motivating situations like rattles of infants to reach for.

You and the blind

Those with little experience or understanding of the blind frequently ask the question “How should I treat a blind person?”.

Blindness is a disability, it imposes certain limitations. Find out what, and how great these limitations are in the case of the blind person concerned. Do not rely on your own imagination or perceived ideas; they will almost certainly prove you false.

1. Do not generalize about the blind. Blindness is to be found among members of every section of the society; their only common ground is their lack of sight. Remember, then, that each blind person is an individual. His qualities, aptitudes and shortcomings are peculiar to himself.
2. Do not assume that blind person is either especially gifted or mentally handicapped. Most blind people are of normal ability.
3. When talking to blind people, therefore treat them as ordinary human beings. Address them directly and not through a third person; employ a normal tone of voice and do not assume that they are hard of hearing. Do not substitute “hear”, “feel”, “sense” or some similar word for “see”, or avoid the word “blind” where it would normally be used.
4. Do not talk down to the blind. The majority have lost their sight in adult life; blind children go to school up to the age of 16 and sometimes later. Their interests and tastes are therefore as wide and diverse as those of other members of the community.
5. It is helpful if you can make yourself known when you address a blind person or when you enter a room in which he is present. If you do not

- know his name or can not think of it and wish to address him, touch his arm lightly so that he knows he is been spoken to.
6. After conversing with a blind person, let him know that you are leaving. It can be most embarrassing if you address a remark to someone who is no longer present.
 7. Avoid expressions of pity; they are generally resented by blind people. Sentimentality about blindness and reference to it as an affliction, irritate those who are adjusted to their blindness, and depress and discourage those who have not yet reached this stage.
 8. Avoid too, expressions of amazement when a blind person performs some of the ordinary things of life. Remember that what is sometimes attributed to a sixth sense is often, in reality, the application of common sense. It is presumptuous to assume that you can fully appreciate what can, after correct training be accomplished without sight.
 9. When guiding a blind person, do not attempt to “carry” him. You may prefer to take their guide’s arm, but this is not invariably the case. A tactful inquiry should be made as personal preference.
 10. When boarding a bus or using a staircase, the blind person’s hand should be placed on the hand-rail if he has difficulty in finding it.
On approaching steps, a blind person generally likes to be told whether the steps go up or down.
 12. Be scrupulously accurate when indicating direction to a blind person. Do not, for instance, say left when you mean right. A mistake of this kind could often cause very real inconvenience or even a serious accident.
 13. Care should always be taken when closing doors of vehicles. This is doubly important when there is the risk of a blind passenger getting his fingers trapped.
 14. If riding a bicycle or driving a vehicle, take extra care when you see someone carry a white cane.
 15. Remember that many blind people need and appreciate help when crossing roads. If you have been snubbed when offering assistance, do not risk making the innocent suffer for the guilty.
 16. When taking a blind person across a road avoid jay walking.
 17. At meal times, a blind guest will appreciate knowing what food is being offered him. He should be provided with a knife and fork and left to cut up his own food, unless tactful inquiry shows that he would appreciate assistance. When tea or coffee is being served, it is better not to fill the cup too full. A full cup is difficult to balance.

18. With an adequately adjusted blind guest, you need not express anxiety about your furniture or household effects. Simply show him his way around and indicate the position of various objects.
19. Do not push a blind person into a chair. If he has difficulty in locating it, always provide an ashtray when giving a blind person a cigarette.
21. When there are blind people in the house, avoid leaving doors half open. If possible always give warning when furniture and things used by blind people have been moved or relocated.
22. Try not to leave unexpected objects lying about in places where blind people may be walking.
23. Intelligent interpretation of these simple rules will do much to enable you to enjoy the friendship of these blind men and women encounter in daily life.
24. It is not abnormal when a blind person asks for the location of switches in his home or office. Often this helps him to “light” the way for others, and quite often he prefers a lighted room.
25. Always shake hands when meeting or taking leave of a blind friend. To him a handshake is a substitute for a friendly smile.
26. Always advise a blind person where the speakers platform is located at a public gathering when a public address system is used. This will enable him to face the speaker rather than the nearest amplifier (loud speaker).
27. Tell a blind person who the other guests are, so that he will know of their presence.
28. After preparing a blind person’s plate of food, don’t watch his every movement and try to direct his hands or spoon to the food. He may misfire once or twice, he will hit the target finally, even this is not as embarrassing as to have his helper continually telling him where his food is.

3.5 **Career opportunities for the blind**

For almost all blinded men and for a great number of blinded women, placement in suitable and dignified employment is the keystone of the rehabilitation process.

This does not mean simply getting blinded person some job. He has lost not only his means of earning a living and his occupation, but also that status that went with it and in many cases his vocational goals and prospects for advancement in a special career, involving his whole way of life and outlook for the future. If he is placed in an unsuitable job or one which offers impossibility of advancement, we are not solving the problem. Historically,

“vocational rehabilitation” began as simply “job rehabilitation”, but now the concept include “vocation” in the wider sense.

Suitable employment – if it is really suitable – restores job opportunity and financial security, it may do much for the blind person’s feelings about himself, relieving him of his fear of dependence and restoring him to his proper role in his family.

Returning to work produces a tendency to get the blind person into a job without prior rehabilitation. This is a subtle working out of the denial mechanism which says that blindness is a minor handicap (“after all, the big trouble is that if a man loses his work; restore this to him and he will be all right”). As a consequence often, persons with the best potential for complete rehabilitation are sent back into the community psychologically unprepared and lacking in knowledge of skills and resources hence a better result is not achieved. While they are fully capable of earning a livelihood, they are not given the knowledge and training which would make them fully capable in other areas of their lives. And when disorganized, unskilled blind person (however skillful he may be at his work) returns to a community position he may do great harm to himself and others.

Placement in suitable employment is, therefore not the whole of rehabilitation nor the foundation stone. But it is certainly the keystone for the vast majority of young and middle-aged adults. Without it, rehabilitation does not become a solid reality.

This means that the person whose blindness has cost him his position after years of employment or in his own business or profession needs to be returned to that same job or profession, with the same possibilities ahead as before. When this is impossible, he must be assisted to find an equivalent possibilities. And for more difficulty, the person blinded too early to have been employed or to be launched in a career needs to be helped so that he will have a future equivalent to that he would have had with his impairment

Before considering the role of the rehabilitation centre, of the job of counselor and placement expert working with the centre, and of agencies for the blind generally, we need some concrete ideas about the kind of work that blind persons can and cannot do.

Those occupations in which sight is absolutely essential for doing the work are completely closed. If a person’s work was of this kind, and if no transfer is possible to a similar type of work or to an allied field in which sight is not required, then he must face a complete reorientation and a complete change in his vocational objective, unfortunately, such a tragic situation, in which years of skill, effort and seniority go down the drain, leaving a man or woman thirty, forty or fifty years old with the necessity of

starting all over again, is quite possible. We can help to make it less tragic by aiding a person like this to make the necessary reorganization and also by helping him to start in a line of work suitable to his qualities and capabilities (if not to his training and experience), rather than forcing him unto some stereotyped form of work.

As the chart indicates, the possibilities of the person's returning to the same or similar kind of work expands in relation to two factors, the first being how much experience in the given field the blinded person already possess and how far "up the ladder" he has already climbed. For if he is sufficiently experienced and established, he will be able to purchase sight, or have it provided for him by his employers.

An outstanding example of what can be done along this line is that of a blinded man who was in the building supplies business, his special line being to look over jobs under construction, to figure and bid on them. After rehabilitation training, he solved his problem by hiring young apprentices to act as his eyes, to drive him to jobs, guide him around them, answer his well-put questions and do any writing required. Thus, he supplies himself with the needed sight and also gives invaluable training and experience to one young man after another.

In the same way, a business or industry which does not wish to lose the services of the valued employee with a responsible job may make it possible for him to carry on as before by assigning him special secretarial help, either fulltime or for set periods during the day. In the case, the secretary might, for example, read the morning mail to him while he makes Braille notes, she might dictate onto a recording machine the telephone numbers he is to call during the day or other necessary memos. Whatever the exact work that needs to be done, there are cases in which a company can save itself from the loss of a trained and experienced employee by purchasing and furnishing for him the sight that is a sine qua non to his effective functioning.

While the crack salesman at the height of his career can hire the services of a sighted person to drive his car and so manage to continue as before, the novice or semi successful salesman may be completely unable to do this, and must face the reorientation of his career and vocational goal. And so also, with many other types of work.

Yet when the blinded person has ability and energy, he might do well to take a chance on purchasing sight if he can in anyway arrange to do so, even if this means spending a good proportion of his income for the length of the time it will take to get established. In general, if the career of a blind person has already embarked on (or has in mind) is one in which qualifies

other than sight are what essentially make for success, and if there is reason to believe that he has this qualities, he should give serious consideration to every possibility of purchasing sight to carry out any aspect for which sight is necessary.

But the problems of those born blind and of those blinded in early youth or at any time before they have gained training and experience are vastly greater than those of many persons blinded in adult life. Some careers which would be quite possible in themselves are closed off because sight is needed to get the prerequisite training. For example, the general practitioner of medicine might move into the field of psychiatry, but a person who becomes blind before going through medical school could not become a psychiatrist because he could not take many of the required courses.

The problems of congenitally blind and youthfully blinded persons are not our primary concern here, but we need to be aware of them as part of the general future; also, their special difficulties serve to indicate the very real advantage afforded by previously acquired knowledge, skills and experience if the blinded person realizes or is shown how to make the best use of them.

The second factor in expanding (or contracting) the possibility of returning to the same employment is the ability and willingness of the employer or superiors to adapt the previous job to the blinded person's new qualifications, or to let him try out in a job in which sight is not essential and his experience could be useful. The secretary-filing-clerk-book keeper in a small business, for example, can go back to the same job if her employer can and will arrange to have her do only secretarial work, while someone else takes over her other duties. Otherwise, she cannot think that she can still look for a secretarial job somewhere else. Or the police patrolman might be given the job of deskman at headquarters; the fireman might be given a desk job or become a member of the safety inspection team. But if his superiors cannot or will not give him such a job or if he does not have the necessary qualifications, he will have to look elsewhere and perhaps completely reorientate his vocational goal. Possibilities of restoration here depend on a great many factors, some within the blinded person himself, some without. Each person presents an individual problem and needs individual help both in relation to his potential job and in fitting him to return to work.

The first task of the rehabilitation centre in this area is to equip the blinded person with the skills and attitudinal reorganization required for "total adjustment" to blindness. It should be emphasized that this is as necessary for the person who can return directly to the same job or profession as for the one who must completely reorientate his whole work life. The second task (unless the individual can return directly to work) is to

stimulate, while giving the skills and reorganization, the imagination of the blinded person by opening out to him the total range of available possibilities. The third task is to furnish or arrange for the best-specialized professional job counseling available and to furnish the job to the counselor and later the placement worker with the most completed scientific and human picture possible of the person to be employed, his strengths and weakness, his training and experience.

The task of the job counselor is to relate this picture to what can be ascertained about the community where the individual is to work and on the basis to develop with him the plans which have the most realistic prospects of success.

Some persons will then need specific job training. The task of the rehabilitation centre here is, when necessary, to help the individual graduating from the centre, find where to get this training. But it is not the task of the centre (nor of the whole field of work for the blind) to provide such training. A blind doctor who intends to become a psychiatrist needs to take the usual courses and hospital residency required for this specialization. A blinded woman who intends to do stenographic work needs to take the courses in a regular secretarial school. Persons who need to be retrained for one or another industrial job or trade can find such training in rehabilitation centre.

Not only would it be impossible for rehabilitation centres or agencies for the blind to provide specialized training, but also undesirable, for it would simply mean setting up another form of segregation and one that is completely unnecessary and unrealistic if rehabilitation training has been successful.

The final step is the actual procuring of a job. It is quite possible that the blinded person can seek and find his work himself. Or he might call on the services of a placement expert to survey the job he has in mind in order to ascertain whether he could handle it competently or to get any information about it that might be helpful. In other cases, the placement specialist, with his survey of a business or factory, may be indispensable in convincing an employer of the feasibility of hiring a blind person.

Everyone concerned in this process should remember throughout that it is the blind person himself who must make all the final decisions. He may be aided by the rehabilitation personnel in gaining needed motivation and exploring possibilities, by the job counselor in deciding on a particular type of work, and by the placement worker in finding it. But nowhere along the line should he be pushed in one direction or another. As an emotionally mature adult, it is he who must make the final choice. If he is not an

emotionally reorganized adult, we have no business assisting in his placement.

It should also be remembered that working with blinded people is like working with sighted people; blindness is no guarantee of employability any more than it should be a bar to it. The person who never held a steady job when he was sighted is unlikely to do so when blinded. The marginal worker or job jumper who becomes blind will probably continue to be one when he is blinded (and may well become a very vocal critic of the placement workers who cannot find him the suitable employment he does not really want at all). There may also be persons who only worked well and steadily because of social pressure to do so. When this pressure is relaxed by blindness, some may prefer to sit at home and complain of lack of job opportunities rather than work hard at those offered to them.

But, sad to say, even when the rehabilitation personnel, job counselor and placement worker, and the blinded person himself has done their best, dignified and suitable employment may still be impossible to find because of the lack of knowledge and consequent prejudice about blind people on the part of employers.

The pioneer placement workers who in the recent past first opened up jobs for blind persons in regular industry made an enormous contribution. Their work is being carried on and developed today by the trained job counselors and placement workers who work to educate individual employers and companies as to the employability of blind persons and to find the right jobs for the right blind persons. Here is a constantly expanding field for specialists, not only in industrial but also in white-collar placement, with perspectives opening out in agricultural placement as well. The activities of these "keystone" workers need more and more to be broaden and reinforced by the support of everyone else.

From the fact that blind persons can expertly fill many jobs, some people infer the false notion that placement of blind workers is not difficult and consequently are critical of placement personnel. Rehabilitated blinded persons do not, have the employment handicaps of some other disabled persons; standing or sitting in one place for instance, does not cause the injury or pain that it would, to those with back injuries; repetitive manual functions have not the same potential for him as they would to those injured in the upper extremities and are not as tiring as to the muscularly paralyzed. Work tolerance is not the danger factor, it is for the cardiac patient or a person with arrested tuberculosis, not the fatigue factor that it is for the paralyzed. There are no bowel and bladder difficulties that cause stress to many paraplegics. Blindness does not of its nature bring the accident-

proneness found even among those not considered handicapped, nor the repetitive physical illness inherent in many disabling diseases.

If the public, and particularly the employers of labour, were aware of these facts, placement of rehabilitated blind persons would indeed be relatively easy. But as things are, most employers have very strong emotional feelings which interfere with the hiring of blind persons. Moreover, most placement workers are expected to find employment not only for properly rehabilitated blinded persons but for many others whose rehabilitation has hardly begun. Their job is an extremely difficult and often thankless one.

But if the support we give to placement personnel is to be effective, it should be only a part of the effort of general agencies, agencies for the blind, specialize schools, relatives and friends of blinded persons, and blinded persons themselves to work together for the day when there will be the same opportunities within the community for blind and sighted persons alike to get jobs suited to their talents and abilities, to follow a worthwhile career, to achieve a vocational goal both realistic and worthy of the individual.

Perhaps, only one in every five thousand Nigerians in the employable years is blind, there is certainly sufficient opportunity among the wide range of jobs that blind persons can carry out as well as their sighted counterparts to make our goal a realistic one. Yet a tremendous amount will have to be done in order to attain it. Research is needed in the rehabilitation field itself to give new insights into the problems of blindness and new methods of dealing with them.

A massive, continuing campaign of public education is needed to do away with all the current false notions about blind persons, above all that they are by definition poverty-stricken and helpless. Such a campaign will have to point out that there are far fewer jobs that blind persons cannot do than those they can do, giving many varied and precise examples of the kind of work that blind persons are doing and could do if they are allowed to. In this way, the notion of stereotyped “blind jobs” and “blind skills” – a notion that makes perfectly good crafts such as broom making and occupations such as operating stands, seem distasteful to those blind (or sighted) persons who might otherwise find them acceptable-could also be disposed of.

Above all, this campaign would drive home the fact that judgment reasoning power, general intelligence, personality, empathy, sales ability, imagination, experience, inventiveness, leadership, loyalty, mathematical ability, the capacity for repetitive manual operation qualities which business, industry and the professions are all seeking to be found among blinded

persons just as frequently as among sighted. In fact, the country's greatest untapped potentials, for such qualities lie among its handicapped population.

4.0 Conclusion

There has been a lot of misconceptions about the blinds as most people see them with sympathy but rather with empathy. It is important to note that a blind person can be effective, efficient and self-reliant if our society provides all he/she needs to steer up his/her potentials.

The most educationally deprived handicapped are people with blindness. It is a basic fact that about 80% of information received by human brains comes from sense of sight. The other 20% of the information received from outside by the brain is shared among the other remaining senses, such as hearing, touch, taste and smell. It follows therefore that blind individuals who depend on learning through the remaining senses of hearing, touch, taste and smell must be extremely judicious in the use of them so that they may be able to learn as much as sighted person. It is no wonder that through the repeated use of the senses of touch, hearing, taste and smell, the blind may excel the sighted.

Another major problem of the blind is how to move about from one place to another safely and conveniently. Many educators of the blind believed that the restriction in the ability to get about its regarded as the most severe single effect of blindness. The totally blind person is indeed greatly handicapped in his mobility and at best must reconcile himself to a considerable declaration of his movement. Even a small amount of sight skillfully used makes a major difference in the individual's ability to move around in the familiar and unfamiliar environment. The restricted ability to get about oneself implies a two fold handicap. It limits the blind person in his mobility so that he cannot change his surroundings and secure opportunities for observation and activities as sighted persons do normally. It also makes him depend upon the assistance of others and thereby affects his social relationships and attitudes.

Thus, blind individuals beside being limited in the perceptual field are from infancy onward restricted in their ability to expose themselves to experiences. It is perhaps unnecessary to stress how important it is for the sighted child's growth, his ability to move around freely, to observe his changing surroundings and to change these surroundings more or less his will. The blind child who cannot do this with any comparable ease needs to be supplied with experiences and opportunities for activity which most other children meet in the ordinary course of their development. How much does it mean for our sighted young stars to go out on the street, down to the street, down to the forest or river, walk up and down on main roads or go exploring

into the bush and forest? The blind child has much less chance to do this and even if he does now and then, his experiences does not give him any comparable amount of actual knowledge of his environment.

5.0 **Summary**

In this unit, we have studied the case of blindness; definition, causes, classification, problems of the blind. I am sure you now know that blindness does not mean incapacitation in life.

6.0 **Tutor Marked Assignment**

1. List six (6) causes of blindness in Nigeria.
2. Enumerate four (4) problems of the blind in our society.

7.0 **References / Further Readings**

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Unit 3: Mental Retardation

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1.0 Introduction

This unit is looking at another physical challenge called mental retardation. This requires a special attention by all, especially specialists like community health practitioners who is based in the community. Your proper understanding of this unit will assist you very well in Community Health practice.

2.0 Objectives

At the end of this unit, the learners should be able to:

- define mental retardation.
- list causes of mental retardation.
- classify mental retardation.
- describe the preventive measure of mental retardation.

3.0 Main Content

3.1 Introduction

A mentally retarded child is still a child and requires love, affection and opportunity to achieve his / her growth potential. This is necessary because he is an individual with subnormal intelligence, which causes him to function at a retarded level and who may also have a physical handicap limiting his mobility.

The most misunderstood of the handicapped are the mentally retarded children. People who do not understand them call them various derogatory names such as “idiots”, “insane”, “vegetable human beings” and “cold child”. We should try as much as possible to avoid the use of such negative words as they will not in any way help the child. With careful training, patients and understanding, a mentally retarded child can be productive and become useful citizens. Under no circumstances should the mentally retarded children be used as “entertainers”. It has been found that some misinformed people, including teachers have formed the habit of using the

mentally retarded to amuse or entertain their guest by asking them to dance. It is true that many retarded children love to listen to music and dance, we should therefore use music and dancing as a therapy and not as a fun.

Mental retardation which is a condition of sub-normality of the brain is a permanent condition which cannot be changed. This is to say that it cannot be treated medically as an illness. Unlike mental retardation, mental illness is an illness which can be treated medically. Therefore, mental retardation should not be confused with mental illness as is often the case. Nearly all the cases of mental retardation are congenital. Mental retardation is not a disability that can be acquired. However, a few cases of retardation can be acquired as a child or adult. These can occur if one sustains head injury through an accident, resulting into brain damage. This condition in addition to mental retardation can also result into speech defects.

3.2 Causes of Mental Retardation

Although mental retardation is not a disease and hence can neither be infectious nor contagious. According to Smith (1971) the largest group of the retarded are those who have been handicapped as a result of environmental deprivation during their early formative years. These individuals were unable to develop basic skill at the appropriate time of their life. This lecture focuses on prenatal, perinatal and postnatal causes of mental retardation

Prenatal causes

The causes of mental retardation before birth include genetic cause which is mainly hereditary. Several studies suggest that majority of mental retardation cases stem from specific genetic defects. The retardation might be due to a recessive gene, a dominant gene or chromosomal aberrations. Phenylketonuria (pku) for example, is an inherited disease caused by recessive gene, giving rise to mental retardation unless some inventive measures are taken early to offset mental retardation. Again, chromosomal aberrations (abnormalities) give rise to the kind of mental retardation commonly referred to as Down's syndrome or mongolism. This condition was first discovered in 1866 by Landen Down, and is believed to be caused by a malfunctioning of an important gland in the body. It manifests in poor speech, poor physical development and severe mental retardation.

Other prenatal causes of mental retardation includes German measles (rubella) suffered by the mother during the first three months of pregnancy. This infection may also be responsible for such other handicaps as deafness, heart diseases, epilepsy and microcephaly (tiny head). It has also been suggested (Telford & Sawrey, 1967) that other infections such as cholera, typhoid, influenza, mumps etc. may be involved in quite a few causes of

mental retardation. Mental retardation can also be caused by trauma such as unsuccessful abortion by mothers, accident, blows and falls resulting into injury to the embryo. Severe malnutrition of expectant mothers is also implicated in mental retardation. Blood incompatibility (commonly referred to as Rh-incompatibility) between the expectant mother's blood and the blood of the developing child, followed later by mental retardation. Finally, expectant mother exposed to radioactivity such as X-ray and atomic bomb blast run the risk of having not only retarded but also physically deformed children.

Perinatal causes

These concern those conditions affecting the child during delivery or immediately after birth, hence, they refer mainly to birth injuries. Prematurity and lack of fresh air (oxygen) for the neonate during birth (asphyxia). Birth injuries usually stem from difficult or prolonged labour, improper use of forceps during delivery and caesarian birth (breeding). They cause brain damage and mental retardation.

Postnatal causes

It is understandable that a number of the prenatal and perinatal causes can also lead to mental retardation after birth (i.e. post-natally). However, other causes in addition to these are brain injuries caused by a severe blow to the head, falls and gunshot wounds. Many authorities however, believe that incidence of such cases are relatively low. Postnatal infections of the brain such as meningitis, syphilis and encephalitis (inflammation of the brain) cause lasting damage to the delicate tissue of the brain and give rise to irreversible mental retardation. Strangely enough, measles, chicken pox, mumps and scarlet fever in severe form, lead to an inflammation of the brain, bringing mental retardation in their wake. Finally, it must be pointed out that although mental retardation has been attributed to deficiencies in diet and general poor health, researchers have not all agreed that incidence of such cases are noteworthy. Rather, they believe that general cultural factors are more responsible for variations in "intellectual retardation" than poor health resulting from diet inadequacies. Supporting this thesis, Telford and Sawrey (1967) write: "The research studies of the past thirty years have shown quite convincingly that measures of intellectual level is influenced by the child's cultural background. A long series of studies have shown that children continuously deprived of general cultural stimulation show progressively intellectual retardation as they get older".

3.3 Classification of Mental Retardation

The degree of mental retardation varies enormously, the highest level of classification being the educable mentally retarded. These children cannot

benefit from the normal school curriculum. They may however often benefit from special education facilities. This type of instruction is designed to make them economically useful and socially adjusted within the limits of their capacities. These children possess enough intellectual ability to become independent of immediate supervision. An extensive readiness programme is the most important part of a curriculum for them.

The next group is often referred to as “the trainable mentally handicapped children”. These children develop so slowly that they cannot benefit from the curriculum suitable for the educable mentally retarded child. However, they do possess a certain degree of potential for learning to adjust effectively in the home and neighbourhood environment and they may also grow in their ability to care for themselves.

Often, they may contribute to their own support through work in a home, residential institution, sheltered workshop or other facility.

The third grouping of retarded children is the totally dependent group (custodial). These children because of severe mental retardation are unable to be trained in the areas of social adjustment, self-care or economic independence. They need almost complete care and complete supervision throughout their lives. Moreover, they cannot live without some kind of continuous care. Whether or not a child is destined to receive custodial care in a special institution, meaningful activity is important and that is what this training provides.

The speech and language skills of the retarded children are limited, but they are usually able to make their wants known. Academic skills beyond simple word recognition are not generally expected of him. (THERE ARE EXCEPTIONS). He can learn to share and respect property and this aids them in learning suitable behaviour to get on in the family and neighbourhood, but they may not be expected to become totally self sufficient or to assume responsibility for making major decisions.

The care of the curriculum for retarded trainable children is learning self care, personal routines, good health habits and safety. Such children are usually capable of learning to help in household chores and of learning necessary skill for the employment opportunities that may be available. They will require some care, supervision and probably some economic support throughout their lives – lives which can still have their share of happiness, affection and achievement in the terms of using their full potential.

Another factor which is receiving more consideration recently in laterality (the dominance of the right side-hand foot eye etc. over the left or vice versa). Where mixed dominance occurs (for example right hand-left foot) there may be confusion in the learning process. It is therefore,

advisable to determine each child's dominant eye, ear, hand and foot. If mixed dominance exists, and the child experiences difficulties which can be related to it, teaching techniques may have to be adjusted.

It is important to realise that the element of blindness contributes a great deal to the retardation factor, because of lack of visual stimulation. Blindness generally causes these children to function at a considerable lower level than their intellectual capacity indicates. A visual handicap tends to be a source of confusion to the teacher in evaluating and educating the retarded child. Auditory and tactile perception have become the primary means of exploring his environment and hence, of his education.

3.4 Prevention of Mental Retardation

Mental retardation, as is well known, is a condition and not disease. Therefore, the prospect of eliminating the condition through medical treatment is clearly not feasible. Prevention (rather than cure) of the condition is the only hope for reducing the incidence of mental retardation. Several measures are currently employed to prevent mental retardation in some of the civilised countries of the world and among these may be mentioned.

1. Dissemination of information about the nature, causes and prevention of childhood accidents as for instance, injecting the foetus of a pregnant mother (whose unborn child is in danger of survival as a result of RH complications) with red blood cells directly through the woman abdomen (Smith, 1971).
2. Provision of full-scale diagnostic services for new-born babies for purposes of identifying any abnormality early enough. Such services usually include facilities for blood examination and urine tests to detect RH blood incompatibility and other inborn errors in metabolism.
3. A comprehensive maternal care for expectant mothers at high risk. This usually mandates the expectant mothers to visit her doctor regularly beginning from the first or second month after conception. The woman should avoid such diseases as measles (especially German measles) during the whole period of her pregnancy.
4. Community-based genetic counseling and diagnostic centres. This is necessary as some types of mental retardation are the results of genetic disorders which may be identified and prevented before pregnancy occurs.
5. Control of the use of dangerous and harmful drugs by expectant mother. It is known that certain drugs are harmful not only to expectant woman who use them but ever more important, to their

unborn children. On the whole, pregnant women should avoid alcohol and tobacco during the period of pregnancy.

6. Provision of social and educational programmes to offset possible effects on the child, of maternal deprivation and limited opportunity for early childhood stimulation.
7. Community Health-Care programmes and control of infectious diseases including programmes of immunisation against measles and other diseases that could give rise to mental retardation.
8. Government-supported radiation control. Pregnant women should not be unduly exposed to X-ray examinations.
9. Well planned educational programmes provided by well-trained special education professionals to cater for the needs of retarded children and their parents.
10. Organization of health services for workers including married and working women. Such services necessarily include prenatal and postnatal clinics for the treatment of condition which if neglected could lead to mental retardation in the future off-springs of the women.
11. Nourishment of pregnant women on suitable diets rich in proteins, vitamins and minerals, as adequate nutrition lays the foundation for a child with full and vital body components.

To summarize, one cannot but agree with Smith (1971) who concludes that “The range of possibilities for preventing mental retardation is exceedingly wide and includes medical, psychological, family and social programmes of intervention”.

Teaching objectives

Objectives should be as follows:

1. To teach the practical skills that will enable the retarded to succeed in a basically non-handicapped society.
2. To enable the children to develop their maximum potential.
3. To develop a sense of independence to the greatest degree.
4. To develop the art of living cooperatively with others.
5. To develop a sense of self respect dignity and pride.
6. To develop self expression and self control.
7. To develop experiences which will increase knowledge, improve and increase skills and develop desirable habits and attitudes for an educational programme.

Teaching methods

The teacher of a class of these children is confronted with various degrees of intellectual capacities, different chronological ages and several

combinations of learning abilities and problems. A significant educational programme for such children should embrace all individual aspects. In relation to these individual differences, a planned programme of instruction should be adopted for each child and individual teaching should be given. All of the teaching done with these children is primarily therapeutic in nature and instruction under these circumstances is most effective when carried on a relaxed friendly atmosphere. The teacher must extend himself into the child's perceptual aura if he expect to reach the child in any way.

Generally speaking, goal-directed activity, such as preparing for visitor's days, exhibitions or special programmes tends to induce an optimal level of individual involvement for each child, therefore he enjoys and responds to the fact that he has a necessary part of play. A long range motivational goal may likewise encourage and give direction to a teacher while preparing the child for some type of special employment, a type of work which generally proves satisfying to the capable student.

The goals for each individual child should not be too high or too low, but should be made according to estimates of what he is able to learn. His learning potential may be derived from mental ability tests and other psychological tests. There is a tendency to place too much emphasis on the intelligence quotient; this is useful as a guide but is only one of many parts of a personality which includes the child's emotional maturity, his social maturity, his physical condition and his co-ordination. The whole child must be considered when the goals are being set. Moreover, these goals should be part of a constructive plan in which the child is encouraged not discouraged. It is also important to keep in mind the fact that the intelligence quotient does not necessarily remain constant; many factors have been known to cause it to change.

When teaching an activity to this type of children, no step in the process can be assumed to be understood. Each minute move must be taught to most of these children. For some, certain steps can be eliminated. An important technique is functional learning with a corresponding verbal description. In this process, the child learns by doing while at the same time receiving a verbal description from the instructor to establish a cognitive structure. A verbal description alone will not suffice. Generally, due to inadequate imagination the child cannot integrate and associate these ideas as abstraction. He can integrate and associate them only by touching and doing. Frequently, constant repetition is the only means of achieving some understanding. As positive reinforcement, rewards may be helpful. At first, they should be given frequently of the child does successful work. Gradually, they would be given less frequently to reduce the need for

continual immediate reward. For the younger child, biscuit or sweets may be the most effective reward. Older girls respond to perfume and hand cream which make them feel more feminine. Older boys often like shaving lotion. On the other hand, if rewards do not stimulate the child, denying him something he enjoys may obtain the desired response.

The teacher must be consistent with an effective method and a firm dynamic approach. This firmness must be balanced by the basic motivating factors of love, respect and praise. Many teachers develop, through their own experience, varying techniques which are successful and these should be encouraged.

The child should be given every available opportunity to experience things by every method possible. He should not be permitted to remain idle as this only encourages regression. These opportunities are extremely necessary because the child has often been underestimated and considered less capable than he may in reality.

In addition to the basic handicaps of mental retardation and retardation of varying degrees, the teacher may have to cope with anyone or a combination of several accompanying disabilities. Rarely does one find a retarded child who does not have other complicating problems, for example brain damage, especially cerebral palsy and orthopedic handicaps resulting in speech impediments, lack of speech, epilepsy, impaired motor control, poor coordination and emotional maladjustment. Hence, the concept of "Multi-Handicapped".

Teaching methods are therefore broken down into extremely basic steps for educating multi-handicapped children. However, not every step must be used for every child. Choose the method to each individual child's capacity.

4.0 Conclusion

Retarded children, even adults face emotional and psychological problems and it is expected that you are diligent in seeking to provide a sound basis for the child towards the development of the whole person as a productive member of the society. These individuals should not be handled with sympathy rather with empathy.

5.0 Summary

No doubt you have gone through another emotion-laden unit which ought to have changed your orientation if you have properly understood the unit. The knowledge from this unit should be part of you so that you can

help the teeming population waiting for your intervention and to give relief to them.

6.0 Tutor Marked Assignment

1. List the causes of mental retardation.
2. How can mental retardation be prevented in our society?

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Unit 4: Physical Disability

Contents

- 1.0 Introduction
- 2.0 Objectives
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 - 3.1 Definition

3.2	Causes and types of physical disability
3.3	Personal and social adjustment of physically handicapped
3.4	Prevention of physical handicaps
4.0	Conclusion
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6.0	Tutor Marked Assignment
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1.0 Introduction

Children with physical handicaps may be regarded as a heterogeneous group of children manifesting a wide variety of disabilities, many of which have to do with difficulties in mobility, including physical movement and motor coordination. Other physically and healthy impaired children are not only physically limited, but many are also intellectually afflicted to the extent that they function at subnormal levels when compared with other children of their age. Some of these children may manifest defects that are readily recognizable while others may look normal to the casual observer but occasionally exhibit conditions such as epileptic fits that surprise the onlooker. Perhaps the common factor (or denominator) of these physically handicapped children is what Telford and Sawrey (1967) have described as “individuals who are alike in not being average in physical ability”.

2.0 Objectives

At the end of this unit, you should be able to:

- define physical disability.
- list types and causes of physical disability.
- discuss personal and social adjustment of physical handicapped child.
- explain preventive measures of physical handicaps.

3.0 Main Content

3.1 Definition

Calovini (1969) points out that the term “physically handicapped” is usually employed to refer to those children “with crippling conditions or chronic health problems”, but it is not applicable to the visually handicapped or hearing-impaired. She then defines the physically handicapped child as a youngster “whose range of motion is restricted, or whose stamina is limited to the extent that he requires a special education programme”. This definition may be criticised, especially in view of the fact that many

physically handicapped children who are not otherwise neurologically impaired are rarely in need of special education at least, here in Nigeria where the emphasis is on integration in the regular schools. These children may include amputees and those whose physical impairments affect only their lower limbs.

In this chapter, however, the term physically handicapped children will be used to cover those children commonly referred to as orthopaedically, physically, motor, neurologically impaired and the crippled. They include children with cerebral palsy, spina bifida, progressive muscular dystrophy etc. these youngsters may be broadly classified (according to Wilson, 1973) as children with physical handicaps, as distinct from sensory impairments, such as blindness, deafness and also excluding speech defects, the Palm Beach County (Florida) district procedure for providing special Education for Exceptional Students, however, adds the class of pregnant students to the physically handicapped and defines the group as those who have crippling conditions or other health impairments which require adaptations to the students school environments or curricula. In Nigeria, hardly will any school authority regard a pregnant student as a handicapped person nor will such designation be welcomed by the pregnant students themselves.

3.2 Causes and types of physical disability

It is generally accepted that both prevalence and causes of physical handicaps have somehow changed over the years. Early detection, prompt medical attention and immunization have almost completely eliminated some diseases such as poliomyelitis, tuberculosis, cardiac disorder etc. Furthermore, advanced medical technology has made it possible to correct or ameliorate some physical defects or to control some physical health impairments through techniques such as surgery, physical therapy, medication and transplants. However, the same advanced medical technology is making it possible for babies suffering from severe physical impairments who would otherwise have died to survive. Also, increasing road and work related accidents are adding significantly to the number and variety of the physically handicapped and other health-impaired. The following types of physical impairments are among the most prevalent in Nigeria.

Cerebral palsy

Cerebral palsy is defined as “an impairment or loss of neural (brain) activity, caused by lack of formation, malformation or injury to, the brain either before, during or after birth” (Calovini, 1968). Keats (1965), also defines cerebral palsy as a general term designating any paralysis, weakness,

in-coordination or functional deviation of the motor system, resulting from brain damage. Telford and Sawrey (1968) however, believe that some forms of cerebral palsy do not impair motor and sensory function, which implies that damage has occurred to the particular area of the brain where the function is controlled.

Damage to the brain may give rise to disturbance in such areas as : sensory function, cognition, communication, motor function, behaviour and awareness. Thus, cerebral palsy may bring about any or a number of these disorders, depending on the part of the brain damaged and the function or functions controlled by that area.

Generally, five types of cerebral palsy have been identified.

1. **Spasticity:** The spastic form of cerebral palsy is characterized by stiff jerky movements and tense muscles in the afflicted person. These might be felt in one side of the body only. Best (1978), has noted that this is the most common type, accounting for as high as 48.4 to 81.2 percent of all cases of cerebral palsy.
2. **Athetoid:** According to Best, athetoids constitute the second largest group with incidence figures ranging from 11.5 to 13.5 percent. This type manifests as involuntary and uncontrolled movements. Calovini (1968) has described the movements of an arthetoid as “twisting, rolling and purposeless type of motion which is continuous and slow”.
3. **Atexia:** This is characterized by awkward movement resulting from disturbance of balance, due in turn, to damage to the part of the brain that controls muscular coordination and balance. A person affected by taxia falls frequently and walks as though he were drunk.
4. **Tremor:** This condition manifests as uncontrollable nervousness or shaking. The extensor and flexor muscles of the afflicted move involuntarily and rhythmically.
5. **Rigidity:** Rigidity in cerebral palsy is observed as resistance to movements of the limbs. This makes the victim to move slowly or bend stiffly.

Cerebral palsy may also be described by the number and kind of limbs that are affected in the victim.

1. **Hemiplegia:** Affects one leg and one arm on the same side of the victim.
2. **Monoplegia:** Affects only one arm of the afflicted. However, this is extremely rare.
3. **Paraplegia:** Involves the two legs of the victim, leaving his arm unimpaired.

4. **Quadriplegia:** Affects the four limbs and is one of the most handicapping types of cerebral palsy.
5. **Triplegia:** As the name implies, affects three limbs of its victim.

Cerebral palsy is also classified according to:

1. The time of onset: before, during or after birth;
2. The nature and extent of brain damage involved; and
3. The severity of the impairment.

Causes of cerebral palsy

Prenatal (before birth) causes include:

1. Infections of the mother during pregnancy. German measles (rubella), meningitis, maternal syphilis and some such infections.
2. Dissimilarity in blood groups of parents (Rh) blood incompatibility may give rise to cerebral palsy in the prenatal child.
3. Insufficiency of oxygen in the child's brain (anoxia) and anaemia of the mother are also important prenatal causes.

Among causes of cerebral palsy during birth (perinatal) are difficulties connected with the cord or placenta. Postnatal (after birth) causes are prolonged high fevers, infections such as meningitis and influenza, severe injury to the head resulting from an accident, blood poisoning and brain damage.

Treatment

Treatment of cerebral palsy consists mainly in physical therapies which may involve therapy of individual muscles, including: massaging the body or affected part moving the child's body in one direction or another to show him the correct motion and helping the child painstakingly to move his body and to relax between motions. Later, the child is helped with balancing, reaching, grasping and such self-help skills as eating and dressing.

Epilepsy

Epilepsy manifests as convulsions in its victims. These convulsions are frequently referred to as "seizures", some authorities including Telford and Sawrey (1967), maintain that these seizures may be regarded as symptoms of a disorder and not the disorder itself. The symptoms, according to these specialist, stem from some disturbance in nerve cells in a particular area of the brain. Such disturbance in nerve cells in a particular area of the brain. Such disturbance could be the result of infections, severe blow to the head, extremely high fever, or a shortage in supply of oxygen in the brain.

Children in their first few years of life may have temporary convulsive fits resulting from high fever, but these are usually short lived and cease completely before the youngster reaches the age of five. Otherwise healthy adults may sometimes have convulsions resulting from

momentary blockage of the flow of blood to the brain. Since such a condition occurs only once or twice in a lifetime, it is not regarded as epilepsy.

Kirk (1972) has identified four kinds of seizures to which the epileptic is subject:

1. Grand mal: This is nearly always followed by convulsions and occurs fairly frequently. The individual may be warned of the approaching seizure through the sense of smell, sight or hearing. Soon after, the person may develop rigid muscles, followed by jerking convulsions which last for a couple of minutes. Then the victim falls into a deep sleep.
2. Petit mal: This manifests as “a momentary loss of consciousness” and may not even be noticed by an observer, or may be observed as a slight “nod of the head, blinking of the eyes or a vacant stare”. Generally, there is a short period of inactivity but the loss of consciousness lasts for a short time, the victim resumes normal activity.
3. Psychomotor: This is the even rarer than petit mal and the victim tends to act in a curious way as if he were in a trance. He may sit still or shout or remove his clothes.
4. Jacksonian: This begins from a side of the face with jerking movements of the limbs. Progressively the whole body may be involved in convulsion, unless the victim heeds the warning signs and arrests the progressive muscular twitchings by doing something that requires physical energy or vigorous mental activity, Telford and Sawrey (1967).

Epilepsy responds to medical treatment, including the use of sedatives and anti-convulsant drugs. But in the school setting, the teacher of an epileptic child must be aware of how best to act. He should, however, be calm and try to make the child comfortable and safe by removing objects that can harm him. The teacher is however, warned not to put anything between the teeth of the child during the seizure.

Spina Bifida: This is an abnormality of the spinal cord which is the result of malformation non-closure of the vertebrae of foetus in the early conception period of the expectant mother. Other related congenital spinal canal defects are meningocele and myelomeningocele. According to Best (1978), these defects have to do with openings in the spinal canal. The defects in the embryo may later give rise to “hydrocephalus” (and enlarged head due to blocked circulation of cerebrospinal fluid within the brain), spinal curvature, lower limbs involvement, including deformities of the ankles and feet,

paralysis of the bladder and bowel, giving rise to heart disorders and mental retardation. Safford (1978) believes that even when these spinal malformations are surgically treated after the child is born, their effects may still result in paralysis of the legs and inability on the part of the child to control bowel and bladder movements.

Teachers need, therefore, to be aware of this problem and to help the child by requiring that he bring to school an extra clothing and by seating him where he can move about freely. The teacher can also prepare other children in the class to accept and socialise with the child.

Congenital or Surgical Amputation

Loss of a limb can result from an accident, surgical amputation to prevent spread of infection and the limb may be congenitally absent. Some amputees use prosthesis but others do not feel quite at ease with artificial limbs. If a child is fitted with a prosthesis early in life, he adapt to it more easily than those who delay before trying one.

The teacher should stress the need for parents to see that a prosthesis fitted to their child afford him maximum comfort and is adjusted from time to time to keep pace with the child's development. Also, an understanding of how the limb works will help a resourceful teacher to devise activities that will give the child practice in the use of the limb as part of himself. A child using an artificial limb may be prone to bad posture if he is not constantly corrected by the teacher or by parents.

Other Health Impairment

Poliomyelitis

This is infantile paralysis which may be caused by a virus. Smith and Neisworth (1975), have observed that paralysis occurs when the grey matter of the spinal cord is involved. Salk vaccine is used as a preventive measure.

Muscular Dystrophy

This involves progressive degeneration of voluntary muscles which gradually develop fatty tissues and become devitalised, even though the affected may appear healthy until he reaches the age of 12 – 18, there is little that can be done. It is said that children with this condition rarely live to adulthood. More boys than girls are affected by the condition and it is hereditary in origin. Management of this condition consists in physical therapy and sometimes, speech therapy.

Leprosy

This is described as an epidemic, chronic and mildly contagious disease, caused by *Mycobacterium leprae*, discovered by a Norwegian doctor in 1874. leprosy has been known since early times, although it is believed that many skin diseases not related to the infection were often

regarded as leprosy. The disease is transmitted by means of contact over a long period of time, and is neither hereditary nor sex linked.

There are two main types – the anaesthetic and the nodular types, the former affects the nervous system and may give rise to disfigurement of the body if not treated early. The nodular form attacks the skin and the mucous membrane. The disease is treated with a drug called dapsone. The World Health Organization (WHO) is very optimistic that before the end of this decade, advanced medical research will produce, not only a faster permanent cure, but also immunization against the disease.

3.3 Personal and social adjustment of physically handicapped

In the literature, no direct relationship has been established between physical handicap and emotional, social or personality adjustment. However, since many factors affect a child's development, the fact that many physically-handicapped children are restricted in mobility by reason of their handicaps or prolonged stays in the hospital, thus limits the range and type of their experience. Again, many parents are apt to over-protect their physically handicapped child for fear that he might aggravate his problem or elicit negative attitudes of others in the environment. Occasionally, though, even the parents themselves as well as others in the neighbourhood, reject the child because his disability is unsightly. This can only serve to affect adversely the child's concept of himself. Telford and Sawrey (1967), express this clearly in the following words, "The orthopedically handicapped child is different by reason of his disability. He may suffer pain, fatigue and undue exertion, accidents and fear of injury or social rejection. These factors make it difficult for him to form realistic perceptions of his own inadequacies or limitations. As a result of too much parental attention, emotional rejection by parents, or condescending attitudes on the part of the society in general, the handicapped child may come to feel inferior and inadequate. The resulting behaviour may be maladaptive".

Calovini (1969) has suggested that children who are severely physically handicapped can become frustrated by their inability to react promptly to questions or situations. They can give vent to such frustrations by "blaming others, repressive desires, withdrawing into fantasy, accepting defeat or compensating for the disability by finding a satisfactory alternative to the problem.

Taken together, the nature and severity of the physically handicapped can be expected to influence the personal and social adjustment of the disabled, especially as these factors elicit diverse reactions from those in the immediate environment of the physically disabled person.

3.4 Prevention of physical handicaps

Prevention of physical handicaps is directed at :

1. Early detection and treatment of conditions which, if left unattended, will result in crippling handicaps.
2. General healthcare, including immunization against poliomyelitis, the effects of blood incompatibility and rubella. Other preventive measures according to Wilson (1973) have to do with:
 - i. Medical practices for lessening the effects on the child of insufficiency of oxygen (anoxia).
 - ii. Vaccination, against maternal infections such as rubella.
 - iii. Availability of more information about certain disabling conditions of genetic origin and
 - iv. Advanced methods of controlling metabolic errors through careful attention to diets.

Avoidance of head and neck injuries arising from falls and blows will reduce the incidence of cerebral palsy, especially in early childhood and adolescence.

4.0 Conclusion

Generally, physical disabilities may be expected to have limiting effect on the individual since life involves a complex interaction of factors such as level of intelligence, sound experimental background based on meaningful interaction with the environment and to the lesser extent, maturation. A physically disabled child who is limited in mobility may also be limited in ability to make the most of his environment and this in turn could hint his experimental background to compound this situation, the disabled child might require prolonged or frequent hospitalization.

5.0 Summary

The unit has exposed you to the meanings of physical disability, causes of physical disability and types, personal and social adjustment of physical disability and prevention of physical disability. Your knowledge must have expanded by this unit and by this you become a better community health provider.

6.0 Tutor Marked Assignment

1. List the causes and types of physical disability.
2. Enumerate the preventive measures for physical disability in our society.

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MODULE 3: MISCELLANEOUS

Unit 1: Sex and Marriage life of the Disabled

Contents

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Contents
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 - 3.2 Sex and marriage among the blind
 - 3.3 Sex and marriage among the deaf
 - 3.4 The psychology of sex
- 4.0 Conclusion
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- 6.0 Tutor Marked Assignment
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1.0 Introduction

This unit is an emotion-laden type, it is a subject of worry to both parents and other relations of the disabled. It is also a matter of worry to psychologists but if properly handled and with patience, the end may be joyous. This unit is on sex and marriage life of the disabled, if you study this unit thoroughly, you will learn what you need to help someone outside there. Happy reading.

2.0 Objectives

At the end of this unit, you should be able to:

- discuss sex and marriage life of the blind.
- explain problems of marriage faced by the deaf.
- discuss the psychology of sex.

3.0 Main content

3.1 Introduction

The issue of sex and marriage life of the disabled is very interesting and important. The most burning questions parents ask when an handicapped child is born into a family is:

Is he going to have a future?

Is he going to get a job?

Is he going to get married?

These anxieties from the parents are normal and understandable. However, the parents should know that their handicapped children are

basically human beings and that the disabilities of their children are just physical which do not preclude them from achieving their life ambitions and goals. The first step through full realization of their life objectives is through systematic education and rehabilitation. Once a handicapped individual has reached a level of independence and self sufficiency, he can then make a choice of his own whether to marry or not from within or without. There are a lot of prominent and high profile handicap persons who are happily married with good-looking children. Like any other human beings, handicapped persons want to love and beloved. Consequently, their desire to love and be loved does not significantly differ from any other person. No one should be scared to approach handicapped people for love, including non-handicapped. Such an approach from the handicapped to the non-handicapped should be received with openness and frankness without any sentiment. Of course, the handicapped person must be very polite and decent in his love approach. Incivility on the part of the disabled may result into derogatory and negative comment by the non-handicapped.

One may wonder how a blind person will make an independent choice of the person he loves. There are so many ways for a blind person to know this. Blind people are very sensitive to touch, for example, the smoothness or roughness of the skin of a person, from the surface of the skin, the blind person can assess the personality of the person. Also the quality of the voice of the person can easily inform the blind about the person. Again, the type of odour coming from a person can be perceived by the blind and from the clue receive by him he can quickly make the judgment of the person. From the clues coming from the sense of touch, hearing and smell, a blind person can assess the personality of anybody who comes his way; for example, he can know whether the person is tidy, tall, beautiful, gentle or harsh. Therefore, no mistake should be made by anybody that the blind person can not appreciate beauty and can not make a choice independently of persons they love.

From experience, there is higher rate of marriage among the highly educated handicapped persons than those less educated. This observation is due to the fact that highly educated disabled are more likely to get the good jobs with good pays than the less educated one. Good job with good pay create a conducive economic climate for a good marriage, since no able-bodied persons will enter into a marriage with a handicapped without assurance of comfortable living.

However, this does not mean that there is no genuine love on the part of able-bodied person before getting married to the disabled. It is necessary to clear the minds of the general public on misconception and

misinformation that handicapped parent will often give birth to handicapped children. This assumption is baseless and unfounded and should be discarded with a wave of the hand. The fact is that most of the disabled whether getting married to non-disabled or disabled like themselves, don't necessarily give births to handicapped off-springs. Many handicapping conditions are not infectious and hereditary. Even if at all handicapped person give births to handicapped babies, it may not have anything to do with hereditary. It is true that some disability run from family to family which may indicate genetic nature of the disability. In this case, if a handicapped person marries from a family having the same genes with him, there is a greater chance that they may produce a disabled child, the type that is common to both disabled couple. The surest way to avoid a mistake is for the couples intending to marry each other whether handicapped or non-handicapped is to have their blood tested by a qualified medical doctor. No fear should be entertained by anybody of normal marriage between the handicapped and able-bodied person. There is over ninety percent (90%) chances that their off-springs will be non-handicapped, if examples of those who have undergone such marriages are anything to go by.

Marriage is a personal choice of anybody, which should occur without any undue pressure from anybody. In our society, it is customary to get married for the purpose of bearing children. In the light of this age long tradition, every parent in our culture will go to any length to pressurize his children to get married for the sole purpose of bearing children. It is not surprising therefore, that everybody handicapped or non-handicapped in our culture wishes to marry at all cost. In Nigeria, handicapped getting married is not automatic because of negative and stereotypic thinking of the people. Our society has a tendency of under-classing the disabled to the extent that they are regarded as objects of pity instead of subject of dignity. The downsizing of the capability of the disabled affects their magnetism in dating and in love making. However, if the disabled themselves have positive self image and does not allow disability to limit them personally and professionally, it will be easier for them to make a breakthrough in the world dominated by able-bodied persons.

3.2 Sex and marriage among the blind

Sex and marriage among the blind is not in any way different from any other form of sex and marriage. What makes it different perhaps is the unholy attitude of our people which relegates the blind the status of second class citizens. This attitudinal barrier can be corrected by the blind themselves by demonstrating their capabilities to achieve lofty goals beyond a shadow of death. If the blind prove that they are equal in all respect with

their sighted counterparts, it will then be easy for them to make free choice of what they consider important to them without any fear of discrimination and custodial treatment.

From what is known, the number of blind men who get married either to sighted or blind ladies is higher in number than blind ladies who get married at all. The reason for this is not known, one thing that is clear however, is that blind men who have economic powers and desire for marriage struggle to marry sighted ladies. It is only when this attempt fails that they turn to blind ladies to marry. This unwillingness of the blind men to engage blind ladies in marriage create a shortfall of men to marry blind ladies. Blind men who run after sighted ladies to marry are doing so because they wish to have absolute independence in their homes. It is axiomatic that if one of the couples is sighted in the family, the much needed independence in the home will be maintained. For example, one of the couples who is sighted can read private document to the blind couple, such as bank account statement, letters, bills and so on. A sighted couple will also assist to maintain the balance created by the lack of sight of the other couple. For the purpose of emphasis, consideration for independent living forces many blind men in looking for sighted ladies to marry. Blind ladies on the other hand have a little difficulty in getting married to either the blind or sighted men. This difficulty encountered by blind ladies is not that they lack accepted personality or beauty but it is as a result of erroneous belief of the people that blind married ladies can not perform household duties expected of a housewife. This belief is false. A blind lady with necessary training and encouragement can perform all the expected duty of a full house wife, which includes, breastfeeding, bottle feeding, spoon feeding, dressing and bathing of a new baby.

Sighted men in particular are encouraged to marry blind ladies of their choice. The fact is that if any sighted man decides to marry a blind lady, there is nothing that is good like it and that man will never regret it. First and foremost, blind housewives are very loyal, faithful and obedient to their husband. In fact, any sighted man married to a blind lady should be assured that his blind wife will not engage in any licentious behaviour. Above all, a blind housewife is always supportive to her husband.

3.3 Sex and marriage among the deaf

The problems of marriage faced by the deaf are similar to that faced by the blind population. The only thing that is different is that the deaf people appear to prefer to marry themselves-(deaf getting married to the deaf). This is not to say that they do not get married to some hearing people when an occasion demands for it. Everybody knows that communication

plays a pivotal role in any successful marriage. Based on this important information, deaf people all over the world find it more convenient and natural to engage themselves in marriage than the other way round. It is needful to say that sign language is the chief means of communication by the deaf. Deaf couples therefore can harmoniously live together, using sign language as a means to communicate with each other. A family without proper channel of communication will break prematurely. There is however one important disadvantage in deaf marrying the deaf. The disadvantage is that their babies may experience delay in acquisition of speech because their deaf parents do not use voice to talk to them. Of course, this difficulty can be quickly rectified if the deaf parents encourage their babies to mix freely with the babies of the hearing neighbours from whom they can learn how to speak by imitation. Similarly, deaf couples are encouraged to send their children early enough to daycare centres of their locality where their children can mix with the children of hearing parents where they can also learn to speak by imitation. The children of the deaf couples as they grow older will have to learn sign language so that they can communicate with their deaf parents.

In some cases, deaf people get married to hearing people or vice versa. This is very much in order and in fact it is encouraged so that the much talk about “equality” between the handicapped and the non-handicapped can be realized. The disabled person considered it their inviolate right to achieve level of equality in the society and by the way of handicapped person getting married to the non- handicapped is a way of achieving such equality. What is considered most important in marriage, whether handicapped marry themselves or marry non- handicapped is love, understanding, sharing and caring. This is what marriage is all about.

3.4 The psychology of sex

Biologically, sex has a restricted meaning which confines to the process of reproduction and the perpetuation of the species. In terms of human behaviour, it is impossible to describe or even to define that which is included under sexual activity. As yet, sociology and psychology are unable to delineate the extent of the problems that sex introduces into their respective field. It will appear that sexual activity is both more and less than the sociologists and the psychologists teach. Sociology cannot demonstrate to what extent sexual activity finds its way into religious observances. Enough is known to indicate that much of the sexual growth of every member of society lies in that direction. Likewise, psychology cannot demonstrate clearly to what extent sexual growth determines motivation patterns and establishes goals, but enough is known to indicate that a large part of this phase of mental life is structured in a sexual configuration. Such

forms of sexual activity are not sublimations or perversions for the normal, social human being. They are as much a part of the sexual life of the normal person as is the desire for the opposite sex, although they possess additional meanings and relationships. An external, asexual substitute that might be introduced to draw off and use up the so called sexual urge in an asexual way will not function at all unless it possesses a sexual meaning and actually becomes incorporated into the sexual activity of the individual.

Animals, when compelled to mature in a restricted and limited environments, will incorporate into their sexual activity, patterns material and objects that would be entirely devoid of any sexual significance and meaning to the normal members of their species. When the proper stage of maturation has been reached, the male dove reared in solitary captivity will copulate with the hand of his keeper. The sexual expression develops only in that direction and only to that extent. Likewise, if a ring-necked dove is reared with doves other than its species, its sexual activity will never include the members of its own species but will be confined to the species with which it has been reared. Complete sexual activity has been reached in that configuration and there it will always remain. In most species of domestic animals reared in a condition of segregation, lack of stimulation and sexual development will induce masturbation and forms of homosexual activity.

Human beings are much more highly sexual than any other animals. With their increased mental equipment their sexual environment has expanded infinitely beyond that of any other species. The human being is not restricted to some specific situation for sexual stimulation and information from books, pictures, theatres, hymns, sermons, basketball games and innumerable other sources.

Man's sexual configuration is further expanded by the fact that the mating season includes the entire year rather than a seasonal burst of activity as in animals. The forms of sexual activity that are incorporated into the lives of human beings over and above those required for the process of reproduction, the Freudians represent as perversions or as asexual sublimations of the urge. They are not more asexual or sublimational than the rounded biceps, full chest and swift, springy run are anti-physical fitness. In our modern civilization, the specific employment of the sexual activity for reproduction, like the employment of the physically fit body in personal combat, is of secondary importance. It is much less necessary to have offspring than it is to be a normal, mentally healthy member of society, with the same moral and ethical values as one's fellows. It is much less necessary to be able to strike down and overpower one's business rivals physically than it is to possess a healthy body that is capable of sustaining the fatigue of

the day's work. In modern times, socially and individually, the primary necessity of each is gone. The most important function of sex at the present time is the creation of a personality that will meet the demands of modern society. That and nothing short of that, must be the aim of all sex education.

4.0 Conclusion

Parents and relations of disabled express a lot of anxieties on their handicapped ones. These anxieties even though quite normal but they need to understand that the disabled is a human being who has all potentials embedded in him/her. As health providers, we can assist the disabled to attain his or her goals in life which should be our primary target.

5.0 Summary

This unit has exposed you to the sex and marriage of the disabled. This is a subject of concern to every parent of the disabled and it is a joyous and fulfilling situation when the parents/relations of the disabled see their disabled children or wards achieving this goal in life. Every health worker should ensure that the affected individuals or families are assisted to maximize their potentials to achieve a better way of life.

6.0 Tutor Marked Assignment

Discuss the sex and marriage life of the blind.

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Unit 2: Employment Outlook of the Disabled

Contents

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1.0 Introduction

The first thing that worries the mind of a parent immediately after the birth of a disabled child is if that child will be independent and earns a living by gainfully employed. Hopefully, a disabled child who has sufficiently gone through the process of education and rehabilitation is most likely to be gainfully employed in future. It must be mentioned however, that getting employment in the labour market dominated by the able-bodied person is not easy for the disabled. In Nigeria, seventy percent of employable disabled persons are unemployed. This high percentage of unemployed disabled in this country is very alarming and undesirable. For this reason, all efforts should be made by the government, private sectors and individuals to change the trend.

In 1948, the United Nations Organization under its Human Rights Acts declared that all persons, should enjoy equal treatment and opportunity.

This declaration of equality seems not to work in our society because the prejudicial treatment and lack of opportunities is largely responsible for high percentage of unemployed disabled persons. If the general public stops discrimination against disabled persons on the ground of their disabilities, the trend will considerably reduced. The handicapped should be judged by their abilities and not by disabilities.

In most countries of the world, one finds that employment opportunities for disabled persons are limited by obstacles summarized by ILO as:

1. Attitude of the community;
2. Economic situation in the country;
3. Resistance of employers;
4. Attitude of trade unions; and
5. Attitude of disabled people themselves and their families.

In some African countries, some kinds of disabilities elicit hostility from the community while others generate sympathy. Some disabled people may not be allowed to engage in gainful employment because the community sympathises with them and would rather provide for them, than let them work because the community feels they should be spared the added strains resulting from work, while there are able-bodied people who could do the work even better. The economic situation in most third world nations is so deplorable that many able-bodied trained workers (sometimes with large families to support), cannot find employment. This situation makes employers very wary about offering employment to the disabled. Moreover, these employers are afraid that trade union might protest and disrupt order in the company if jobs are given to disabled people without the approval of the trade union leaders. Again, in certain situations, disabled people have a sense of insecurity and a feeling of unwantedness. Under such conditions they might decline to take up even the most promising jobs. International Labour Organization (1973), recommended that disabled persons should be offered the same opportunity as their able-bodied peers to accept jobs (for which they are qualified) with employers of their own choice, and emphasis should be on the working abilities of disabled persons should be free:

1. To accept competitive employment such as are offered by factories, offices, shops, farms and government.
2. To engage in self-employment.
3. To work in craft centres and cooperatives and if they are severally disabled.
4. To work in sheltered workshops.

To increase available jobs for the disabled, all vocational rehabilitation organizations, non-governmental organizations (such as the Nigerian Employers Consultative Association, Nigerian Chamber of Commerce) and individuals could organize national, state and local campaigns to educate the public by means of advertisements, lectures, workshops, seminars and exhibitions, on the problems, needs and potentials of the disabled, and also on the advantages of public investment in the education and rehabilitation of the disabled. Such campaigns will no doubt, engender the kind of community spirit that can influence private employers to give more employment to the disabled.

2.0 Objectives

At the end of this unit, learners should be able to:

- define vocational rehabilitation.
- list factors that may hinder the employment of the disabled.
- enumerate types of employment for the disabled.
- discuss the legislative provision for the employment of the disabled.

3.0 Main Contents

3.1 Vocational rehabilitation

According to the International Labour Organization (ILO) (1973), the term “Vocational Rehabilitation” means that part of the continuous and coordinated process of rehabilitation which involves the provision of those vocational services e.g. vocational guidance. Vocational training and selective placement, designed to enable a disabled person to secure and retain suitable employment.

The rationale for vocational rehabilitation is the principle that in an organized society, each member should have a right to an opportunity to work for a living and make some contribution to the development of the society. It is the responsibility of the society to equalise by means of special services, a handicapped person’s opportunity to earn a living equal to an opportunity available to a non-handicapped individual. In support of this principle, Merton (1959) wrote: “The status of independence is self-sufficiency, hard work, industriousness, contribution to society and upward social mobility of the individual. To the extent that the handicapped individual is unable to reach these goals, he suffers a loss of personal dignity, prestige, both as a member of society and as a member of a family”.

It is a fundamental truth that attainment of adulthood in any society is equated to the achievement of self-sufficiency and independence. Single-handedly, the handicapped person attains adulthood and sometimes reaches old age, without any prospect of achieving independence or self-sufficiency. As is well known, it is not easy for an average able-bodied Nigerian to

achieve self-sufficiency in the Nigerian society today. It is even more difficult for a handicapped Nigerian without the benefit of a good education. This fact underscores the need for equalising the handicapped person's opportunity to earn a living, to that of his able-bodied peers.

Vocational rehabilitation as a process of over-coming disabling conditions associated with disability, involves building new lives because the services of vocational rehabilitation generally include professional services rendered by Physicians, Teachers, Psychologists, Psychiatrists, Physiotherapists, Guidance Counselors and Social Workers. These services are made available to the rehabilitatees on an individual basis. In developed countries of Europe and America, some of the many disabling conditions receiving attention from vocational rehabilitation include: blindness, heart diseases, hearing impairment, speech defects, mental illness, epilepsy, mental retardation, diabetes, orthopedic impairment and even alcoholism. Services are provided for both those capable of achieving full-time competitive employment afterwards, and others so severely handicapped that they are only capable of part time or sheltered employment.

Any vocational rehabilitation centre should be able to teach alternative techniques to the client during the course of the training. If any handicapped persons is to succeed at a working place he must acquire competence and confidence through the learning of "disability skills". The disability skills which are otherwise known as alternative techniques include typing, Braille literacy, orientation and mobility etc for the blind and sign language for the deaf. Through the mastering of alternative techniques as mentioned, the disabled can perform on terms of equal basis like their non-disabled counterparts in any job situation.

By simple reasoning and sometimes by legislation, disabled persons are allowed some reasonable accommodation at their places of work. What this means in essence is that the disabled employees are to have some special privilege to facilitate essential performance of their duties. For example, blind employees need reasonable accommodation in the area of having their own readers or secretaries, Braille writers, reading machines and other supportive technology.

On the other hand, deaf workers need reasonable accommodation by having access to an interpreter who will communicate with him in sign language. Other categories of disabled such as the paraplegics who are always on the wheel chairs need reasonable accommodation in architectural design of the buildings where they work so that their wheel chairs can move in and out of the building unhindered. In advance countries of Western Europe and America, legislation were enacted by the government or

agencies to force employers to allow the principles of reasonable accommodation for the disabled in their employment. Similarly, legislative provisions should be made in Nigeria to enhance productivity and efficiency of disabled workers.

The most recent form of vocational rehabilitation is Community Based Vocational Rehabilitation (CBVR). The introduction of this type of rehabilitation is spreading gradually through the breadth and length of Nigeria. The idea of Community Based Vocational Rehabilitation (CBVR) is a part of the wider concept of Community Based Rehabilitation. The term CBVR itself, was first used by the World Health Organization (WHO) in 1978. The term was employed in the World Programme of Action for Disabled persons which was the guiding document for the UN Decade of Disabled Persons (1983-1992). The basic philosophy of CBVR was that the integration of persons with disability into society was poorly carried out through the creation of special centres or special services exclusively for such persons. It was suggested that communities should adjust to the conditions of persons with disability and what the process of rehabilitation must be based in communities rather than in special centres under conditions in which able persons and those with disability are assisted together.

The strategy of limiting the impact of handicap due to disability is called REHABILITATION. It takes diverse forms – medical, physical, social, educational, religious, vocational etc. This Vocational Rehabilitation is one of the ways of reducing the disadvantages of disability on the sufferer.

CBVR is an offshoot of Vocational Rehabilitation in general. The difference is that while VR may be centre-based or community-based, CBVR is only community based. The idea of community based vocational rehabilitation started in Europe and America. It was introduced with such terms as “de-institutions”, “mainstreaming”, “normalization”, “synchronization” etc. as rallying ideas in VR. The attraction to CBVR was due mainly to the problems and short-comings of institutional or centre-based rehabilitation. These centres which were increasing in expense, could accommodate only a relatively few in mates, while after-care reintegration of inmates into the wider society was severally problematic. Our own Federal Rehabilitation Centres in Emene, Kaduna, Kano, Majidun, Maniya and Sokoto are living illustrations. Thus unlike VR generally, CBVR is community based. The strategy is to achieve rehabilitation with the combine efforts of all stakeholders-PWDs, the family members, the community and its leadership, NGOs and the business community. Government takes a back seat as a facilitator stimulant, but not an active participant. It merely creates the environment and encourages the other parties to cooperate as to achieve

specified goals. These stakeholders participate in planning, decision-making, administration and monitoring of CBVR.

Thus, while under traditional CR PWDs were seen as “case” or “inmate” who receives charity from sympathetic philanthropists and Governments under CBVR PWDs are regarded as citizens with particular needs who can be empowered to achieve life fulfillment, irrespective of their disability. So they enjoy understanding not sympathy. CBVR cancels the negative stigma attaching on charity approaches and builds on the confidence engendered by integrative training as opposed to the segregative.

Up till now, this programme has been adopted in Oyo, Kano, Kastina, Taraba, Anambra, Sokoto states. Others are expected soon to come on board.

3.2 Factors hindering the employment of the disabled

Many employers of labour think that employing disabled workers will constitute risk and danger as they mistakenly believe that handicapped workers are easily prone to accident at work. This belief may be normal, but it is not always the case. The truth is that majority of disabled workers are always safety conscious and mindful of what they do at work. This is to say disabled employees are always extra careful in the performance of their duty. From available records, disabled workers have fewer accidents at work than non-handicapped workers. In addition, the disabled employees are always hard working, dedicated, loyal and punctual. Other discriminative and negative attitude of the people tend to project handicapped persons as inferiors, helpless, hopeless and dependent. This other attitude is a major factor hindering the employment of the disabled. Quite often, the disabled are subjected to unfair treatment by prospective employers of labour who irrationally conclude that disabled persons can not perform without giving them opportunity to try. If the disabled are given opportunity of employment, they will be fantastically productive and help our economy to grow by becoming tax contributors instead of tax consumers.

Although negative and discriminative attitudes of the public contribute to low employment of the disabled. The disabled themselves contributes to self unemployment by under-classing themselves. The disabled are supposed to prove to the whole world that they are capable and equal to the task. The disabled should look at themselves as being equal to their non-handicapped persons so that they may not be relegated to the background. In those days, the American blacks (negroes) of the United States rated themselves inferior and low to the white and as such they were treated as inferior by the white Americans. During that time, the black American used to stretched their hair and bleached their skins so as to look as the white. However, some years later the black Americans realized that

their black colour is more beautiful and dignified. They stopped every move to look like the white and accepted their own identity as black people.

After that, they started to use slogans such as “black is beautiful”, “I am black and proud” and so on. After changing their attitudes towards themselves they are now enjoying their rightful position in America. Likewise, the disabled themselves should accept their own disabilities and stop behaving as if they are handicapped. Being an handicap does not necessarily prevent one from being a successful person in life and as such if you accept your disability the public will reciprocate by accepting you as an equal member of the society. In this regard, opportunity for employment among others will be extended to you. The disabled should demonstrate their capabilities to work successfully by volunteering to work without pay in order to convince the employers of their suitability for the job. When they embark on this voluntary service, the employer will be convinced beyond any reasonable doubt that the disabled can be competitively and gainfully employed. For example, a blind qualified teacher who is an applicant can go to a school and demonstrate his capability to teach sighted students. If he does the job satisfactorily, one day he may be recommended for a permanent teaching appointment. Similarly, a deaf engineer can go to a company or a ministry and engage in engineering work of his specialty free of charge. Before anybody knows it, the deaf engineer is offered permanent appointment. Above all, the misconceptions and misperception of the public will plummet if not totally eradicated if the disabled concerned show some degree of competence and confidence in any situation they find themselves.

3.3 Types of employment

As it has often been repeated that handicapped persons can perform the whole range of employment with proper training and encouragement, blind people were traditionally associated with music as a profession in the past. The situation is now different with the availability of sophisticated supportive equipment which makes it possible for blind people to venture into any occupation. Therefore, it is not surprising to find the blind competitively employed in high profile profession, such as law, medicine, teaching, banking, politics, business, engineering etc. Perhaps, the only profession which the blind has not ventured into is driving.

Apart from people who are born and have become used to their blindness, other people became blind as adult. The adult blind people who are already employed before they became blind don't need to abandon their job as a result of their blindness. What they need is rehabilitation which involves the learning of alternative skills or life coping skill. These alternative skills include typing, reading and writing Braille, orientation and

mobility, use of supportive technology such as reading machines and computers. After acquiring the alternative skills, the adult blind person can go back to his former job with little or no modification. For example, if one is a medical doctor before going blind, after mastering tools of blindness, he can be back to his normal profession. Of course, he will no longer be able to perform surgical operation as a blind doctor if he has been doing so as a sighted doctor.

Like the blind, the deaf and the physically disabled can perform the whole range of duties which the general public thinks is impossible for the handicapped to do. However, it is unthinkable and unreasonable to expect a deaf person to become a singer. People with mental retardation on the other hand can only be encouraged to engage in low level jobs such as cleaning, running errand, car washing, shoe making etc. What is of paramount importance is for the society to allow the handicapped to contribute their own quotas, no matter how small, to the development of their immediate environment. If the handicapped are encouraged to be useful to themselves by giving them opportunities of employment, directly or indirectly, they are automatically useful to the society at large.

3.4 Legislative provisions

In recent years efforts have been made to establish in Nigeria the “quota system” whereby employers are mandated to reserve a certain proportion of available jobs in their companies for disabled persons. President I. B. Babangida has often been cited as stating in his 1986 Budget speech that all employers of labour in Nigeria should employ at least two disabled persons out of every hundred employees in their company. Since that time the Rehabilitation Council had spearheaded efforts to translate the President’s pronouncement into a statutory enactment binding on all employers of labour. When this finally happens Nigeria will not be the only country that compels employers to accept a fixed proportion of handicapped employers, for this is already the case in Belgium, Brazil, Bulgaria, Burma, Czechoslovakia, Egypt, the Federal Republic of Germany, Italy, the Netherlands, Poland, Arab Republic and the United Kingdom, where the percentage ranges from 2 to 10 percent.

In Nigeria, there is no clear cut policy and legislation to guarantee employment of the disabled. The directive of President I. B. Babangida in 1986 has never been enacted into law; hence, the directive was ignored by most employers of labour. In the past, voluntary organizations, such as Nigeria Association of the Blind, National Association of the Deaf and Nigeria Advisory Council for the Blind have made representations in both State and National Assemblies to initiate bills that will safe-guard full

employment of the disabled as well as elimination of discrimination against the handicapped. Unfortunately, little or nothing has been done by the legislators to address the issue. Apart from National Assemblies, State and Local Government Assemblies can also make laws to guarantee equal opportunities for the disabled.

It is hoped that the new democratic dispensation in place in this country will move fast to enact meaningful laws for its handicapped citizens that will guarantee their fundamental human rights.

It has to be re-emphasized that most of the disabled persons gainfully employed are married to their job to the extent that they have become workaholics in their respective places of work. In other words, disabled workers are hard working, dedicated, loyal and ever punctual. This is to say that the deafs are deaf while the blinds are not bland. Having said all this, disabled people who have mastered alternative techniques and who have a positive philosophy about disability can tackle most challenges in education, career and daily life.

4.0 Conclusion

There is the need to de-emphasize the obstacles placed before employment opportunities of the disabled such as poor attitudes of the society, resistance of the employers, poor attitude of the trade unions and poor attitudes of the disabled themselves and family members to work so that the disabled can be gainfully employed either as self-employed or engaged by other employers of labour.

5.0 Summary

In this unit, we have looked at various employment opportunities of the disabled, problems faced by the disabled in securing jobs, types of employment opportunities for the disabled and legislative provisions for disabled securing jobs. It is hoped that you have learnt greatly and the knowledge acquired in this unit will improve your services to the disabled.

6.0 Tutor Marked Assignment

List six (6) factors that may hinder disabled from securing an employment in Nigeria.

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Unit 3: Old age as a Disability

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1.0 Introduction

Everyone prays to reach old age before passing away to the world beyond. Old age does not necessarily come as a disability except if one does not live an active and healthy life, as well as not observing good health habits. If one does not want old age to become a disability, one should refrain from self-destructive habits such as smoking, heavy drinking and

laziness. Also one should eat balanced diet and exercise regularly. Although, many old people are medically fragile, however, their old age can become a disability if they lack physical, mental and emotional powers to perform certain duties expected of them by the society. Caring for old people is very much important that the United Nations set a date every year to highlight the problems and aspiration of the old people. Every October Second is declared as old people's day throughout the world. Happily enough, every state if Nigeria observes the date in accordance with the declaration of the United Nations.

2.0 Objectives

At the end of this unit, the learners should be able to:

- define ageing.
- discuss the trend of ageing process.
- enumerate practical tips for cares of old people.
- list some problems of the aged.

3.0 Main content

3.1 Active Ageing for Everyone

Old Age need not mean Poor Health or Disability. Look around you, count the number of older people in your community. Then think back ten years or twenty years. How many older people can you remember from those days? (Remember you were younger than yourself, so may be people appeared older than they really were!). The chances are that you will find many older people now than you did in the past.

This is a trend that is happening worldwide. More people can now expect to live longer and reach old age. Better living conditions, access to clean water, good food and improved medical care mean that more people survive childhood illnesses to reach adulthood and later old age. In addition, more effective family planning in many countries means fewer children being born, so adults and older people are also increasing as proportion of the population.

These two factors – increased life expectancy and falling birth rates means that population on the increase. This process is happening fastest in developing countries. In 1998, there were an estimated 58 million people worldwide that were over 60 years old. Over 355 million (61%) of these people lived in developing countries. These numbers are likely to at least double over the next 30 years.

As more people live longer, disease patterns begin to change. More people are affected by conditions such as diabetes, heart problems, cancer and mental health problems. This process is often called “the health transition”.

Some countries still have a low life expectancy, usually because of high death rates for children. Even where life expectancy is low there will still be some people who reach old age. Recent years have seen lower life expectancy in some African countries because of deaths resulting from HIV-related illnesses. However, most HIV-related deaths have affected young adults so the numbers of old people have continued to increase.

We often hear message about the importance of good health for babies and children, young, adult and pregnant women. But we rarely hear messages about supporting good health and preventing injuries and accidents among older people. In fact, good health is just as important to older people as it is for other groups.

Many older people fear that if they become ill or have an accident, they will impose an extra burden on their family. A key factor in healthy active ageing is the ability to maintain independent living for as long as possible.

An active way of life enables older people to:

- Stay healthy and be less likely to develop serious illness or disabilities.
- Work and earn some wages.
- Contribute to family and community life.
- Remain respected and independent.

As people grow older they are more likely to face specific health problems that are related to old age. Bones become more brittle, joints stiffen and muscles weaken. The body organs such as heart, lungs and kidneys become weaker. Often eyesight, hearing and speech are less clear and less sharp. In some people, the mind is also affected.

Ageing affect each person differently. A person who has been healthy during his life is more likely to have a long and healthy old age than a person who has severe or frequent illnesses. Family support and mental wellbeing are also important. We have all heard of people who aged rapidly following traumatic events such as conflicts, migration, homelessness or deaths of family members.

Older people can stay healthy by:

- Receiving care and support.
- Remaining active physically and mentally with purpose and
- Independence, ensuring adequate and nourishing food, warm clothing and housing, having access to healthcare and health education, recognizing health problems early and taking appropriate action.

Health and social services in developing countries tend to focus on children and women. Few services include health needs of older people,

including older people with disabilities. However, services will need to adapt to reach and support the continuing good health of growing numbers of people reaching old age. This will be a challenge for all workers involved in health and disability.

3.2 Staying Mobile and Active

Typical tips for cares of older people

Dressing:

- If a person has had a stroke, or has a stiff arm or leg affecting one side of the body, it is easier to dress the weaker, less mobile limb first because less movement is required. Similarly, undress the weaker limb last.
- A less mobile person often finds it more comfortable to wear loose-fitting clothes with elastic waist bands and cuffs-large buttons are easier to handle than small ones.

Sitting down and getting up:

- A person with stiff joints, weak muscles or poor balance will find it hard to get up from a low chair or stool. Ensure that their chair is high enough for their hips and knees to bend at right angles when sitting. A chair with armrest is best for sitting down safely and getting up easily. A stool with four legs is safer and more stable than a three-legged stool.
- To sit down, the person should walk up close to the chair, then turn around so that the backs of their legs touch the chair. They should then hold the armrests firmly and lower themselves down slowly into the chair.
- To stand up, the person should move their bottom forward to the edge of the chair, placing their hands on the armrests with their feet about 25cm (10 inches) apart. They should then lower their head so that they are able to rock their weight forward and lift their bottom off the chair before standing up straight. Make sure their balance is steady before they start to walk.
- The person should follow the same steps when getting up from the side of a bed or toilet (with hands pushing up from the bed or set where there are no armrests).

Climbing steps:

- A less mobile person should place his stronger leg on the step first and use it to pull their body weight upwards. The weaker leg and stick to follow. A person with stiff knees often finds it easier to walk down stairs facing backward.

- Step over 10cm (4 inches) in height can be altered to make two half steps by fitting a wooden box half the height of the step. It may also be helpful to fix a rail to a doorpost or wall.

Walking with a stick

- Ensure that the stick is the right height for the person using it. When the person stands upright with the stick held by the side of his body, his elbow should be slightly bent.
- The stick should have a round head or curved handle to make it easier to grip. A small piece of rubber (from an old car or cycle tyre) nailed or stuck on the bottom of the stick will protect it from wear and will stop it slipping on the ground. It is easy for someone to trip on loose mats, these should be removed.
- If a person has a weaker leg, they should hold the stick on the opposite side of the body, so that a normal walking style is maintained (with left arm and right leg moving forward at the same time and vice versa). A person may need to use two sticks, but should continue to use a normal walking style.

3.3 Problems of the aged

Today, in almost every country, women are living longer than men. The largest differences are in the developed countries. For example, in Europe, an average woman lives for eight years longer than a man. In Africa, women live only three years longer than men. The difference increases with age. Just over half the world's population aged 60-65 are women. However, 65 percent of people aged 80 or over are women.

Although, women are likely to live longer than men, it does not mean that they are healthier. In general, women and girls have lower status in society than men and boys, and therefore, have fewer opportunities for adequate nutrition, prompt healthcare and good education. This affects their health, welfare and income throughout their lives. Even if they live longer than men, they are more likely to experience poverty, poor health and disability in old age.

Older women also face particular social problems. Women generally marry men older than themselves. In many societies, women are unlikely to marry again if they are divorced or widowed. Most older women are widows. Some widows remain living with their extended family, usually undertaking domestic chores or looking after grandchildren. However, many unmarried women live alone in poverty, especially if they lack family support or status in the community.

Older men also face specific problems. Men are more likely than women to smoke or abuse alcohol, and to eat an unhealthy diet. Men are

more exposed to injury from heavy industrial work, including damage to their sight or hearing. Men are also more likely to die as a result of violence—whether in accidents, murders and suicides. As more men reach old age, they face increasing risk from prostate cancer.

However, despite these problems, an old man may have a better old age than a woman. A man is likely to remain living with, and supported by, his wife or an extended family. Even if he is no longer a leader, an old man may retain respect within the community.

Where HIV/AIDS is wide spread, other people may become carrier for younger family members with the disease. In some countries, it is common to find older people (mainly older women) working to support and care for their orphaned grandchildren. They continue to work as family bread-winner, then return home to clean and cook. Unless the wider community is able to give extra support, the whole family suffers—the career and the children live in poverty and children are likely to drop out of school.

3.3.1 Ageing and Eye Problems

Worldwide, about 45 million people are blind, 90 percent live in developing countries. Another 135 million people have severely impaired vision. Much blindness is preventable if appropriate actions are taken early enough. Some types of blindness and impaired sight are caused by childhood malnutrition (vitamin A deficiency) or infections such as trachoma or onchocerciasis (river blindness).

Other types of eye problems are more likely to affect people as they grow older. As more people reach old age, these conditions will become more common. However, early identification of eye problems and proper treatment can cure eye problems or prevent it from becoming worse.

Cataract

Cataract affects about eighty million people worldwide. The lens of the eye clouds over, preventing light from entering the eye. This leads to worsening vision and, eventually, to total blindness. Most cataract is related to ageing, although sometimes children are born with the condition. Cataract can be cured by surgery to remove the clouded lens and replace it with an artificial lens (an intraocular lens) or by spectacles. Surgery is often carried-out at eye camps or at district hospitals by special teams, reaching large numbers of people. This way the operation is relatively cheap.

Glaucoma

Glaucoma affects more than five million people worldwide. The main sign is increase pressure in the eye (intraocular pressure), leading to loss of vision. Glaucoma tends to be related to ageing. Intraocular pressure can be reduced with eye drops, pills, laser surgery, eye operations or a combination

of methods. However, because vision loss due to glaucoma cannot be restored, early identification and treatment is vital.

3.3.2 Identifying Elders' Needs

It is often assumed in African society that dependent older people are cared for within their own family, usually in extended families (several generations living together). In Nigeria, Zanzibar, Tanzania, most older people continue to live in extended families. However, this is changing as young adults move away from villages to towns and cities.

4.0 Conclusion

Old age is a state that should be soothing to the individual that has spent his prime age successfully. It is a stage of rest after rigorous labour to make a living, a better and enduring future. It should be a time to count one's blessings and give glory to the Almighty. A stage to prepare for a peaceful departure from this earth and meet God in the world beyond. It is a stage every individual prays to see in good health.

5.0 Summary

It is your responsibility as a community health practitioner to be knowledgeable in the management of old aged individuals so that they can live a healthy and fulfilled life and to have a peaceful departure to the world beyond. It is hoped that the knowledge you have acquired in this course will enable you to perform your professional roles better.

6.0 Tutor Marked Assignment

1. List practical tips for the care of the aged in our society.
2. Enumerate four (4) problems of the aged.

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