

B.Sc (REHABILITATION SCIENCE)

PAPER I

HEALTH CARE AND PREVENTION OF DISABILITIES

Unit 1 Introduction to Health and Disease

- 1.1 Definitions, Concepts, Dimensions, Determinants
- 1.2 Indicators of Health and Health Service Philosophies
- 1.3 Disease: Concepts of Disease, Concepts of Causation
- 1.4 Natural History of Disease
- 1.5 Concepts of Disease Control and Concepts of Disease Prevention

Unit 2 Epidemiology

- 2.1 Epidemiology: Definition, Measurements of Mortality, Morbidity and Disability
- 2.2 Descriptive epidemiology, Analytical epidemiology, Experimental epidemiology
- 2.3 Infectious disease epidemiology: Dynamics of Disease Transmission, Disease Prevention and Control
- 2.4 Immunity and Immunising agents
- 2.5 Chronic Non – Communicable disease epidemiology: Risk factors, Prevention and Control

Unit 3 Nutrition in health, disease and disability

- 3.1 Classification of foods. Relationship between health and nutrition.
- 3.2 Carbohydrates, Proteins, Fats, Vitamins, Minerals, Water and Fiber – functions and deficiency.
- 3.3 Nutritional Profiles of Foods – Cereals and Millets, Pulses, Vegetables, Fruits, Animal foods
e.g meat, fish, Fats and oils, Sugar and Jaggery, Condiments and Spices and miscellaneous foods.
E.g. beverages
- 3.4 Nutritional Requirements: Concepts. Energy, Recommended dietary allowances for adult man, woman, children and adolescent. Balanced Diet. Assessment of Nutritional status. Feeding methods for the disabled.
- 3.5 Nutritional Problems in Public Health. Protein energy malnutrition, Xerophthalmia, Nutritional anemia, Iodine Deficiency disorders, endemic fluorosis, Lathyrism.

Unit 4 Diseases and Disability

- 4.1 Congenital Diseases causing disability. Genetic and metabolic disorders
- 4.2 Communicable Diseases causing disability: Polio, Leprosy, Small pox, Measles, Filariasis, Japanese B Encephalitis

4.3 Chronic Non Communicable diseases causing disability : diabetes mellitus, Hypertension, Cancers

4.4 Nutritional deficiency or disorders causing disability

4.5 Occupational diseases causing disability

Unit 5 National efforts in prevention of disability

5.1 Health care and Health care delivery system in India. Overview of the health Administration setup at Central and State level and health care delivery system in urban and rural areas. Preventive obstetrics and pediatrics.

5.2 Prevention and Early detection of disabilities – PWD Act 1995

5.3 National Communicable disease control, Eradication programs- Universal Immunisation Program, Leprosy Eradication Program, Filaria Control Program

5.4 National Non - Communicable disease control, Eradication programs – Blindness Control Program, Cancer Control Program, Mental Health Program

5.5 National Nutritional Programs – Balwadi Nutrition Program, Special Nutrition Program, Midday Meal Program, National Goitre Control Program, Vitamin A Prophylaxis Program, Anemia Control Program.

PAPER II

INTRODUCTION TO DISABILITY

Unit 1 Introduction to Disability

1.1 Definitions/ Concepts- Impairment,

1.2 Disability, Handicap, Exceptional child

1.3 Classification of disabilities – definition/concept & importance, approaches, Advantages, Disadvantages in classification

1.4 Labeling of disabilities- definition, concept, advantages, disadvantages,Prevalence of disabilities – definition, epidemiology, prevalence, incidence, Difference between prevalence & incidence, Factors affecting prevalence

1.5Rights of the disabled

Unit 2 Visual Impairment

2.1 Anatomy & Physiology of eye – common eye diseases

2.2 Definitions – PWD Act, WHO, Educational and Functional for blind & low vision

2.3 Prevalence & causes of Visual Impairment

2.4 Classification of Visual Impairment – Based on Onset – Congenital and Acquired, Based on Degree of Impairment –blind &low vision

2.5 Misconceptions and Facts regarding Visually Impaired

Unit 3 Hearing Impairment

3.1 Anatomy & Physiology of ear – common ear diseases

3.2 Definitions–PWD Act, Psychological, Educational and Functional for hearing impairment &

Hard of hearing

3.3 Prevalence & causes of Hearing Impairment

3.4 Classification– Based on Onset – Congenital and Acquired, Based on Degree of Impairment – deaf & hard of hearing, Based on language acquisition – pre lingual and post lingual deafness

3.5 Misconceptions and Facts regarding Hearing Impaired

Unit 4 Mental Retardation

4.1 Anatomy & Physiology – Nervous System

4.2 Definition – PWD Act, AAMR

4.3 Prevalence & Causes of Mental Retardation

4.4 Classification - Based on IQ – mild, moderate, severe, profound, based on functioning – educable, trainable, custodial care

4.5 Misconceptions & Facts regarding the mentally retarded

Unit 5 Locomotor Disability

5.1 Anatomy of Musculo – Skeletal system and disorders of locomotor system

5.2 Definitions – PWD Act – leprosy cured, locomotor disability, Definitions of physical & health impairments, orthopedic disabilities

5.3 Prevalence & Causes of physical disability

5.4 Classification – Neurological & Musculoskeletal Impairments, Congenital Malformations,
Classification based on body functioning

5.5 Accessibility, Misconceptions & Facts regarding the physically impaired

PAPER III

VISUAL IMPAIRMENT

Unit 1 Historical Perspectives of Visual Impairment

- 1.1 Historical development in India and Abroad
- 1.2 Evolutionary process in attitude change towards blindness
- 1.3 Psychological Implications of Blindness
- 1.4 Sociological Implications of Blindness
- 1.5 Eminent Personalities in the field of Visual Impairment in India and Abroad

Unit 2 Effects of Blindness

- 2.1 Psychological and Behavioural Characteristics – Subjective and Objective
- 2.2 Implications of Blindness on Personality and Cognitive development
- 2.3 Implications of Blindness on Motor development
- 2.4 Implications of Blindness on Language and Social development
- 2.5 Mannerism, Verbalism and Concept development

Unit 3 Plus Curricular Skills

- 3.1 Sensory skills
- 3.2 Orientation and Mobility and its Importance
- 3.3 Concept of Braille – Braille reading and writing
- 3.4 Daily Living Skills and training strategy
- 3.5 Mathematical devices – Abacus and Taylor frame

Unit 4 Low Vision

- 4.1 Screening of Visual disability – Distance, Near, Colour Vision, Field of Vision, Contrast Sensitivity
- 4.2 Assessment of Functional Vision – Procedures, Materials used, Visual efficiency training
- 4.3 Selection of learning medium
- 4.4 Orientation and Mobility for Low Vision
- 4.5 Low vision devices – Optical, Non – Optical and Electro Optical devices

Unit 5 Equipments and Devices – High tech and Low tech

- 5.1 Conventional devices
- 5.2 Electronic devices – Talking calculator, diary, watches, note taking equipment screen reading software and reading machine
- 5.3 Electronic Mobility devices
- 5.4 Technological advances in Braille and Audio material
- 5.5 Indigenous devices and adaptation

**PAPER IV
HEARING IMPAIRMENT**

Unit 1 Historical aspects of Hearing Impairment

- 1.1 Historical development in India, Abroad
- 1.2 Psychological, Behavioural Characteristics
- 1.3 Social, Work adjustment of Hearing Impaired
- 1.4 Implications of Hearing Impairment on Personality development
- 1.5 Effects of Hearing Impairment on Intellectual abilities, Personality, Verbalism

Unit 2 Assessments

- 2.1 Purpose, Type of Assessment
- 2.2 Types of Assessments, Audiometer, Different types of Audiometer
- 2.3 Audiology, Audiogram, Uses of Audiogram
- 2.4 Survey techniques, Methods in Survey
- 2.5 Sustenance & Viability

Unit 3 Communication Methods

- 3.1 Oral method – development of residual hearing, auditory training, speech reading, AVT
- 3.2 MRM – definitions, types, usage
- 3.3 Manual method – Sign Language, Finger Spelling, Sign supported English, Gesture, Body language, Cued Speech
- 3.4 Total Communication – definition, classification, significance, structure
- 3.5 Other methods – Rochester Method

Unit 4 Speech and Language

- 4.1 Definition – Speech & Language development
- 4.2 Process & development of speech and language (age 1- 5 years)
- 4.3 Speech problems, promoting speech & language development

4.4 Speech therapy, Speech correction

4.5 Place and manner of articulation

Unit 5 Hearing aids

5.1 Hearing aids

5.2 Types of hearing aids – Group Amplification Systems

5.3 Functions of hearing aids

5.4 Care & Maintenance of hearing aids

5.5 Cochlear Implantation

PAPER V

MENTAL RETARDATION

Unit 1- Historical Development of Services for Mentally Retarded

- 1.1 Social attitude towards disabled
- 1.2 Tar docide, Stage of display
- 1.3 Stage of religious cure and Creations of Asylum
- 1.4 Birth and rise of Special education
- 1.5 Historical development of services for mentally retarded in India

Unit 2 – Psychological and behavioural characteristics of mentally retarded

- 2.1 Adaptive behavior in the mentally retarded children
- 2.2 Characteristics based on the Severity level
- 2.3 Characteristics based on the Educational Classification
- 2.4 Characteristics based on the Psychological Classification
- 2.5 Physical, cognitive, social and behavioural characteristics in general.

Unit 3 – Psychological Assessment of Mental Retardation

- 3.1 Guidelines to be followed in doing the Assessment
- 3.2 Problems in assessing the mentally retarded
- 3.3 Uses of Psychological test
- 3.4 Commonly used psychological test
- 3.5 Adaptive behavior Scale

Unit 4- Psycho educational Assessment

- 4.1 Steps for ideal psychological assessment
- 4.2 Characteristics of accurate psycho educational assessment
- 4.3 Guideline for accurate assessment
- 4.4 MDPS- Madras Development Programming System
- 4.5 BASIC – MR – Behavioural Assessment Scale for Indian Children

Unit 5- Behaviour Modification

- 5.1 Identification of the problem
- 5.2 Defining Target Behaviour
- 5.3 Behaviour Recording
- 5.4 Functional Analysis
- 5.5 Techniques of Behaviour Modification

PAPER VI

LEARNING, MULTIPLE DISABILITIES, DEAFBLIND, AUTISM, ADHD

Unit 1- Learning Disabilities

- 1.1 Definitions
- 1.2 Causes- genetic and organic, biological, and environmental
- 1.3 Classification- dyslexia, dysgraphia, dyscalculia
- 1.4 Characteristics – cognitive, perceptual, academic, language, motor
- 1.5 Early Intervention – signs of learning disabilities, intervention methods

Unit 2 – Multiple Disabilities

- 2.1 Definitions – National Trust Act, IDEA
- 2.2 Causes – prenatal, prenatal, postnatal
- 2.3 Classifications – Combinations of disabilities
- 2.4 Characteristics – cognitive, perceptual, academic, language, motor
- 2.5 Early Intervention

Unit 3- Deaf Blind

- 3.1 Definitions
- 3.2 Causes – prenatal, prenatal, postnatal
- 3.3 Classifications – based on onset, degree
- 3.4 Characteristics
- 3.5 Early Intervention

Unit 4 – Autism

- 4.1 Definitions – National Trust Act
- 4.2 Causes – psychogenic, genetic causes
- 4.3 Classifications
- 4.4 Characteristics – Triad of Impairment, Social Interaction
- 4.5 Early Intervention – Dietary Intervention, Intervention for parents

Unit 5 – ADHD

- 5.1 Definitions
- 5.2 Causes- inherited, neurobiological, external factors
- 5.3 Classification – ADHD, combined, predominantly inattentive types
- 5.4 Characteristics
- 5.5 Early Intervention – Clinical management of ADHD, Medication and Treatment

PAPER – VII

EARLY INTERVENTION PROGRAMME FOR THE DISABLED

Unit 1 Early Intervention

1.1 Definition /Concept of Early Intervention

1.2 Aims – Early Intervention

1.3 Individuals who need early intervention services – high risk mothers, infants /children

1.4 Types of Early Intervention Services

1.5 Services/Activities – Early Intervention

Unit 2 Early Intervention for Visual Impairment

2.1 Early Identification – Signs of Visual Impairment, Screening in Early Childhood

2.2 Medical Intervention

2.3 Assistive devices – Optical, Non Optical aids

2.4 Educational Intervention – Vision Stimulation

2.5 Parental Training

Unit 3 Early Intervention for Hearing Impairment

3.1 Early Identification – Signs of Deafness, Screening in Early Childhood

3.2 Audiology, Hearing Aids –Types, Uses

3.3 Medical Intervention – Medication, Cochlear Implantation

3.4 Intervention for language development

3.5 Maternal Training – Maternal Reflective Method

Unit 4 Early Intervention for Mental Retardation

4.1 Prenatal diagnosis

4.2 Early Identification

4.3 Medical Intervention

4.4 IQ testing – Formal, Informal Methods

4.5 Mother Training Program

Unit 5 Early Intervention for Physical Disability

5.1 Early Identification – Signs of locomotor disability, reflexes

5.2 Medical Intervention

5.3 Physiotherapy –Importance, Objectives

5.4 Aids,Appliances

5.5 Procuring aids and appliances

PAPER – VIII

MANAGEMENT ISSUES IN EDUCATION AND REHABILITATION

Unit 1 Education Systems for children with disabilities

- 1.1 Aims, Objectives, Educational Implications of disability
- 1.2 Principles of teaching for the disabled– Concreteness, individualization, self activity
- 1.3 Cascade system & Special school programs
- 1.4 Integrated & Inclusive Educations
- 1.5 National Open Schools, Non formal, Informal education

Unit 2 Historical Perspectives

- 2.1 Rehabilitation – definition, concept, need
- 2.2 Historical overview of rehabilitation in India
- 2.3 Historical Perspectives in Asian countries, Abroad
- 2.4 Rehabilitation in social perspective
- 2.5 Components of rehabilitation

Unit 3 Types of Rehabilitation

- 3.1 Institution Based Rehabilitation
- 3.2 Community Based Rehabilitation
- 3.3 Need Based Rehabilitation
- 3.4 Disability related Rehabilitation
- 3.5 Cross disability approach

Unit 4 Vocational Rehabilitation

- 4.1 Pre vocational skill development

4.2 Vocational training for Independent living

4.3 Employment – Self, Private, Government sectors

4.4 Rehabilitation & partnership roles – family, community, local bodies, NGO's

4.5 Legal issues

Unit 5 Project Management

5.1 Administration – Methods, Techniques

5.2 Time Management

5.3 Field Work Management

5.4 Leadership qualities

5.5 Project proposals & Reports