



CERTIFICATE IN REHABILITATION THERAPY

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REHABILITATION COUNCIL OF INDIA

(Statutory Body of the Ministry of Social Justice & Empowerment)

Department of Empowerment of Persons with Disabilities (Divyangjan)

Government of India

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INDEX

	TITLES	Pg. No.
1.0	PREAMBLE	2
2.0	NOMENCLATURE AND OBJECTIVES OF PROGRAM	2
3.0	SCOPE OF THE PROGRAM	3
4.0	GENERAL FRAMEWORK OF THE PROGRAM	3
5.0	DURATION OF THE PROGRAM	3
6.0	ELIGIBILITY	3
7.0	MEDIUM OF INSTRUCTION	3
8.0	METHODOLOGY	4
9.0	STAFF REQUIREMENT	4
	9.1 QUALIFICATIONS OF TEACHING FACULTY / STAFF	4
	9.2 VISITING FACULTY	4
10.0	INTAKE CAPACITY	5
11.00	MINIMUM ATTENDANCE	5
12.0	EXAMINATION SCHEME	5
13.0	REQUIREMENTS OF PHYSICAL INFRASTRUCTURE AND MATERIALS	5
	SPACE	5
	MATERIAL	6
14.0	LIBRARY MATERIAL	6
15.0	CERTIFICATION AS REGISTERED PERSONNEL	6
16.0	COURSEWISE HOURS AND MARKS DISTRIBUTION	7
17.0	THE DETAILS OF VARIOUS COURSES (Theory and Practicals)	9-27
18.0	REFERENCE BOOKS / SUGGESTED READING	28-31

1.0 Preamble

The Constitution of India ensures equality, freedom, justice and dignity of all individuals including persons with disabilities and mandates an inclusive society for all. Accordingly, policy paradigm of Governance has always been proactive in addressing the needs of people in disadvantaged situation and providing them equal opportunities in every sphere of development.

Disability is one of such situation and requires special attention at policy, implementation and monitoring levels. Statistics on disability, therefore, assumes special importance and provides much needed evidence on various facets of disability for a coherent policy and action.

As per the Census 2011, the differently abled population in India is 26.8 million. In percentage terms, this stands at 2.21 %. There has been a marginal increase in the differently-abled population in India, with the figure rising from 21.9 million in 2001 to 26.8 million over the period of 10 years. Disability is part of being human and is integral to the human experience. It results from the interaction between health conditions such as dementia, blindness or spinal cord injury, and a range of environmental and personal factors. An estimated 1.3 billion people – or 16% of the global population – experience a significant disability today. This number is growing because of an increase in non-communicable diseases and people living longer. Persons with disabilities are a diverse group, and factors such as sex, age, gender identity, sexual orientation, religion, race, ethnicity and their economic situation affect their experiences in life and their health needs. Persons with disabilities die earlier, have poorer health, and experience more limitations in everyday functioning than others. It is still difficult to find trained therapists who are willing to work in rural areas especially for the poor, though India produces the largest number of therapists in the world.

In the light of New Education Policy (NEP-2020) and advancement of technology inclusive participation of all people including Divyangjan and elderly population are essential towards sustainable development. In contrast, affordable, appropriate and access to therapeutic services, the condition of Divyangjan and elderly are matter of concern. To overcome the huge need for therapists, the 1 Year Rehabilitation Therapy Training Programme is a step forward for people with disabilities.

In our country, there is a need to train rehabilitation professionals/personnel at various level (Post-Graduate, Graduate and Diploma/Certificate) to meet the demand at national, regional, state and district level and if possible, even at block or Taluka level. With this in mind, Rehabilitation Council of India has taken the initiative to train certificate level personnel such as Rehabilitation Therapy Assistants.

2.0 Nomenclature of the Programme: Certificate in Rehabilitation Therapy i.e. C.R.T.

Objectives

- To promote understanding of situation and needs of people with disabilities in rural as well as urban and slum are and for persons with disabilities marginalized by poverty.
- To deliver the services at the middle level (district level and act as first level training & CRT-2023 / 30-05-2023

referral rehabilitated professional for the grass root/primary rehabilitation cart.

- To develop an understanding to prevent disabilities involvement of the families, community, the PWD and the existing health infrastructure.
- To develop necessary skills for training of volunteers in rehabilitation therapy to render affordable and accessible rural therapeutic services.
- To develop effective therapy intervention at community level, under supervision of Rehabilitation & other professionals.
- To develop a network with all possible professionals in the area/region so as to increase the possibility of referral to the required level whenever necessary.

3.0 Scope of the Programme

- The training is generic and includes relevant aspects of Physiotherapy & Occupational Therapy & Basic Orthotics and Prosthetics.
- The students after successfully completion of the course may likely get job in rural health support service, nursing home, old age home, NGO and able to provide relevant aspects of exercise therapy, posture management, transfer and therapy required for activities of daily living.
- Carry out a basic assessment of persons with a disability in order to identify individual priorities, understanding disabling condition, the needs for rehabilitation and referral.
- Inform and build on the knowledge of persons with disability, their family, community members, other CBR team members and the population in general on disability and rehabilitation issues, with appropriate means and documentation

4.0 General Framework of the Course

5.0 Duration of the programme:

Duration of the programme will be of 1 year with 1200 hours leading to 40 credits (30 hours = 1 credit). The weightage to the programme will be 60% practical and 40% theory. The course work will comprise of 720 hours of practical and 480 hours of theory. The theory hours will also include 60 hours of Employability skills (Soft Skills). The resources for the same are freely downloadable at www.employabilityskills.net. This will enable and empower the trainees with readiness for applying, working as professionals in supporting diverse students across different setups. This 2 credit (60 hours) module is appended in annexure. The module will also have a weightage of 60:40 of practical and theory with formative assessment at internal and the final exam.

6.0 Eligibility:

The minimum entry qualifications is 10th or equivalent pass.

7.0 Medium of Instruction:

The medium of instruction will be English / Hindi / Regional language

8.0 Methodology: The training programme will utilise a participatory approach to learning which will provide students with opportunities to develop the knowledge, attitudes, and skills necessary to carry out their role as Rehabilitation Therapy Assistants on completion of the course. Special attention is placed on the development of the positive attitudes towards Persons with Disabilities (PwDs) and their eventual performance in their own work environment. Among the teaching-learning strategies (methods) which will be utilized are:

- Field and Workshop experience
- Practical
- Case studies
- Demonstrations
- Participative class session (lecture)
- Self study
- Questions and answers
- Role play and Simulations
- Trainee presentations
- Projects and group work

Among the above-mentioned methods, some are more suitable for teaching knowledge, others are more suitable for developing or changing attitudes and some are more appropriate forteaching skills.

The emphasis both throughout the training and during the assessment of the students' learning outcomes is on the basic principle of problem solving. The integrative studies module has been added to the syllabus to provide a specific forum where problem solving can be applied. As a strategy, problem solving presents complex issues to students and prepares them to apply their knowledge and experience to situations, which will arise in their work. The utilisation of this approach facilitates learning and enhances the skills of the student.

9.0 Staff Requirement

9.1 Human Resource Requirement

Sl. No.	Faculty	Number	Duration	Profile
1.	Assistant Professor Lecturer	01	Full Time	Rehabilitation Professional / Rehabilitation Therapist with Bachelor of Prosthetics & Orthotics or Bachelor of Rehabilitation Therapy Experience- 3 years Post Degree
2	Tutors	01	Full Time	Rehabilitation Professional / Rehabilitation Therapist with Bachelor of Prosthetics & Orthotics or Bachelor of Rehabilitation Therapy

9.2 Guest Faculty

1.	Faculties	Part Time	Medical Doctor, CBR specialists, Vocational Counsellor,
			Audiologist, Ophthalmologist, Psychiatrist

- a) Teacher Student Ratio: 1:10
- b) Professional Qualifications of Faculty in Core Areas: Rehabilitation Therapist
- 10.0 Intake capacity: Maximum 30 (student teacher ratio=1:10)

11.0 Minimum attendance:

80% of the total course duration

12.0 Examination Scheme: The programme shall follow the NBER Scheme of Examination and norms from time to time. Annual Program with Continuous Assessment and Term End examination will be followed.

13.0 Infrastructure requirements for starting the Course

Learning facilities

• There are several large classrooms and a library with a comprehensive collection of books and journals in physiotherapy, occupational therapy, Medical, rehabilitation, CBR, disability and allied issues.

Audio - Visual resources

• Whiteboard / flip chart, overhead projector, charts, models, skeleton, Computers, LCD projector and Video cassettes, photos, slides, CDs etc are available

Physical Space required (Classrooms/labs/therapy rooms/seminar halls etc as and when applicable)

The Institute should have appropriate Therapy Set up including Physiotherapy, Occupational Therapy Unit

Sl. No.	Name		Minimum size in sq. Ft.
1.	Classrooms with Information and Communication Technology (ICT)	1	576
2.	Laboratory room	1	300
3.	Multipurpose hall	1	2000
4.	Therapy rooms	1	500
5.	Principal/coordinator room	1	200
6.	Staff room	1	300

Office Furniture and equipment—Standard Classroom & Office furniture Equipment required (As applicable for the programme)

SL.NO.	Equipment	Quantit y	S.N.	Equipment	Quantity
1.	Assessment bed	2	12.	Theraband	1 set
2.	Physio ball	2	13	Weight cuffs	2
3.	Goniometer, 180°	2	14.	Dumb bell	2
4.	Goniometer, 360°	2	15.	Crepe bandage	2
5.	Measuring tape (Metal)	2	16	Toilet, shower chair, diaper	1 each
6.	P & O devices (samples-upper, lower, spine)	1 each			
7.	Types of Wheelchair (3, 4 wheelchair, pediatric wheelchair)				
8.	Types of walking aids (Cane, elbow, axillary, walking frame)	1 each			
9.	Types of positional devices (sitting, standing, prone board, corner seat)	1 each			
10.	Types of ADL devices (feeding, dressing, bathing, toileting)	1 each			
11	Reading Glasses (1.5, 2, 2.5, 3)				

14.0 Library Material: A library equipped with basic books on various disabilities, basic sciences, social, psychological and vocational rehabilitation should be a pre-requisite. It should have minimum 200 books which are related to the program.

15.0 Registration as Personnel/Professional and Category of Registration:

It is mandatory for every rehabilitation professional / personnel to obtain a "Registered Personnel/ Professional Certificate" from the Rehabilitation Council of India to work in the field of disability and special education in India. A Student who has attended the training and completed the requirements for all modules successfully will be qualified as a **Multi-Purpose Rehabilitation Therapist /Technician - Personnel** and be eligible to work in the field of Rehabilitation in India as a **Rehabilitation Therapist**. As continuous professional growth is necessary for the renewal of the certificate, the rehabilitation professional / personnel should undergo in-service programme periodically to update their professional knowledge. Each registered professional/personnel will be

required to get himself /herself renew his registration periodically. The periodicity will be decided by the council from time to time. The activities for enrichment training programmes in the form of Continuous Rehabilitation Education (CRE) is decided by the RCI.

16.0 Course wise hours and Marks Semester /Annual programme structure with breakup of hours and credits (Theory / Practical):

S.No	Name of Subject	Theory hours	Practical Hours /		Theory Credit	Practical Credit	Total Credit	Internal marks	External Marks	Total Marks
			Demonstration							
1	Elementary	60	30	90	2	1	03	20	30	50
	study on									
	Human Body									
	Structure									
2	Personal and	60	30	90	2	1	03	20	30	50
	Professional									
	Studies									
	and ICT									
3	Introduction	60		60	2		02	20	30	50
	to Disability,									
	CBR									
4	Clinical	30		30	1		01	20	30	50
	Studies									
	(Disabling									
	conditions)									
5	Rehabilitation	90		90	3		03	20	30	50
	Intervention I									
6	Rural		210	210		7	07	50		50
	Placements									
7	Employability	60			2		02			
	Skills									
	PRACTICAL									
8	Clinical		210	210		7	07	40	60	100
	Studies									
	(Disabling									
	conditions)									
9	Rehabilitation		360	360		12	12	40	60	100
	Intervention I									
	Total	360	840	1200	12	28	40	230	270	500

a) Examination pattern: Internal/External/Practical/Viva i) Dissertation (if any)

There are 2 elements to the assessment of students' performance within the training programme. These are formal and informal.

Informal Assessment

Informal assessment is designed to give the trainers and students feedback on their level of understanding and skill. This is carried out continuously throughout the year and takes the form of self and peer assessments, class assignment, tests and project. This enables the trainers and students to focus the students learning on their areas for improvement/development.

Formal Assessment

Formal assessment of trainee's performance is aimed at identifying whether they have achieved an acceptable level of performance in all the areas outlined in the expected tasks of a Rehabilitation Therapy Assistant

Each paper is evaluated according to its content, its specific objectives and the amount of credits allocated. The methods used include the following:

- Written and Oral Exams
- Practical exams
- Case Presentations
- Practical Case Studies
- Poster presentations
- Projects/Portfolios
- Reflective Diaries
- Recording of competency achievement in specific tasks

NOTE: Rural placements modules are evaluated jointly by a training institute Tutor and the field Supervisor in the rural organization.

Wherever it is appropriate, evaluations are internally validated by a system of cross-marking by separate trainers to ensure consistency and objectivity of marking grades.

Training institute aims to provide equal opportunities to all students. Where a trainee's disability limits their ability to complete a set evaluation for a particular module, a different evaluation method which will fulfil the requirements of that module will be selected. In this case alternative evaluation methods will be validated by an internal committee comprised of experienced trainers of the training institute.

j. Criteria of Passing

A candidate must obtain 40% pass mark in each theory paper and 50% in each practical paper separately in internal & external assessments.

Distribution of Internal/External Marks for Theory & Practical

Theory and Practical will have 40% internal and 60% external assessment marks In case a candidate is failed supplementary examination will be conducted as per NBE norms of RCI

Compulsory withdrawal from the programme

Training institute reserves the right to withdraw a trainee from the programme compulsorily for the following reasons:

- a) Disciplinary grounds e.g. unacceptable behaviour or professional ethics etc.
- b) Unacceptable academic or clinical performance.

a) Board of Examiners/ Examination Scheme : Approved Faculties as per the syllabus

An evaluation team comprising internal and external examiners evaluate the programme during and at the completion of each batch. The internal evaluators comprise a core group of teaching co-ordinators from Training institute as well as all the students.

The external evaluators comprise of EXAMINERS from the Rehabilitation Council of India, registered Professionals

b) Award of Degree : Certificate in Rehabilitation Therapy

17.0 Programme Content

a) Paper wise Objectives/ Learning outcomes
Core Modules

PAPER 1

ELEMENTARY STUDY ON HUMAN BODY STRUCTURE

90 hours Credits - 3

Overall Description

In this module the trainee learns about the basic structure and function of the main body systems and the stages of normal child development. This module provides a foundation of knowledge that will be applied throughout the rest of the training programme.

Overall Objectives

For the students to develop an understanding of the basic anatomy of the human body and the normal stages of development of a human child from birth to 5 years.

At the end of the unit the trainee will be able to:

- 1. Identify the main body parts presented in this unit.
- 2. Describe the anatomical position.
- 3. Explain why the anatomical position is important.
- 4. Apply medical vocabulary for body parts and locations.
- 5. Apply medical vocabulary for body positions and direction of body movements.

Contents

	Units	Hours
1.	Body Parts and Medical Vocabulary	90 including demonstration of 30
2.	Physiology (General Body Systems)	hours
3.	Skeletal System (Osteology)	
4.	Joints (Arthrology)	
5.	Muscular System (Myology)	
6.	Nervous System (Neurology)	
7.	Child Development	
8.	Biomechanics	
То	tal	90

In this unit the trainee learns the

Basic anatomy and physiology of the circulatory, respiratory, urinary and digestive body systems basic mechanisms structure of a joint, basic physiological and anatomical aspects of the nervous system. They will also be introduced to the skin, musculo – skeletal and nervous systems. Normal stages of development of a human child from birth to 5 years

PAPER 2

PERSONAL, PROFESSIONAL STUDIES AND INTRODUCTION TO ICT

90 hours Credits – 3

Overall Description

This module focuses on both the trainee's inter - personal skills, developing professionals skills and introduction to Information and Communication Technology (ICT). This is complementary to technical skills and is essential to work in their capacity as a Rehabilitation Therapy Assistant.

Overall Objectives

In this Module students develop self- knowledge and skills in the personal, professional areas and use of various Information and Communication Technology that are complimentary to their work as Rehabilitation Therapy Assistant.

Uı	nits	Hours
1.	Communication Skills & Active Listening (Counselling)	90
2.	Personal and Professional Development	
3.	Organisation and Documentation	
4.	Training Skills	
5.	Management of Therapy Unit	
6.	Introduction to Information & Communication Technology	
Total	•	90

Contents

Communication Skills and Active Listening (Counselling)

Description

In this unit the trainee learns about the communication process and reflects on their own communication skills. Also they understand and use the active listening component of counselling. It will reinforce the importance of their communication and listening skills in their role as Therapy Assistant. The course will help the trainee to understand when and how to use basic active listening techniques. The main focus will be on enabling the students to acquire practical skills in active listening.

Objectives

At the end of the unit the trainee will be able to:

- 1. Describe their personal learning style.
- 2. Reflect on their strengths and needs with regard to their professional role.
- 3. Use reflective practise as a method of self-development.
- 4. Describe how they will continue their professional development on completion of the training programme.
- 5. Carry out day-to day management of a Therapy Unit
- 6. Teach a specific skill to a person with a disability or their family member.

7. Understand basic AI Tools, Software used for Communication with various types of PwDs

State ethical considerations which they need to consider as Rehabilitation Therapy Assistants

Contents

- What is Communication?
- Importance of good communication.
- Verbal and non verbal communication.
- Barriers to communication.
- Aspects of effective communication.
- Communication in organisations.
- Definition of counselling and active listening.
- Types of counselling and active listening.
- The need for counselling or active listening
- Process and practice active listening

PERSONAL AND PROFESSIONAL DEVELOPMENT

- Awareness of Self and how others see us
- Awareness of Learning Style
- Awareness of Professional Role
- Strengths and weaknesses
- Reflective and problem solving practise
- Continuous Professional Development
- Ethics and the code of conduct

ORGANISATION AND DOCUMENTATION

- Designing assessment forms
- Recording assessment and reassessment
- Recording problem lists
- Recording long and short term goal setting
- Recording intervention
- Evaluating treatment and keeping statistics
- Importance of safety for PWD and self
- Time Management and use of a diary
- Fixing and keeping appointments
- Maintenance of premises and equipment
- Report writing
- Overall skills required in the day-to-day management of a Therapy Unit

TRAINING SKILLS

- Participatory training methods and skills
- Teaching a specific skill to an individual
- How to plan
- Presentation skills
- Preparing visual aids and training tools

MANAGEMENT OF THERAPY UNIT

- Introduction to Basic Management and management skills
- Principles of costing and general costs of production
- Material acquisition, handling and storage
- Stores management including Storage Stock control, Performa Invoices, Receipts
- Purchasing and transport
- End price
- The work force and its management
- Labour and Calculation of average man-hour
- Productive and non-productive hours
- General costs related to manpower
- Financial statements
- Statements
- Budgets
- Production cost calculation, end price and profit
- Planning, Preparation and Control of Therapy Unit

Introduction to Information and Communication Technology (ICT) 6 hours

• Hardware:

C.P.U, monitor, keyboard, mouse, Laptop , tablet, touch screen, Mobile phones, Smartboard,

Printer, U.P.S, USB disk, Wifi, Projector, computer Scanner, photocopy machine, calculator

• Software:

OS, App, AI tools, browser, anti-virus, desktop publishing software: open office (word, excel, PowerPoint), notepad.

File format: text formats txt, Pdf, docx, xlx, pptx, .stl, .obj

Assistive software and technology for PwD.

• Medical Devices:

Digital Glucose meter, Digital oxygen meter, digital blood pressure meter, digital thermometer, Digital weight machine, etc.

Internet:

Search engine, open source resources, online resources,

Email, Digital wallet, SMS, OTPs, App, No code programming Eg: Drag and drop programming

Picture editing s/w: photos/pictures: jpg, .png

Movie editing s/w: video: .mpg, .avi

Paper 3

INTRODUCTION TO DISABILITY, DEVELOPMENT AND COMMUNITY BASED REHABILITATION

60 hours Credits - 2

Overall Description

In this module the students learn about the importance of primary health care for the community they will be working with. They will consider the socio-economic situation of people with disabilities in the community and the link between disability and development. The emphasis in this module is on the deepening of the trainee's understanding of issues around disability and the development of a positive attitude to people with disabilities in society. Through extensive field visits to the local CBR projects students gain practical experience and insight into the needs of the people they aim to help. By accompanying experienced CBR workers into the field they gain an understanding of CBR and their role within the CBR framework.

Objectives

At the end of the unit the therapy assistant will be able to:

- 1. Reflect and analyse on our attitude/values and attitudes towards persons with disabilities, their families and the community (Socio-cultural and religious).
- 2. Describe how it felt to have a simulated disability.
- 3. Describe the prevalence of disability in the urban and rural parts of India and the trends in other low income countries. Describe the impact of this on their role as Rehabilitation Therapy Assistants.
- 4. Describe the need for creating equal opportunities and experiences for PWD to be an integral part of society with a better quality of life.
- 5. Discuss the social causes of disability in low income countries and the link between poverty and disability.
- 6. Explain the rights of persons with disabilities and means of accessing the rights.
- 7. Explain some of the legislation and the resulting provisions for PWDs within the political context in India and trends in other low income countries.
- 8. Tell the different approaches to rehabilitation.
- 9. Address disability as a development issue as relevant to their local context.

Explain the importance of promoting a barrier free environment for people with disabilities and be able to carry out the same.

Contents

Units	Hours
1. Poverty and disability.	60
2. Disability and development	
3. Primary health care	
4. CBR	
Total	60

Contents

DISABILITY AND DEVELOPMENT

- Definition of disability, its causes, prevention and the disability process
- Attitudes of person with disability, family and community
- Exercise of portrait of disabled person and experiencing disability.
- A day in disabled persons life
- Needs of people in society
- Link between education, poverty and disability
- Status of PWDs in India and in other low income countries.
- Background to social, political and economic issues in India and other low income countries. The affect on the poor who live in rural and urban areas.
- Disability and women
- Different approaches towards addressing the need of PWDs
- The different models of working with PWD
- Introduction to disability issues, different acts, Government schemes and initiatives, legislation, and methods of accessing them.
- Environmental Barriers and promoting barrier free environment
- Simple methods to create a Barrier Free Environment in house, school, roads, toilets, community levels.

PRIMARY HEALTH CARE

- Introduction to primary health care.
- Common childhood illnesses.
- Causes and prevention of disease and infection. Health promotion to include vaccination programmes, need for good sanitation and clean drinking water.
- Malnutrition.
- Basic First Aid.
- Referral procedures.
- Women's health.
- T.B
- HIV/AIDS.
- Sanitation and hygiene
- The referral process including:
- Visits to Primary Health Centres
- Visits to other Referral Centres.

COMMUNITY BASED REHABILITATION (CBR)

- What is CBR?
- How is CBR different to other approaches to rehabilitation? (Institutional based Rehabilitation, Community Based Rehabilitation, Camps, Outreach services, mobile services)
- Strength and limitations of CBR.
- Principles involved in the implementation of a CBR programme Roles of different stake holders, optimum use of resources and bridging the gap between the PWDs in the community and the resources.

- Components of CBR Health (Prevention, promotion, cure, Rehabilitation), Education (Preprimary, Primary, Secondary, higher and special education), economic (Job oriented training, IGP, advocacy) and Social (Environmental, societal, religious barriers, sports and recreational barriers).
- Roles and responsibilities of the implementing agency.
- Roles of the trainee in contributing to an effective CBR programme.
- Holistic (Medical & Social) Rehabilitation Plan and Review.
- Role of students in planning, implementing, monitoring and evaluating of the CBR programme.
- Need for basic Documentation in a CBR programme.

Paper 4

CLINICAL STUDIES (DISABLING CONDITIONS)

Theory—30 hours Practical: 210 hours CREDITS—08

Description

In this module the students learn about the specific disabling conditions introduced in this programme. This includes their cause, resulting functional problems, the rehabilitation plan including different therapeutic and prosthetic /orthotic intervention, and appropriate referrals to other agencies. Several of the units are divided into 2 or 3 parts. In the first part the students learn the common knowledge and skills required by all 3 disciplines attending the 1 year training programme (Prosthetic Technicians, Orthotic Technicians and Rehabilitation Therapy Assistant). By conducting the training in this way the students are able to benefit from having a basic understanding of each discipline's perspective on a specific condition. This knowledge of each other's roles should help them to relate and refer to each other when they complete the training programme and begin to work in their field. Part 2 and 3 focuses on knowledge and skills required specifically by each discipline.

Objective

For the students to be introduced to the common conditions of PWDs that they will be providing intervention for in their community.

- 1. Describe the effects of Polio.
- 2. Carry out a basic assessment of a person with Post Polio Residual Paralysis (PPRP).
- 3. Describe basic management of person with Post Polio Residual Paralysis (PPRP).
- 4. Refer a person with PPRP to the appropriate resource.

Contents

Į	Inits	Hours
1.	Poliomyelitis	Theory—30
2.	Cerebral Palsy	
3.	Muscular Dystrophy	Practical210
4.	Amputation	
5.	Congenital deformities	
6.	Spina Bifida	
7.	Stroke	
8.	Spinal Cord Injuries	
9.	Arthritis	
10.	Fractures	
11.	Intellectual disability	
12.	Mental Illness	
13.	Blindness and Low Vision	
14.	Communication problems	
15.	Burns	

17. N 18. C	Peripheral Nerve Injuries Multiple Disability Older People Other Disabling Conditions	
Tot	al Number of Hours	240

POLIOMYELITIS -- Definition, causes etc

Carry out detailed assessment and rehabilitation intervention for a person with PPRP

CEREBRAL PALSY

- 1. Identify and describe Cerebral Palsy
- 2. Describe the problems experienced by children who are born with this condition.
- 3. Carry out a basic assessment and describe management of children with Cerebral Palsy.
- 4. Describe the importance of activity for a child with a Cerebral Palsy.
- 5. Give advice to parents with regard to functional activity, communication and behavioral problems with their child.
- 6. Refer a child with Cerebral Palsy to the appropriate resource
- 7. Describe the secondary problems of adults with Cerebral palsy and advice/training they would require.

Practical

- 1. Carry out detailed assessment and therapy intervention for a child with Cerebral Palsy
- 2. Give advice and training to parents of children with cerebral palsy on functional activity.

MUSCULAR DYSTROPHY

- 1. Identify and describe people (children) with Duchenne's muscular dystrophy.
- 2. Describe the main problems of children with Duchenne's muscular dystrophy.
- 3. Carry out a basic assessment and describe the management of a child with Duchenne's muscular dystrophy.
- 4. Explain how they can support the family and carer's of people with Duchenne's muscular dystrophy.
- 5. Refer a person with Duchenne's Muscular Dystrophy to the appropriate resource

Practical

- 1. Carry out a detailed assessment a child with Duchenne's muscular dystrophy.
- 2. Describe how therapy and orthotic intervention can help.

AMPUTATION

- 1. Amputation causes and complications of amputations.
- 2. Different levels of amputations in the upper and lower limb.
- 3. Basic assessment and describe the management of amputations
- 4. Refer a person with an amputation to the appropriate resource
- 5. Positioning to decrease joint stiffness in above and below knee amputees.
- 6. Appropriate therapy and prosthetic treatment for different stages of recovery for an amputee.
- 7. Appropriate bandaging techniques for amputees.

- 8. Appropriate massage technique to reduce oedema and manage scars.
- 9. Demonstrate the process of gait training for amputees with appliances
- 10. Identify gait problems and describe solutions to decrease these.

CONGENITAL DEFORMITIES

This unit focuses on the following congenital deformities:

Cleft lip and cleft palate, missing limbs, back knee (Genu recurvatum), knock knee, (Genu valgum) bow leg (Genu varum) and club feet (CTEV), flat feet, Arthrogryphosis. Intervention for children with Genu recurvatum, knock knee, bow leg, club feet

PRACTICAL

1. Carry out detailed therapy assessment and describe the management for children with missing limbs.

SPINA BIFIDA

- 1. What is Spina Bifida and Hydrocephalus
- 2. Problems encountered by children who are born with this condition.
- 3. Basic assessment and describe the basic management of the problems encountered by a child with Spina bifida
- 4. Refer a person with Spina Bifida to the appropriate resource.

PRACTICAL

- 1. Carry out a detailed assessment of child with Spina bifida
- 2. therapy and orthotic intervention for a child with Spina Bifida

STROKE

- 1. How to Identify when someone has had a stroke and its causes
- 2. Physical problems faced by a person who has had a stroke.
- 3. How stroke can affect vision, speech and swallowing and cognitive abilities.
- 4. Refer a person who has had a stroke to the appropriate resource.

PRACTICAL

- 1. Carry out a detailed assessment of a person who has had a stroke, including functional assessment.
- 2. Carry out appropriate therapy and orthotic intervention for a person who has had a stroke.

SPINAL CORD INJURY

- 1. What is spinal cord injury and the different causes of this condition.
- 2. The problems experienced by a person with a spinal cord injury.
- 3. Basic assessment and describe the basic management of the problems encountered by a person with a SCI
- 4. Refer a person with SCI to the appropriate resource.

Practical

- 1. Carry out a detailed therapy assessment of a person with a spinal cord injury.
- 2. Describe therapy and orthotic intervention for a person with a SCI

ARTHRITIS

- 1. Describe an arthritic joint
- 2. Differentiate between osteoarthritis and rheumatoid arthritis and other joint problems.
- 3. Describe the functional problems encountered by a person with arthritis
- 4. Basic assessment and describe how Therapy and Orthotic intervention can help a person with arthritis.
- 5. Refer a person with arthritis to the appropriate resource

FRACTURES

- 1. What is fracture, its cause and compare different types of fractures.
- 2. Fracture healing.
- 3. Basic assessment and describe the management of different types of fractures
- 4. Refer a person with fracture to the appropriate resource

INTELLECTUAL DISABILITY (MENTAL RETARDATION)

- 1. Behaviors problems with people with Intellectual disability.
- 2. Differentiate between Intellectual disability and Cerebral Palsy.
- 3. Refer a person with Intellectual disability and their family to the appropriate resources. (Basic assessment & Intervention)

MENTAL ILLNESS

- 1. What is mental illness.
- 2. its causes are and differentiate between mental illness and intellectual disability/physical conditions (e.g. cerebral palsy, epilepsy).
- 3. Identify when someone has a mental illness.
- 4. To describe types of mental illness that can occur as a direct result of a physical disability (e.g. depression).
- 5. Understand how and why someone caring for a child/adult with physical disability is at risk of developing a mental illness.
- 6. Impact a mental illness can have on a person's physical rehabilitation programme and what you can do about it as a professional.

BLINDNESS AND LOW VISION

- 1. What are the common causes of blindness and low vision
- 2. Different levels and types of blindness and low vision
- 3. How blindness and low vision can be prevented
- 4. How to help a person with blindness and low vision to use a mobility aid
- 5. Refer a person with blindness and low vision to the appropriate resource

PRACTICAL

1. Carry out a basic assessment and intervention plan for a child or adult with a blindness and low vision (who also has a physical disability).

COMMUNICATION PROBLEMS

(SPEECH AND/OR HEARING IMPAIRMENT)

- 1. How to Identify when a person has a communication problem.
- 2. Basic principles of communicating with a person with communication problems.
- 3. Refer a person with communication problems to the appropriate resource.

PRACTICAL

- 4. Carry out a basic assessment and intervention plan for a child/adult with communication problems (who also has a physical disability)
- 5. Encourage total communication skills that are age appropriate for a child or adult with communication problems.

BURNS

- 1. What the different types of burns and how they are managed
- 2. How therapy and Orthotics intervention can help a person with a burn injury
- 3. Refer a person with a burn injury on to the appropriate resource
- 4. Carry out basic therapy assessment and describe therapy intervention for a person with a burn injury.

PERIPHERAL NERVE INJURY AND ERB'S PALSY

- 1. Peripheral nerve damage and its effects.
- 2. Complications that can occur after a peripheral nerve injury.
- 3. How Orthotic intervention & therapy can help a person with a peripheral nerve injury.
- 4. Refer a person with peripheral nerve injury on to the appropriate resource.

MULTIPLE DISABILITY

- 1. Identify and describe common problems for a child with multiple disabilities and their family.
- 2. Carry out a basic assessment and describe management of children with multiple disabilities.
- 3. Refer a child with multiple disabilities to the appropriate resource.

PRACTICAL

4. Carry out an assessment and therapy intervention for a child with multiple disabilities, with focus on training the family.

GERIATERIC POPULATION

- 1. What are the common problems experienced by older people and why/how management should be modified accordingly.
- 2. Basic assessment & appropriate intervention for an older person.
- 3. Refer an older person with a specific problem to the appropriate resource.

OTHER DISABLING CONDITIONS

1. Signs and Symptoms of:

- a. osteomyelitis
- b. osteoporosis
- c. T.B. spine
- d. Rickets
- e. Congénital dislocation of hip.
- f. Hansen's Disease
- g. Diabetes
- 2. Importance of medical & rehabilitation advice with these conditions.
- 3. How Prosthetic and orthotic intervention & can help a person with these conditions.
- 4. Refer a person with one of the above conditions to the appropriate resource.

Paper 5

REHABILITATION INTERVENTION.

THEORY—90 HOURS

PRACTICAL -- 360 hours

TOTAL HOUR---450 Credits 15

Description

In the first part of this module the trainee's learning will be directed at the application of basic procedures/techniques/strategies used in therapy. The course seeks to develop relevant skills and positive attitudes in the application of the different procedures / techniques / strategies.

In the second part of this module the Trainee also learns about WHO listed Priority assistive devices and introduction to Orthotics and Prosthetic for identifying the need for referral.

Objectives

To be able to apply the stated procedures, techniques and strategies for the Therapy intervention of persons with disability in a safe and competent manner.

At the end of the unit the students will be able to:

- 1. Describe the rehabilitation process
- 2. Describe the difference between impairment, activity limitation and participation restriction (International Classification of Functioning)
- 3. Describe the role of the Rehabilitation Therapy Assistant and explain how the therapy assistant can help people with disabilities as part of the rehabilitation process.
- 4. Describe the role of the Orthotic Technician and explain how orthosis can help people with disabilities as part of the rehabilitation process.
- 5. Describe the role of the Prosthetic Technician and explain how the prostheses can help people with disabilities as part of the rehabilitation process.
- 6. Describe the roles of members of the rehabilitation team.
- 7. Describe the difference between remedial and adaptive approaches in therapy
- 8. Define some of the simple therapy techniques that will be used on the course
- 9. Use a problem solving approach to their rehabilitation management
- 10. Describe and explain benefit of using an orthopaedic appliance and its effect on the other treatment programmes of rehabilitation.
- 11. Describe and explain the importance of early identification of the disability and the intervention process.

Units	Hours
Introduction to Rehabilitation	
Needs and Priorities of PWDs	
Range of Motion Exercise	
Postural management	
Stretching	
Strengthening	
Pain Relief	
Massage	
Management of Abnormal Tone	
Breathing activities (Respiratory treatments)	
Balance & Coordination Exercise	
Bandaging	
Hand function	
Transfers	
Introduction to essential Priority Assistive Devices	
Developmental Aids	
Walking Aids	
Wheelchairs	
Gait analysis and training-	
Activities of daily living, Aids for daily living	
Therapeutic Activities	
Home adaptations	
Functional activity and Play	
Prosthetics and Orthotics	

1. INTRODUCTION TO REHABILITATION

2. NEEDS AND PRIORITES OF PEOPLE WITH DISABILITIES

- 3. RANGE OF MOTION EXERCISE --- Indications for the use of passive range of motion, active assisted range of motion and active range of motion, Demonstrate the active and passive range of motion and active assisted range of motion techniques, How to teach a person with a disability to show active range of motion exercises, through functional activity.
- 4. POSTURAL MANAGEMENT --- Description of postural management and why it is important. Different ways to maintain good posture and prevent/manage contractures and deformities. Positioning, splinting, developmental aids, strengthening, active and passive stretching are appropriate and why.
- 5. STRETCHING ---- Indications for the use of passive and active stretching, contraindications of passive and active stretching.
- 6. STRENGTHENING --- Identification of a person who will benefit from strengthening exercises, How to progress strengthening exercises, Demonstration of functional exercises/activities to strengthen upper and lower limb muscle groups, using different types of muscle contractions. How to Design and teach a home strengthening programme for a service user, using functional exercises and activities.
- 7. PAIN RELIEF --- How to help the individual with pain relief, Understanding the limits to their techniques. Safely application heat and cold techniques. Refer the service user to a doctor when appropriate.
- 8. MASSAGE -- Description of massage (for oedema and scars only), Contraindication of massage, general guidelines on the application of massage, appropriate massage techniques for control of oedema and scar management.
- 9. **MANAGEMENT OF ABNORMAL TONE** --- Understanding of normal & affected movement in a child/adult with neurological damage. Intervention plan to improve the function of a child/adult with abnormal tone.
- 10. BREATHING ACTIVITIES -- Description of conditions can cause breathing problems and why. How teach different activities to help a person with a breathing problem.
- 11. **BALANCE & COORDINATION EXERCISE** --- Balance and coordination exercises, How to teach balance and coordination exercise. Demonstration of different balance & coordination exercises.
- 12. BANDAGING --- Purpose and indications for bandaging, general rules of bandaging. Demonstration of appropriate bandaging techniques for amputees, muscle strain and sprain.
- 13. **FUNCTIONAL ACTIVITY AND PLAY** --- Demonstrate how functional activity and play has a central role in therapy intervention. With the PWD, design and carry out an intervention plan using functional activity and/or play to achieve their goals.

- 14. **THERAPEUTIC ACTIVITY** -- Appropriate, therapeutic, goal directed and purposeful. Analyse of activity and identification of the qualities of the therapeutic activity.
- 15. HAND FUNCTION --- Different hand/wrist positions to reduce or improve hand function. Basic Assessment of hand functions and appropriate intervention.
- 16. INTRODUCTION TO PRIORITY ASSISTIVE DEVICES --- Definition, types of assistive devices, Indications of assistive devices, 4 steps of service provision for PWD (selection, fit, train & follow up) Identify the user needs and carry out appropriate referrals based on user need.
- 17. ACTIVITIES OF DAILY LIVING & AIDS FOR DAILY LIVING --- Basic activities of daily living: eating and drinking, dressing, bathing and toileting, self-care, basic assessment & make an intervention plan with the PWD, aimed at increasing independence in basic activities of daily living. Variety of interventions that will increase independence in activities of daily living. Design & fabricate aids for daily living.
- 18. **HOME ADAPTATIONS** --- Assessment of barriers in the home. Identification of adaptation(s) which will reduce/remove the barriers within the home.
- 19. **DEVELOPMENTAL AIDS** ---- Different developmental aids indications and importance of follow-up, Types of process involved/ materials and tools required for making development aids.
- 20. TRANSFERS --- General rules for all transfers. Methods of assisting a PWD with appropriate safe transfers using good back care techniques: bed mobility, lying to sitting, standing up, moving between chair/bed, getting on and off the floor
- 21. **WALKING AIDS** --- Identification of the walking aid that will meet the needs of an individual service user. Appropriate measure and fit of the walking aid. Guidance to the user how to use walking aid.
- 22. WHEELCHAIRS--- Identification of wheelchair requirement. How to use wheelchair, Training to user
- 23. GAIT ANALYSIS AND TRAINING -- Description of normal gait and the main muscles groups used Demonstration of activities needed for walking, identification of normal and abnormal gait pattern, Problems associated with abnormal gait.
- 24. **PROSTHETICS AND ORTHOTICS** ----- Various types of prostheses, Orthoses and assistive devices. How to do basic repair and referrals. Types of material used.
- 25. **Integration/Clinical Practise--** Assess the need for, provide therapy intervention for PWDs who are referred to training institute by direct placement in therapy unit or CBR Project area (Under supervision). Communication with the PWD, their family and any other professionals involved. Designing of Rehab set up.

Paper 6

RURAL PLACEMENT

210 hours Credits --- 07

Description

The experience of working with a rural organisation provides opportunity for students to experience rehabilitation outside the training institute campus and field area. The organisations are predominantly based in rural areas which mean that students have opportunity to experience working in a different environment. They are able to apply basic concepts and principles to practical situations in the community and develop skills in the fabrication of aids for daily leaving using locally available resources.

Students are exposed to basic principles of management within this context as some assistants may be required to organise the day-to-day management of small rural rehabilitation units.

By the end of this module the trainee will be able to:

- 1. Observe and take part in the awareness programme conducted by the organization in the community. (if possible) This could include:
 - a. Early identification and Intervention of Disabilities
 - b. Identify and refer for repair or needs of priority assistive devices
- 2. Students will be involved in the documentation procedure followed by Organization if needed.
- 3. Behave in a professional manner throughout the visit.
- 4. Communicate effectively with PWDs, family, and members of partner organisation. .(in case of language problem with support)
- 5. Take part in the Therapy intervention done and followed by the organization in the community level.

Reference Books / Suggested Reading

- Mobility India, 2010: Rehabilitation Therapy Hand book Vol 1. Vol II & Vol III
- David Werner :Disabled Village Children-A Guide For Community Health Workers, Rehabilitation Workers And Families: VSO
- David Werner, 1994: Where There Is No Doctor A Health Guide Book-VHAI, New Delhi
- Action on Disability and Development (ADD) India, Building Abilities-A Handbook To Work With People With Disability ADD India
- The Spastics Society of Tamilnadu, 2000:Towards Inclusive Communities: Spastics Society of Tamil Nadu, India
- Manual For CBR Workers About Orthosis /Crutches/ Speech & Hearing/ Disability)-Handouts
- Barbara Decleire, Addis Anbaba,2002: Management Of Cerebral Palsy In Developing Countries-Handouts
- Anne Hope and Sally Timmel, 1995: Training For Transformation-A Handbook For Community Workers-Vol-I to Vol III Mambo Press
- WHO, Swedish Organisation of Disabled Persons International Aid Association-2002:Community Based Rehabilitation As We Have Experienced It Voices Of PWD Part-I & Part 2 - WHO, SHIA
- Inderbir Singh 2002:Essentials Of Anatomy: Jaypee Brothers Medical Publishers
- Wynn Kapit/ Lawrence M.Elson 1993: The Anatomy Colouring Book : Addison-Wesley Educational Publishers, Inc.
- Evelyn Pearce 1988: Anatomy And Physiology For Nurses: Jaypee Brothers, India
- R.S.Winwood And J.L.Smith 1995:Anatomy And Physiology For Nurses 6th edition, ELBS edition
- Ab Taly, Bm Maheswarappa, Kp Sivaraman Nair, Uk Syam, T.Murali, 2001: Foundations And Techniques In Neurological Rehabilitation – National Institute of Mental Health and Neuro Science, Bangalore
- Marion Frost And Dr. Ajay Sharma:From Birth To Five Years-Children's Development Progress –Handouts
- Ture Jonsson : Inclusive Education: United Nations Development Programme
- WHO, 1992:The Education Of Mid-Level Rehabilitation Workers- Rehabilitation World Health Organisation
- WHO 1991:Guidelines For Translation And Adaptation Of The Manual-"Training In The Community For People With Disabilities"- WHO
- Promoting Independence Of People With Disabilities Due To Mental Disorders (A Guide For Rehabilitation In Primary Health Care-WHO
- Ajit K.Dalal, Namita Pande, Nisha Dhawan: The Mind Matters-Disability Attitudes And Community Based Rehabilitation -
- Management Of The Child With A Serious Infection Or Severe Malnutrition
- Poverty And Health WHO
- WHO, UNICEF: Primary Health Care: WHO, UNICEF
- New Delhi: St. John- "First aid to the injured"
- The mind matters: disability attitudes and community based rehabilitation.-- Allahabad: Centre of advanced study of allahabad, 2000.
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- From birth to five years: children's developmental progress.--3rd ed. ed.-- London and New York: Routledge, 1973.
- Prevention of disabilities: practical guidebook 1.-- New Delhi, 2002.
- Manual of mental health for multipurpose workers in kannada.--2nd ed. Bangalore: NIMHANS, 1990.
- Health children steps.-- Dr. Veda Zachariah Banglore: Sanjivnee Trust
- Taytanakke mettilugalu.-- Sanjivini Trust Bangalore:
- Simple equipment to help people with disabilities: training materials for community based rehabilitation worker.-- Indonesia: Prof. Dr. Soeharso Community Based Rehabilitation, 1995.
- Serge Rochatte, Handicap International (1990): Therapy Assistant Manual-Vol-I to Vol IV, France: Handicap International
- Nancie R Fannie (1997):Handling The Young Child With CP At Home-3rd Edition, Butterworth Heinemann, MA
- Anjana Jha, Calcutta(1995):Toileting, Your Baby, Physical Manage, Vocational Training, Behaviour Management, Cleaning For Cerebral Palsy, Indian Institute of Cerebral Palsy, Calcutta
- WHO, UNCF and Rehabilitation Unit, Ministry pf Health, Zimbabwe (1997): Let's Communicate (A Handbook For People Working With Children With Communication Difficulties)-Communication, Assessment, Goal Planning, Mental Handicap, CP, Hearing Impairment, Multiple Disability, Geneva
- E. Helander(Geneva), P.Mendis(Srilanka), G.Nelson(Sweden), and A.Goerdt(Geneva),1989:Training Package For A Family Member -WHO, Geneva
- World Confederation for Physical Therapy, WHO, World Federation of Occupational Therapist , 1996:Promoting The Development Of Infants And young Children With Cerebral Palsy , Spina Bifida And Hydrocephalus-A Guide For Mid-Level Rehabilitation Workers- WHO, Geneva
- Archie Hinchecliffe, 2003:Children With Cerebral Palsy- A Manual For Therapists, Parents And Community Workers: ITDG, London
- David Dilli :Handbook Accessibility And Tool Adaptations For Disabled Workers In Post Conflict And Developing Countries: International Labout Office, Geneva
- Mr. Leslie gardner(UK), Prof S.N.Tandon amd Prof. D.Mohan (Delhi): A Manual Of Aids For The Multiply Handicapped –Upkaran: The Spastics Society of India, Bombay
- Economic and Social commission for Asia and the Pacific 1995:Promotion Of Non-Handicapping Physical Environments For Disabled Persons: Case-Studies United Nations
- Indian Institute of CerebralPalsy:- "Feeding for the child with cerebral palsy", "Play for the child with cerebral palsy", "Physical management for the child with cerebral palsy", "Communication for the child with cerebral palsy", "Behaviour management", "Toileting for the child with cerebral palsy".
- Human walking.-- Baltimore: [Williams & Wilkins], [cop. 1994].
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- Muscles testing and function: with posture and pain.--4th ed. Philadelphia: Lippincott Williams & Wilkins, cop.1993
- Prof .Dr. Soeharso Community Based Rehabilitation Development & Training Centre, Indonesia, (1995) -Training Materials For CBR Workers: Indonesia
- David J.Dandy: Essential Orthopaedics And Trauma-Third Edition: Churcheill Living Stone

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- Catherine A. Trombly and Mary Vining Radomski 2002: Occupational Therapy 5th Edition: Lippincott Williams And Wilkins Company
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- Marian E Tidswell,1992:Cash Textbook Of Orthopaedics And Rheumatology For Physiotherapists 2nd Edition: Jaypee Brothers, New Delhi
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- Suzanne "Tink" Martin and Mary Kessler(2000): Neurological Intervention For Physical Therapist Assistants: W.B.Saunders Company
- Barbara Engstrom and Catherine Van De Ven (2001) Therapy For Amputees (Third Edition):Churchill Livingstone
- John H. Bowker And Cameron B.Hall :Normal Human Gait
- WHO United States Department Of Defence Drucker Brain Injury Centre: Rehabilitation for Persons with Traumatic Brain Injury: WHO, Geneva
- LOTCA loewenstein occupational therapy "cognitive assessment"
- Promoting independence following a stroke: World Health Organisation
- Physical therapy in leprosy for paramedicals:- American Leprosy Missions
- Therapeutic exercise: foundations and techniques.—3rd ,4th, ed. Philadelphia: F.A Davis Company
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- Adult hemiplegia: evaluation and treatment. -- London: William Heinemann Medical Books Limited, cop.1978
- Principles and practices of therapeutic massage.-- New Delhi: Jaypee Brothers Medical Publishers (P) Ltd
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- Management of painful musculoskeletal conditions.-- Dr. A.B.Samsi. Mumbai.
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- Physical therapy techniques and devices France: Handicap National, 1990.
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