


CONCEPT OF DISABILITY AND HANDICAPPED REHABILITATION

Dr Abdul Qadoos
Dr Asif Maqsood Butt
Department Of Community Medicine And Public Health
Rawalpindi Medical University

1

QALY

(Quality-adjusted-life-year)



4

Key Facts Of Disability By WHO

Core subject

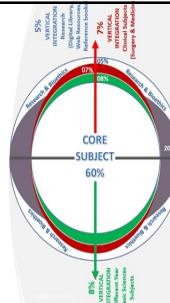
- over 1 billion people live with some form of disability.
- The number of people with disability are dramatically increasing. This is due to demographic trends and increases in chronic health conditions, among other causes.
- Almost everyone is likely to experience some form of disability – temporary or permanent – at some point in life.
- People with disability are disproportionately affected during the COVID-19 pandemic.
- When people with disability access health care, they often experience stigma and discrimination, and receive poor quality services.
- There is an urgent need to scale up disability inclusion in all levels of the health system, particularly primary health care.

7

LECTURE SEQUENCE

S.No	Content	Slides
1	Core content	13
2	Vertical Integration	04
3	Horizontal Integration	02
4	Research	02
5	Ethics	01
6	EOLA	01

• Prof Umar's Model



2

IMPAIRMENT | DIABILITY | HANDICAP

- Biological Issue
- Organ Level
- Person
- Function
- Social Concern




5

IMPAIRMENT

Core subject

- Disease----impairment----disability----handicap
- WHO defines Impairment as:
 - any loss or abnormality of psychological, physiological or anatomical structure or function.
- An impairment may be:
 - visible or invisible
 - temporary or permanent
 - progressive or regressive



8

LEARNING OBJECTIVES

At the end of lecture students will be able to,

- Understand the terms disability, impairment & handicap
- Comprehend scenarios to identify the hierarchy between handicapped, disability and impairment with the help of examples
- Identify different categories of disability along with its causation factors
- Integrate rehabilitation medicine with other disciplines of concern
- Medication management for people in disability and/or mobility limitations

3

Better Health With Disability

Core subject

Better health for people with disabilities

People with disabilities have the same general health care needs as others

But they are:

- 2x** more likely to find health care providers' skills and facilities inadequate
- 3x** more likely to be denied health care
- 4x** more likely to be treated poorly in the health care system




6

Impairment(contd.)

Core subject

Primary impairment leading to secondary impairment as in case of leprosy damage to nerves (primary impairment) leads to plantar ulcers (secondary impairment)

Examples:

- Loss of foot
- Defective vision
- Mental retardation

9

Disability & Handicap

Core subject

Disability:

- "Any restriction or lack of ability to perform an activity in the manner or with in the range considered normal for a human being".

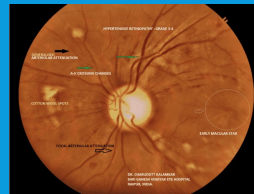
Handicap:

- "A disadvantage for a given individual resulting from an impairment or disability that limits or prevents the fulfilment of the role expected of him in the society that is normal for that individual."

10

Hypertensive retinopathy

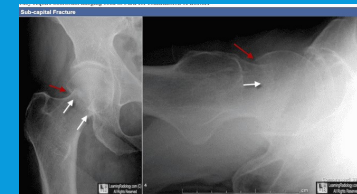
Horizontal integration



13

Conditions Contributing To Different Disabilities

Vertical integration



16

Example

Core subject

Accident/diabetes mellitus-----disease (or disorder)

Loss of foot -----impairment (extrinsic or intrinsic)

Cannot walk-----Disability (objectified)

Unemployed-----Handicap (socialized)

11

Conditions Contributing To Different Disabilities

Core subject



14

Disability Impairment & Developing Countries

Core subject

Major contributing causes (70%)----
communicable diseases,
malnutrition, low quality
perinatal care, accidents

Most effective way of
dealing disability in
developing countries---
primary prevention

17

DIABETIC FOOT ULCER

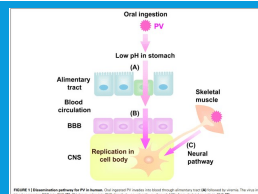
Vertical integration



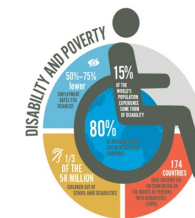
12

Conditions Contributing To Different Disabilities

Horizontal integration



15



DISABILITY
IMPAIRMENT
STATISTICS &
DEVELOPING
COUNTRIES

18

Disability Intervention & Rehabilitation Medicine

Core subject

Early stage (impairment):

- Intervention has a large medical component

Later stages (disability & handicap):

- Mostly social & environmental components in terms of dependence and social cost

Rehabilitation medicine defines as

- "medicine dealing with combined and coordinated use of medical, social, educational and vocational measures for training and retraining of individuals to highest possible level of functional ability".

19

How To Make Productive People Out Of Non-Productive Ones????

Core subject

Establishing schools for blinds

Provision of aids for the crippled

Reconstructive surgery for leprosy

Muscle re education

Graded exercises in neurological disorders

Change of profession with a more suitable one

ACCOMMODATION

- Accessibility standards
- Duty to accommodate
- Assistive technologies

PREVENTION

- Employee Assistance Program and wellness programs
- Special working arrangements
- Occupational health and safety legislation and standards
- Emergency and business continuity plans

SUPPORT FOR RECOVERY

- Sick leave / long-term disability leave
- Disability benefits / workers' compensation
- Early intervention, case management and return to work plan

22

MEDICATION MANAGEMENT IN DISABILITY / MOBILITY LIMITATIONS

Vertical integration

Patient education

- Smoking cessation
- Proper dietary management for feeding and growth
- Proper footwear
- Monitor proper glucose control
- Proper counseling on signs and symptoms of diabetes

Possibilities for multidisciplinary team approach referral

- Orthopedic surgery
- Endocrinology
- Podiatry
- Dermatology
- General surgery
- Vascular surgery
- Wound care
- Psychology
- Dietary counseling
- Adult fracture clinic (when appropriate)

Complication management and prevention

- Infection control
- Debridement

Effective ways to prevent limb amputation from DIABETIC FOOT ULCER

Signs of the most common methods for foot ulcers to stop the wound from developing or spreading

- See a doctor if you have the following signs:
- Redness, swelling, pain, or tenderness
- Cold, numbness, or abnormal feeling in the foot
- Non-healing, persistent, or any lesions
- Cracks, blisters, or sores between toes
- Unexplained skin tears, cuts, or discoloration
- Swelling in one foot or ankle
- Any unusual changes

25

Integrated Approach In Rehabilitation Medicine

Core subject

Following multidisciplinary integrated approach is used to sort out the problems associated with disability:

- Physiotherapy
- Audiology
- Psychology
- Education
- Social work
- Speech therapy
- Vocational therapy
- Vocational guidance
- Placement services

Specialist roles e.g. conference:

- Community nurses
- Physiotherapist
- Hospital doctor
- Nurse
- Home care
- Dietician
- Occupational therapist
- Social worker
- Podiatry
- Audiology
- General practitioners
- Ophthalmology

20

Disability Prevention

Core subject

Primary Prevention
reducing occurrence of impairment

Example: immunization against polio

Secondary prevention
disability limitation by appropriate treatment

Example: control of Diabetes mellitus to avoid complications (diabetic foot)

Tertiary prevention
prevent the transition of disability to handicap

Example: vocational rehabilitation in case of foot amputation in uncontrolled diabetes

23

Research

GREGG EW, MENKE A. DIABETES AND DISABILITY. IN: COWIE CC, CASAGRANDE SS, MENKE A. AL. EDITORS. DIABETES IN AMERICA. 3RD EDITION. BETHESDA (MD): NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES (US); 2018 AUG. CHAPTER 34. AVAILABLE FROM: [HTTPS://WWW.NCBI.NLM.NIH.GOV/BOOKS/NBK567983/](https://www.ncbi.nlm.nih.gov/books/NBK567983/)

In nationally representative analyses conducted for *Diabetes in America, 3rd edition*, 40% of diabetic women and 25% of diabetic men reported major mobility disability, about one-fourth of diabetic adults reported work disability, and one-tenth reported IADL disability. When disability prevalence was expressed as either disability or impairments, more than one-third of men were impacted in work (36%) and mobility (44%), almost one-fourth (23%) were impacted in IADL, and 14% were impacted in ADL. Among older adults (ages 65–74 and ≥75 years), prevalences of mobility disability, IADL, and work disability were generally similar among those with normal glucose, prediabetes, and undiagnosed diabetes but were appreciably higher among those with diagnosed diabetes. Among middle-aged adults (age 45–64 years), the association between glucose classification and disability risk was more continuous, with successively higher disability prevalences across those with normal glucose,

26

Types Of Rehabilitation

Core subject

Medical rehabilitation-----restoration of function

Vocational rehabilitation-----restoration of capacity to earn livelihood

Social rehabilitation-----restoration of family and social relationship

Psychological relationship-----restoration of personal dignity and confidence

21

Disability prevention

Vertical integration



24

Research

HONG MJ, LEE C, LEE C, KIM YS, JEONG JY, PARK J, SHIN DW, SHIN E. ARE HIGH MEDICAL COSTS INCURRED BY PEOPLE WITH DISABILITIES EXCESSIVE? AN EMPIRICAL ANALYSIS OF KOREAN NATIONAL HEALTH INSURANCE DATA. PLOS ONE. 2022 JAN 20;7(1):E0262653. DOI: 10.1371/JOURNAL.PONE.0262653. PMID: 35051218; PMCID: PMC8775209.

Conclusion

Go to: ▶

Various statistical data books show that medical care costs of PWD are much higher than those of the general population and are perceived as being excessive. In this study, multiple regression analyses were performed to adjust for sociodemographic factors, disease status, and characteristics between PWD and PWoD using the NHIS database. As a result, the medical care cost of PWD decreased substantially compared to that of PWoD, from 3.6 times to 1.5 times. This implies that additional adjustment using major variables such as disease severity, which is not available in the NHI database, may predict a further reduction in differences in medical care costs between PWD and PWoD. Thus, it is difficult to determine that the medical expenditure incurred by PWD is excessive through a mere crude (unadjusted) comparative analysis.

27

End of lecture assessment

Vitamin A deficiency has ocular manifestations. It causes metaplasia and keratinization of mucus-secreting epithelium which causes many ocular manifestations such as corneal xerosis ulcerations. These changes are example of

- a) Disability
- b) Vision problems
- c) Impairment
- d) Lack of treatment
- e) Structure damage

28

ETHICS

- Medical care for people with disability
- Health financing for disability limitation
- Health financing for rehabilitation
- Care of extreme age groups

29

*Thank
you*



30