MENTAL RETARDATION

Mr. Pravin R. Gholap
M.Sc. Nursing (Psy)
Principal
Vishwasattya college of Nursing
e-mail:pravin_gholap@yahoo.co.in
Contact No: 09860638640

INTRODUCTION

Mental Retardation (MR) is not a disease but a condition in which the intellectual faculties are never manifested or have never been developed sufficiently to enable the retarded person to acquire such an amount of knowledge as persons of his own age and placed in similar circumstances with him are capable of receiving.

DEFINITIONS

Mental retardation refers to significantly sub-average general intellectual fuctioning, resulting in or associated with current impairments in adaptive behavior and manifested during the developmental period.

(American Association On Mental Deficiency,1983)

Mental retardation as:

- Significantly sub-average intellectual functioning- i.e. an IQ of approximately 70 or below.
- Deficits or impairments in adaptive functioning.
- Onset before age of 18 years.

(DSM IV)

Mental retardation is a condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills manifested during development period that contribute to cognitive language, motor and social abilities

(ICD-10)

INCIDENCE

Individuals with MR represent 1% to 3% of the general population. MR is approximately 1.5 times more common in boys than girls. The highest incidence in school age children with peak at ages 10 to 12.

ETIOLOGY

1. GENETIC FACTORS

- Down's syndrome
- Fragile X syndrome
- Trisomy X syndrome
- Turner's syndrome
- Cat-cry syndrome
- Prader-Willi syndrome

2. METABOLIC DISORDERS

a. Phenylketonuria (PKU)
b. Wilson's disease
c. Galactosemia

- *CRANIAL MALFORMATION*
  a. Hydrocephaly
  b. Microcephaly
- *GROSS DISEASE OF BRAIN*
  a. Tuberous sclerosis
  b. Neurofibromatosis
  c. Epilepsy

3. PRE NATAL FACTORS

- *INFECTIONS*
  - Rubella
  - Cytomegalovirus
  - Syphilis
  - Toxoplasmosis, herpes simplex.
- *ENDROCRINE DISORDER*
  - Hypothyroidism
  - Hypoparathyroidism
  - Diabetes mellitus

- *PHYSICAL DAMAGE AND DISORDERS*
  - Injury
  - Hypoxia
  - Radiation
  - Hypertension
  - Anemia
  - Emphysema

INTOXICATION

  - Certain drugs
  - Substance abus
  - Lead
- *PLACENTAL DYSFUNCTION*
  - Toxemia of pregnancy
  - Placenta PREVIA
  - Cord prolapse
  - Nutritonal growth retardation

4. PERINATAL FACTORS

- Birth asphyxia
- Prolonged or difficult birth
- Prematurity

5. POSTNATAL FACTORS

- *INFECTIONS*
- Encephalitis
- Measles
- Meningitis

6. ENVIRONMENTAL AND SOCIO-CULTURAL FACTORS

- Cultural deprivation
- Low socio-economic status
- Child abuse

CLASSIFICATION OF MENTAL RETARDATION

- Mild (Educable) IQ 55 to70
- Moderate (Trainable) IQ 35to54
- Severe (Dependent retarded) IQ 20 to34
- Profound (Life support) IQ Below 20

MILD

- **Ability to perform self-care activities**: Capable of independent living, with assistance during time of stress.
- **Cognitive/Educational capabilitie**s: Capable of academic skills to sixth grade. As adult can achieve vocational skills for minimum self-support.
- **Social/Communication capabilities**: Capable of developing social skills. Functions in a structured sheltered setting.

- **Psychomotor capabilitie**s: Psychomotor skills usually not affected although may have some slight problems with coordination.

MODERATE

- **Ability to perform self care-activities**: Can perform some activities independently, requires supervision.
- **Cognitive/Educational capabilities**: Capable of academic skill to second grade level. As adult may be able to contribute to own support in sheltered workshop.
- **Social/Communication capabilities**: May experience some limitation in speech communication. Difficulty adhering to social convention may interfere with peer relationships.
- **Psychomotor capabilities**: Motor development is fair.Vocational capabilities may be limited to unskilled gross motor activities

SEVERE

- **Ability to perform self-care activities**: May trained in elementary hygiene skills, requires complete supervision.
- **Cognitive/Educational activities**: Unable to benefit from academic or vocational training. Profits from systematic habit training.
- **Social/communication capabilities**: Minimal verbal skills. Wants and needs often communicate by acting-out behavior.
- **Psychomotor capabilities**: Poor psychomotor development. Only able to perform simple tasks under close supervision.

PROFOUND

- **Ability to perform activities**: No capacity for independent functioning, requires constant aid and supervision.

- **Cognitive/Educational capabilities**: Unable to profit from academic or vocational training. May respond to minimal training in self-help if presented in the close context of a one-to-one relationship.
- No Capacity for socialization skills.
- **Psychomotor capabilities**: Lack of ability for both fine and gross motor movements, requires constant supervision and care. May be associated with other physical disorders.

(Adopted from American Psychiatric Association, 2000 and Sadock and Sadock 2003)

DIAGNOSTIC PROCEDURES

- History collection from parents and care takers.
- Physical examination
- Neurological examination
- Assessing milestones development.
- Investigations
    a) Urine and blood examination for metabolic disorders.
    b) Culture for cytogenic and biochemical studies.
    c) Amniocentesis in infant for chromosomal disorders.
    d) Chronic villi sampling.
- Hearing and speech evaluation.
- EEG, especially if seizures are present.
- CT scan or MRI brain eg:TB
- TFT when cretinism is suspected.
- Psychological test

PROGNOSIS

The prognosis for children with MR has improved and institutional care is no longer recommended. These children are mainstreamed whenever feasible and are taught survival skills.

DISORDERS FREQUENT AMONG MR

I ***PHYSICAL DISORDERS***

- Sensory disorders: Defects in hearing and vision.
- Motor disorders: spasticity, ataxia, epilepsy etc.

II ***PSYCHIATRIC DISORDERS***

a) Schizophrenia: Characterized by poverty of thinking, less elaborate delusions, simple and repetitive hallucinations. Treatment is same as of patient with normal intelligence. Diagnosed only if there is deterioration in intellectual or social functioning. Difficult to diagnose if IQ below 45

b) Mood disorders:
   - Depressive disorders: Diagnosed on appearance of sadness, retardation or agitation, suicide attempts may be seen.
   - Mania: Diagnosed mainly in over activity and behavioral signs suggestive of elevation of mood.

c) Neurosis: Common in less severely retarded especially while facing changes in the routine of their lives. Clinical pictures are often missed. Treated by increased adjustment to environment.

d) Personality disorders: Common in mentally retarded.

e) Organic psychiatric disorders: Dementia is usually diagnosed after 18 years or when there is definite decline in intellectual capacity and adaptive behaviors.

f) Behavior disorders: Mannerisms, head banging and rocking are common among severely retarded (seen in about 40% f children and 20% of adults.).Repeated self injurious behavior, hyperkinetic syndrome, temper-tantrums, self-stimulation are also evident.

g) Sexual problems: Masturbation in public is the most frequent problem. .Severely mentally retarded is not likely to become good parents.

EFFECTS OF MENTAL RETARDATION ON THE FAMLY

- Distress, feelings of rejection
- Depression,guilt,shame or anger

- Rejection of child.
- Social problems.
- Overindulgence.
- Marital disharmony.(in some)
- Burden of care for their child.
- Dissatisfaction about medical and social services9even when they are normal)

PREDISPOSING FACTORS

Important predisposing factors are low socio-economic strata, low birth weight (of child.), advanced maternal age and consanguinity.

DIFFERENTIAL DIAGNOSIS

1. Delayed maturation(specific developmental disorders)
2. Blindness or other sensory defects.
3. Childhood psychoses(childhood onset schizophrenia)
4. Childhood autism
5. Severe neurosis
6. Systematic disorders with physical handicap.
7. Deprived children wit insufficient stimulation
8. Epilepsy
9. States due to the side effects of drugs (antipsychotics,anticonvulsants)

MANAGEMENT

No satisfactory treatment is available till today. No drugs are available to increase the level of intelligence. Most of the mentally retarded children brought for treatment can only be benefited only to a limited extent.

PRIMARY PREVENTION

1) Health promotion: It is directed at

- Good antenatal care and encouraging deliveries in hospitals under proper supervision and care.
- Improving the socio-economic status of the country.
- Education of the public to help in early detection of MR also, to remove various misconceptions about its causes and treatment.
- Facilitating research to identify the causes, and to invent new methods of treatment.

2) Specific protection

- Good prenatal, natal and postnatal care to the pregnant mother at risk.
- Genetic counseling to at risk patients eg: in phenylketonuria.
- Avoid childbirths in late age of mother(e.g.: to prevent Down's syndrome)
- Avoid consanguinal marriages in case the hereditary factors are operative.
- Avoid marriage of mentally retarded (especially to mentally retarded) where strong factors are operating.(e.g.: TB)
- Vaccination of girls with rubella vaccine to prevent teratogenecity in fetus due to rubella.
- Avoid giving pertusis vaccine to children with history of convulsions or neurological abnormalities.

SECONDARY PREVENTION

- Early detection and treatment of preventable disorders can be effectively treated at an early stage by dietary control or hormone replacement therapy.
- Early recognition of presence of MR.A delay in diagnosis may cause unfortunate delay in rehabilitation.
- Psychiatric treatment for emotional and behavioral difficulties.

TERTIARY PREVENTION

This includes rehabilitation in vocational, physical and social areas according to the level of handicap. Rehabilitation is aimed at reducing disability and providing optimal functioning in a child with MR

COUNSELLING TO PARENTS

Parents should be explained about the causation and prognosis of MR

- To educate parents and families in caring for the mentally handicapped (eg: training house hold activities)
- Special supervision for the physically handicapped or those severely and profoundly mentally retarded.
- Treatment of psychological problems in parents(eg:depression in mother resulting in under stimulation of a child resulting in retardation)

COUNSELING TO TEACHER

- Observe the symptoms in child
- Communicate or discuss with other teacher
- Change the education method for that child
- Educate the child as per his interest eg- instead of mathematic drawing
- Don’t force the child for study
- Avoid physical harm to the child
- Take the help of experts when required.
- Accept the child as he is.
- Educate and guide the child personally..
- Teach in small groups.
- Use few and simple words and maximizes demonstrations.
- Over teach the cognitive information.
- Provide opportunities for choice of activities.
- Program for generalization with the use of different people, equipment, environments and times

- Present information and instructions in small, sequential steps and review each step frequently
- Provide a well-rounded program of fitness and motor activities based on each student's present level of performance and developmental psychomotor needs.

HOSPITILIZATION

It is estimated that about 4/1000 children are severely mentally retarded and about one fourth to one third needs hospitalization.

a) Behavioral difficulties due to
   - Attention deficit disorder with hyper kinesis
   - Destructive,assaultive behavior
   - Psychoses
   - Organic psychosis

b) Social factors
   - Overcrowding
   - Incompetent parents
   - Mentally retarded or psychotic parent
   - Single parenthood
   - No one to look after

CONCLUSION

Mental retardation is not disease but a condition in which the intellectual faculties are never manifested or never been developed sufficiently to enable the retarded person to acquire such an amount of knowledge as persons of his own age and placed in similar circumstances with himself are capable pf receiving.

BIBLIOGRAPHY

Books

- M.S.Bhatia"Essentials of Psychiatry"5th edition,CBS publishers and distributors ,New Delhi

- R.Sreevani “A guide to mental health and psychiatric nursing”,Jaypee brothers, New Delhi
- Dr.K.Lalitha”Psychiatric and Mental Health Nursing-An Indian Perspective”VMG Books, Bangalore
- Mary.C.Townsend,”Essentials of Psychiatric Mental Health Nursing”3rd edition. A Davis Company ,Philadelphia
- Albert.J.Solnit et al”Child Psychiatry” vol.six,J.B.Lippincot
- Mary.C.Townsend”Nursing Diagnoses in Psychiatric Nursing 6th edition,F.A.Davis Company, Philadelphia
- www.google.com
- www.yahoo.com
- www.pubmed.com
- www.tahperd.org

Journals

a) Psychiatric Annals March 2000
b) My Doctor, Sep 2