



## REHABILITATION OF A SUBJECT WITH MENTAL RETARDATION – A CASE REPORT

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### ABSTRACT

**Introduction:** Mental retardation is a permanent condition characterized by subaverage intelligence, which causes limitations in learning and adaptive functioning. **Methodology:** The case study was conducted on Miss. Siddilingamma during last week of February 2023 at Nachiketa Manovikasa kendra in Bangalore. The patient was treated with some exercise to improve Quality of life, eg. Therapeutic Ball exercise, Balance and coordination exercise, music and dance therapy and some Stretching. **Conclusion:** During the last 3 days of Physiotherapy session we had with the patient, we could see the improvement from day 1 until our last session together. She improved gradually during the course of treatment. The improvement came after positive attitude, willingness to get back to normalcy and of course with the regular Physiotherapy session.

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### INTRODUCTION

The American Association on Mental Deficiency has defined mental retardation as "significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior, arid manifested during the developmental period According to this estimate, about 3% of the total population, ie, 6 million out of 200 million, are mentally retarded in the United States, No statistics are available regarding the incidence of mental retardation in India, a vast country with 550 million people. The financial outlay and the personnel required to conduct the survey are not available. From the findings of a few sample surveys in Bombay, Calcutta, Delhi, Mysore and Nagpur and also from WHO reports (1968) the number of mentally retarded in india can be reasonably assess - about 4% to 22 million of the Indian population are mental retarded. When this figure is added to the 44 million parents of retarded person, the problem of mental retardation afflicts one out of every nine individuals in India.<sup>1</sup>

Mental retardation is a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skill.<sup>2</sup>

Risk factors for mental retardation were studied prospectively in 12,000 children born in northern Finland in 1966 and followed to the age of 14 years. The number of untraced children was less than 2 per 1000 Altogether 326 children had an IQ less than 86, and the incidence of severe retardation less than 50 was especially high. An incidence figure for children with mental retardation, a separate figure

for healthy children and also death rate were calculated for each disease. Only in the cases of Down's syndrome and some hereditary diseases were all posed children mentally retarded; in other diseases some children did not seem to suffer any sequelae. Risk factor could be by 50.6% of the total number of children with mental retardation the percentage decreasing from the dovelastic encestrore (86.7%). Some 9.4% of the healthy children and 77.7% of those who died had one of more of these conditions. Prenatal conditions were most often associated with severe mental retardation (64%) and pernatal condition with retardation and mental sub-normality (IQ 71 to 85, 8%) Cases with no known factor were more common among boys than girls.<sup>3</sup>

According to the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, enacted in India, mental retardation means a "condition of arrested or incomplete development of mind of a person which is specially characterized by sub-normality of intelligence".

To this date, a systematic enumeration of the number of persons with disabilities in the country has not been made, the reason being the large geographical area. Data on educational and other needs of pre-school, school going children, youth, adults and senior citizens is not available.<sup>4</sup>

#### Classification of Persons with Mental Retardation

##### Educational Classification

In the special education centres in India, the classroom classification in operation is as shown below:

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I. Pre-Primary (A) level	II. Pre-Primary (B) level	III. Primary level	IV. Secondary level	V. Pre-Vocational level
Chronologic al ages 3 – 6 years - Mental ages Upto 5 years	Chronologic al ages Over 6 years - Mental ages Around 4½ years	Chronologic al ages 7 – 10 years - Mental ages 5 – 7 years	Chronologic al ages 10 – 13 years - Mental ages 7 – 9 years	Chronologic al ages 14 – 16 years - Mental ages 8 + years

Most of the classification systems define mental retardation with emphasis on significantly sub-average intellectual functioning of the individual (assessed by the standardized intelligence tests).

In India, where a majority live in rural areas, engaged mostly with traditional, semi-skilled vocations, the adapted Indian intelligence tests have limitations in assessing the exact levels of intelligence due to lack of standardization on such population.

No standard test has been so far developed suited to the Indian cultural milieu.<sup>5</sup>

### ***Incidence and Magnitude of Mental retardation in India***

#### ***Estimates in India***

Most available data on the prevalence of mental retardation in the country is derived from the psychiatric morbidity surveys conducted by the mental health professionals in specific circumscribed geographical areas or on target populations, such as rural-urban, industrial population and educational institutions.

The prevalence rates of mental retardation, some from the school population, some from the general population, is reported from 1951 to 1994, in the range of 0.07 to 40 per 1000. The prevalence rates for mental retardation in the school population and the general population, rural and urban, based on psychiatric morbidity survey ranges from 0.1 to 140. The sample selected has been a skewed one. The variation in these figures does not give a clear picture of the situation.<sup>6</sup>

#### ***Case Report***

A 45 year old woman Siddilingamma suffering from Mental Retardation she is 3rd child by consanguinity marriage. Currently she is having problem with Balance and coordination, Hand function and scared of heights. She is having past medical history of operation at age of 9th month at Martha's Hospital, Bengaluru. Till 3rd month patient developed normally, from 3rd month onwards patient started to vomit whatever she used to eat. At 7- 8 months it was diagnosed that intestine was folded and by 9 month her condition was critical, and surgery has been performed as mentioned earlier. She was breast fed till the age of 6 years old. No relevant Family History apart from Consanguinity marriage.

A detail assessment was taken in which it revealed that patient Cranial Examination, Sensory and Motor assessment is NORMAL.

In coordination finger opposition, supination / pronation and standing in one leg was unable to perform by patient.

The patient is currently suffering from fear of height, balance and coordination, hand function.

### ***Scales***

1. Functional Independence Measures (FIM) ,Total Score is 99 which is considered as INDEPENDENT.<sup>7</sup>
2. Berg Balance scale, Total score is 41 which is considered as INDEPENDENT.<sup>8</sup>

### ***Problem List***

1. Acrophobia (Fear of height)
2. Balance and coordination
3. Hand function
4. Speech problem
5. Functional dependent ( partially)

### ***Goals***

#### **SHORT TERM GOALS:**

1. Patient Education
2. Improve Strength
3. Balance Training
4. Relaxation Techniques

#### ***Long Term Goals***

1. Patient Education -
2. Isometric Exercise
3. Improve and Restore Balance
4. Improve Quality of life
5. Return to Normal Life

### ***Physiotherapy Management***

As per above mentioned goals, physiotherapy treatment will be given to patient. The first most important thing of Therapist is to ensure the patient family regarding treatment and gain their confidence.<sup>9</sup> The treatment will start with strengthening exercises with shorter sessions (5-10 minutes) for particular area of the body and gradually increase the time from 20-25 minutes, eg: passive exercise, Stretching, Therapeutic Ball exercise for Hand functioning e.g. power grip, pinch, table roll, finger flexion and Gliding exercise (touch and trace, Duck exercises, Hook exercises, Full fist), Isometrics (Open and closed exercises), Band exercises, Shoulder wheel.<sup>10,11</sup> For Balance and coordination mirror therapy (walk in front of the mirror with support), Tandem walking, Side walking, Tandem standing for at least 10-15 minutes 4-5 days per week. And for progression perturbation can be given while standing to improve Dynamic Balance<sup>12,13</sup>. For Gait training, in the parallel bar forward, backward and sideways walk can be done (it should be done under supervision) for 10-15 minute, and for progression obstacle walking can be done by placing rods and cones. Heel walking and Toe walking can be encouraged for the patient.<sup>14</sup> Aquatic therapy can be useful for patient, it can help or improve muscle power against the buoyancy effect.<sup>15</sup> For fear and anxiety Relaxation Techniques can be used, eg: music therapy, art therapy, aromatherapy, massage, etc.<sup>16</sup> If after regular session of Physiotherapy patient improve her condition then functional training can be started, encourage the patient to perform activities of daily living eg: polishing, cleaning windows, scrubbing floor, hanging clothes, painting, lifting & carrying a bucket in one hand.<sup>17</sup>

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