

# Mental Retardation in Children

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## Abstract

One hundred and eighty three children suffering from mental retardation were studied over a period of 17 months (December'80 - April'82). Mental retardation in 101 cases (55.2%) was due to preventable causes i.e. tubercular meningitis, birth trauma, encephalitis, cretinism and kernicterus. Majority of them belonged to lower socio-economic group and had no access to medical facilities, therefore could not be treated in time to avert or arrest the process leading to mental retardation.

Eighty two cases (44.8%) were due to encephalitis of unknown origin, microcephaly, mongolism, degenerative brain disease and other congenital disorders (JPMA. 34 :157, 1984).

## Introduction

Mental retardation is defined as significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during development period (Heber, 1961 ; Hughes, 1980; Sellin, 1979). This definition includes children whose intellectual deficits are a result of biologic damage and those whose function is handicapped by adverse social circumstances (Kempe, 1982).

These patients were divided into two groups. Group-I included patients in whom the mental retardation could be prevented by early recognition and treatment of the cause (tuberculous meningitis, birth trauma, encephalitis, cretinism and kernicterus).

Mental retardation in group-II was due to encephalitis of unknown origin and other congenital and genetic disorders.

There are about 450 million disabled persons in the world which accounts for 10% of the total world population. Of these 4% are mentally retarded. Eighty percent of these disabled are living in the developing countries. Pakistan belongs to the Eastern Mediterranean region of W.H.O. having a population of 86.5 million (Current Survey, 1981) and 45% of the population are children under fifteen years. There are 8.6 million handicapped persons, of which about 4 million are children and 4% of these i.e. about one million are mentally retarded (Hermano, 1981).

This paper attempts at studying the prevalence, etiology and the extent of problems in mentally retarded children attending the out patient department of Nishtar Medical College, Multan. It also highlights the importance of preventive, curative and rehabilitative services.

## Material and Methods

The data had been collected on the basis of daily outdoor attendance six days a week for 1½ years from December 1980 till April 1982. A card was filled by the Paediatrician on each mentally retarded child. The information included the patients' name, age, sex, urban or rural, socioeconomic status, environment, milestones of development, behaviour development, necessary investigations and hospitalization if needed to clinch the diagnosis.

## Results

Of 34,336 new patients, 183 were mentally retarded. One hundred and one (55.2%) were placed in group-I and 82 (44.8%) in group-II.

Table – I

Etiological Diagnosis.

Easily - preventable causes Group I		Not easily-preventable causes Group II	
Tuberculous Meningitis	29	Post Encephalitis	29
Birth Anoxia	20	Microcephaly	16
Birth Trauma	12	Mongol	11
Post Epileptic (M.D)	10	Degenerative Brain Disease	11
Post Measles Encephalitis	7	Morquios Syndrome	3
Cretin	6	Hydrocephalus	3
Post Pyogenic Meningitis	5	Craniosynostoses	2
Polio Encephalitis	4	Cong. Infections	2
Post Kernicterus	2	Wilson's Disease	2
Maternal Toxemia of Pregnancy	2	Hurler Syndrome	1
Galactosaemia	1	Non-Infective Space occupying Lesion	1
Mumps Encephalitis	1	Cynotic Heart Disease	1
Post Traumatic Heat Stroke	1 1		
Total	101 (55.2%)		82 (44.8%)

Table-I shows the causes of mental retardation in group-I and II. Most of the children in both groups were severely retarded. Seventy per cent with mild mental retardation who are not brought to the hospital are probably a by-product of poverty and environmental deprivation (Sellin, 1979). There were 113 males and 70 females. Male to female ratio being 1.6:1. Sixty five per cent patients belonged to the urban and 35% to the rural population. Seventy one per cent (130) belonged to the poor (less than Rs. 500/- per month), 23%, (42) to the middle (Rs. 501/- to Rs. 1000/- per month) and 6% (11) to the upper class.

The age distribution of mentally retarded children is shown in

**Table – II**  
**Percentage of Mentally Retarded**  
**Children brought at Various Ages.**

Age	Number of patients	Percentage
0 – 2	55	30.0
2 – 5	80	43.71
5 – 10	39	21.0
Above 10 years	9	5.0

Table-II according to which majority of the cases (43.7%) were between 2-5 years of age. Of these only 21.3% were educable and 37.79% trainable (Table -III).

**Table – III**  
**Classification of Intelligent Quotient**  
**Basis**

	Number of Patients	Percentage
Educable	39	21.31
Trainable	69	37.79
Non trainable	75	40.9

### **Discussion**

The causes of mental retardation differ in different countries. In this study the main causes were birth trauma, birth anoxia, tuberculous meningitis, post measles encephalitis and kernicterus. All these

conditions are easily preventable. Simple measures like deliveries in hospitals, B.C.G. vaccination and early case detection reduced the frequency of mental retardation from 20% - 5% in the series reported by Paul (1982).

Early detection of Rh and ABO incompatibilities and mosquito control to prevent Japanese B encephalitis may reduce the frequency of mental retardation due to kernicterus and encephalitis.

Mongolism occurs more frequently in children born to mothers over 40 years of age (1:100) and less in children born to younger mothers (1: 1000) (Paul, 1982).

The male preponderance shown in this study may be related to biological factors (sex linked genetic disorders) . and in part to social expectations for the sexes (Vaughan et al., 1979).

## References

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