

# **CHAPTER - 1**

## **INTRODUCTION**

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A democratic welfare society which we talk about is where people live without any prejudices, with equal freedom and equal rights. Here the democratic values are settled as leading ideologies in particular, where humanism and rationalism are inter-woven in the fabric of our lives. When such ideologies are inter woven in our lives then why such injustice to the so-called differently abled persons. Further we talk of a society which is hopeful of having mentally disabled people living in harmony with their abled colleagues-fully understood and fully supported. Taking into consideration all these aspects and for the upliftment of these people in the society a remarkable progress in the fields of social, economic and medical advances has gained impetus. However, there are many more problems which still remain to be dealt with.

In this fast growing world it is generally believed that around 4% of the population constitutes one or the other kind of disability. Out of these 3% constitute persons with mental retardation. However, there is no systematic survey conducted in India to determine the exact number. In 2000 the survey conducted by Indian National Institute for the mentally handicapped (NIMH), Secunderabad reveals an estimation of about 20 million persons who are mildly retarded and about 4 million persons falling under the moderate and the severe categories of mental retardation. If we talk about the world scenario then there are more than 500 million people in the world today having some form of disability. At least 150 million of them are children out of which 120 million live in the developing countries. Still further, it can be estimated that one child in every ten children is born with some form of impairment which leads to permanent disability. (WHO - 2007).

The terms mental retardation, mental deficiency, mental sub normality and mental handicap have recently come into vogue when a provision was made in the National Policy on education (1986). These words are used interchangeably and

they all refer to the same condition. The terms prevalent in the past like Amentia, Idiocy, feeble-minded, moron, imbecile, oligophrenia etc are now out of use and they have become obsolete.

## **1.2 HISTORICAL PERSPECTIVE ABOUT MENTAL RETARDATION**

Before the advent of 20th century, the interest in children with mental retardation had waxed for more than 100 years. In around 1800, there was no provision for the persons with mental retardation in the society - they were either killed by throwing them over a cliff or drowned, and if they were made to survive then they were left on their own without care and attention from the people of the family or of the society. People then thought it to be a bad omen having a child with mental retardation and it was a punishment given to them from the mighty lord. Thus nothing was done for such people in the 18th century. In the 19th century some progress in the area of mental retardation was seen and mainly it was put forward by the works of Jean Itard who understood the task of educating up to civilized state a young boy who had been living in a wild and savage like condition. Since then the educational model which is even prevalent today came to be known as Itard's model. And through his efforts for the first time people started developing hope for those who then were considered as hopeless. Further his training programme or his educational module is considered as the first scientifically documented report for the training and treatment of persons with retardation by means of planned education. In spite of his efforts many misconceptions still prevailed in the society among the general public as well as professional workers. Among many of such misconceptions few being (a) mental deficiency was a disease and delinquency and criminal behaviours were seen because of this, (b) Persons with mental retardation were considered to be insane and were labeled the same, (c) The women who gave birth to such children were considered as having affected by some omen and she along with her child was abandoned from the society.

After the work of Itard many people got interested in the area and came forward with their works. Globally special education has been viewed under four major headings –

(a) Stage of neglect where disability was viewed as punishment for the parents for their past sins and nobody wanted to interfere in the justice of lord.

(b) Pity and compassion for the disabled. In this stage the religious institutions has motivated family and society so as to free the person from pain or to reduce his misery and pain.

(c) Emergence of the special schools. The main focus of these schools was to segregate the so called disabled from their counterparts.

(d) Main streaming and Integration. After segregating them in special schools and making them self efficient the focus was on admitting them into general schools along with their normal counter parts. It was a step taken as a part of attaining normalization on the part of these children.

During the 50's and 60's a growing concern for the children with mental retardation developed where in experts from different walks of life like medical practitioners, sociologists, psychologists, teratogenologists, social workers etc came forward to help these children and efforts were made on their parts. The Parents were motivated to form parents group. Thus such groups started to organize. All of them realized the ultimate need for integration of children with special needs into the social fabric of society. They need to be occupied as the functional beings as per the universal declaration of human rights reflected in the national aspirations embodied in the constitutional documents in developmental plans.

The work in mental retardation in the western countries goes back in 1960's where people came to know about the capabilities and potentials of these people. In India it started in 1970's with the advent of National Institute for the Mentally Handicapped (NIMH) at Secunderabad. Since then there is no looking back, today in 2008 every day new strategies are being developed and applied for the overall development of persons with mental retardation. Special as well as integrated schools have been set up for their educational, social and physical

well being. A multi disciplinary approach involving professionals in different discipline should come together and work for the overall development of the child. It is not only the person affected is being taken care of, but also all the rest of the people who are directly associated with him are sensitized and made aware about the problem. Thus force is applied from all directions for the overall development of the person. Parents as well as society have become much aware about such people due to which the label and the stigma attached to them have reduced and their acceptance in the society has increased.

### **1.3 EDUCATIONAL AND LEGISLATIVE PERSPECTIVE IN MENTAL RETARDATION**

For a long time people with disabilities have been deprived of basic human rights like an honorable place in the family, education, training and employment. This is not because they can not receive education or training but it is largely because of the negative attitude prevalent in the community. These negative attitudes are basically the product of perceiving disability as threat and we forget that individual differences are an integral part of life. We need to emphasize the fact that people with disability can become as productive as the rest of us. Irrespective of whether the disability is visible, invisible, mild, moderate or severe, the individual does possess quiet a bit of potential for developing his remaining abilities for his own advantage and for the advantage of the community.

Since 1947, many social interventions in the area of disability have been made. In 1977, the ministry of social welfare reserved 3% vacancies in government departments and public undertakings for the visual, hearing and loco motor impairment. The year 1981 was declared as the International year of disabled person. As a result, in 1981 many NGO's launched new programmes for the education and rehabilitation for the disabled. The period between 1983 to 1992 was declared as an Asia - Pacific decade for the disabled. The United Nations General Assembly developed a world programme of action concerning disability and laid down standard rules to equalize opportunities for persons with disabilities.

### **1.3.1 National Policy on Education (NPE) (1986)**

Taking into consideration all these aspects a national policy on education was put forth in 1986 which for the first time emphasized for

- (a) The education of children with mild disabilities in regular school.
- (b) Children with severe disabilities to be placed in special school with hostel facilities.
- (c) Initiating Vocationalisation of education.
- (d) Teachers training programmes to be re-oriented to include education of the disabled children.
- (e) All voluntary efforts to be encouraged.

### **1.3.2. Programme of Action (POA) (1990)**

The programme of Action of India (POA) called for the establishment of special schools at district and sub district levels, curricular development a part from provision of infrastructure facilities and specific target setting for universal primary education for the children with disabilities. It was for the first time that the education of the disabled had been recognized as a human resource development activity, rather than a more welfare activity.

### **1.3.3. Rehabilitation Council of India Act 1992**

This act passed in 1992 for the purpose of constructing the rehabilitation Council of India, for regulating the training of rehabilitation professionals and for maintenance of a central rehabilitation register. It was amended by rehabilitation council of India Act, 2000, to provide for monitoring the training of rehabilitation professionals and personnel, promoting research in rehabilitation and special education as additional objectives of the council.

### **1.3.4 Persons with disabilities (Equal opportunities protection and right and full participation) ACT 1995**

This was passed by the parliament on December 12, 1995 and notified on February 7, 1996. The act elaborated the responsibility of the central and state government, local bodies to provide service, facilities and equal opportunities to

people with disabilities for participating as productive citizens of the country. The act enlists the rights and facilities persons with disabilities would be entitled to and which are enforceable. Thus it provides both preventive and promotional aspects of rehabilitation. The disabilities covered in the act are blindness, low vision, leprosy cured, hearing impairment, loco motor disability, mental retardation and mental illness.

The act further envisages that every child with disability should have access to free and adequate education till the age of 18. Students with disabilities should be integrated into general schools. Special schools should be established in government and private sectors and equipped with vocational training facilities.

#### **1.3.5. National Trust Act (For the Welfare of Persons with Autism, cerebral palsy, mental retardation and multiple disabilities) 1999**

The National Trust Act is a statutory body under the Ministry of Social Justice and Empowerment. Government of India set it up for the welfare of persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act (Act 44 of 1999). The main objectives of the act are (a) to enable and empower persons with disability to live as independently and as fully as possible within and as close to the community to which they live. (b) to strengthen facilities to provide support to persons with disability (c) To facilitate the realization of equal opportunities, protection of rights and full participation of persons with disability. The thrust areas of the act are - campaign for positive attitudinal change creating barrier free environment, developing skills, promoting self help groups, research in the four areas of disabilities. Advocacy for the rights of persons with four disabilities, programme for persons with severe disabilities and women with disabilities.

#### **1.3.6 National Handicapped Finance and Development Corporation (NHFDC)**

This is a scheme introduced by government of India for enhancing employment of persons with disabilities. According to this any Indian with disability in the

age range of 18-55 yrs with 40% or more disabilities is eligible for the scheme. Specific jobs have been identified for persons with intellectual impairment for availing the facility of loan through the scheme.

### **1.3.7 Scheme of Assistance to Disabled person for purchase of fitting of Aids and Appliances (ADIP)**

Provision of aids, appliances and assistive devices at low cost has been a major objective of the government of India. Under this scheme persons with mental retardation may receive free of cost assistive devices, educational kits and supplies for daily living skills depending upon the income of the parents.

### **1.3.8 Integrated Education for the Disabled Children**

It is a scheme implemented by the ministry of human resources development. In this, the trained resource teachers support the regular class teacher so as to provide appropriate education to children with disabilities.

### **1.3.9 National Institute of Open School (NIOS)**

It is a programme of open education in which children with intellectual impairment are included. Those with borderline intelligence can study at their own pace with a reduced curricular content as per this school system.

### **1.3.10 The District Primary Education Programme (DPEP) or the Sarva Siksha Abhiyan**

Throughout the world inclusive education has been emphasized, the DPEP too aims at including the children at primary level i.e. up to class 5 with suitable teacher participation, infrastructural facilities and Aids and appliances.

### **1.3.11 Community Based Rehabilitation Programme (CBR)**

CBR programme has been implemented in India as children are always with families and their neighbours always extend helping hand whenever and wherever needed. A CBR programme is a systematic approach to help the disabled persons within their own community making the best of social resources and helping the community to become aware of their responsibility in

this regard. The main focus of this is to provide services from within and with the active involvement of the community, family and the local administration.

### **1.3.12 UN Declaration on the rights of Disabled Persons**

The UN General assembly proclaims the declaration on the rights of the disabled persons and called for National and International action to ensure that it will be used as a common basis and frame of reference for the protection of these rights.

- (1) The term disabled person means any person unable to ensure by himself or herself, wholly or partly, the necessities of a normal individual and / or social life as a result of deficiency either congenital or not or his physical or mental capabilities.
- (2) Disabled persons shall enjoy all the rights set forth by this declaration. These rights shall be granted to all disabled persons without any exception what so ever and without distinction or discrimination on the basis of race, colour, sex, language, religion, political or other option, national or social origin, state of wealth, birth or any other situation applying either to the disable person himself / herself or his or her family.
- (3) Disabled persons have the equal right to respect for their human dignity. Disabled persons, whatsoever the origin, nature and seriousness of their handicaps and disabilities have the same fundamental rights as their right to enjoy a decent life as normal as possible.
- (4) Disabled person have the same civil and political rights as other human beings. Paragraph -7 of the declaration on the right of persons with mental retardation applies to any possible limitation or suppression of those rights for mentally disabled person.
- (5) Disabled persons entitled to the measures designed to enable them to become as self reliant as possible.
- (6) Disabled persons have the right to medical, psychological and functional treatment including all appliances, medical and social rehabilitation, education, vocational training, counseling, placement services and other

services which will enable them to develop their capabilities and skills to the maximum and will hasten the process of their social integration and reintegration.

- (7) They have the right to economic and social security and to a decent level of living. They have the right according to their capabilities to secure and retain employment or to engage in a useful, productive and remunerative occupation and to join trade unions.
- (8) They are entitled to have their special needs taken into consideration at all stages of economic and social planning.
- (9) They have the right to stay with their families or foster parents and to participate in all social, creative and recreational activities.

#### **1.4 NATURE AND MEANING OF MENTAL RETARDATION**

Many definitions on mental retardation had been given by different individuals before the definition given by the American Association of mental retardation. Among them Dolls (1941) defines mental retardation which then was called feeblemindedness as a mental deficiency. It is a state of social incompetence obtained at maturity resulting from developmental arrest of intelligence, because of constitutional (hereditary or acquired) origin. Here Dolls emphasizes lack of social adaptability which was seen as a result of immaturity, lower intelligence which has occurred because of hereditary or environmental factors.

Treads Gold views mental retardation in a slightly different manner. According to him mental retardation is a state of incomplete mental development of such a kind and degree that the individual is incapable of adjusting himself to the normal environment, like his fellows, in such a way as to maintain existence independently, of supervision, control or external support.

Other personnel in this area views mental retardation as a deficit in intellectual functioning. According to Benoit, mental retardation is a deficit of intellectual function resulting from varied intrapersonal and / or extra determinants, but having as a common proximate cause a diminished efficiency of the nervous

system. Thus entailing a lessened general capacity for growth in perceptual and conceptual interpretation and consequently in environmental adjustment (Kirk and Johnson, 1957).

As stated earlier prior to September, 1959 mental retardation had many different definitions given by individual in various fields. But for legal purpose each state had its own definition and according to American Medical Association – Mental Retardation refers to sub average general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following (1) maturation (2) learning and (3) Social adjustment.

World Health Organization (WHO) (1981) has given a definition of mental retardation according to which those children whose intellectual deficit is sufficiently severe so as to result in academic disabilities, are regarded as mentally retarded children. In this definition the WHO has emphasized the level of intellectual functioning to be responsible for mental retardation.

There are many more definition on mental retardation but the most comprehensive and most widely used till date is the one given by the American Association on Mental Retardation (AAMR) according to which - "mental Retardation refers to significantly sub-average general intellectual functioning, resulting in or associated with concurrent impairments in adaptive behaviour manifested during the developmental personal. "(AAMR - 1983).

While analyzing the most comprehensive definition on mental retardation, the general intellectual functioning here is defined by the intelligence quotient (IQ) which can be obtained by the assessment with one or more of the standardized, individually administered intelligence tests which are developed for the purpose and adapted to the condition of the region or the country.

Significantly Sub-average intellectual functioning is defined as IQ of 70 or below on standardized measures of intelligence. The upper limit is intended as a guideline, it could be extended to 75 more, depending upon the reliability of the

intelligence test used. Here it has been recorded that IQ varies from person to person with mental retardation.

Adaptive behaviour is defined as the degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group. Adaptive behaviour may be influenced by various factors including education, motivation, personality characteristics, social and vocational opportunities and the mental disorders and general medical conditions that may coexist with mental retardation. The problems in adaptation are more likely to improve with remedial efforts than is the cognitive IQ which tends to remain a more stable attribute.

The deficits in the adaptive behaviour may be reflected in the following areas -

- During infancy and early childhood in -
  - (a) Sensory and motor skill development
  - (b) Communication skills including speech and language
  - (c) Self help skills
  - (d) Socialization
- During childhood and adolescence in -
  - (a) Application of basic academic skills in daily life activities.
  - (b) Application of appropriate reasoning and judgment of mastery in environment.
  - (c) Social Skills
- During late adolescence and adult life in -
  - (a) Vocational and social responsibilities and performances
- Developmental period - It is defined as the period of time between conception till 18 years of his life.

#### **1.4.1. Classification**

Classification of any condition is done so as to -

- (a) Help in using an acceptable, uniform system throughout the world.
- (b) Help in diagnostic and research purpose.
- (c) To facilitate efforts at prevention.

There are different methods of classification of mental retardation. They are medical, psychological and educational. The medical classification is based on the cause, the psychological classification on the level of intelligence and the educational classification on the current level of functioning of the person with mental retardation.

The Classification being -

Medical	Psychological	Educational
1. Infection and Intoxications	1. Mild with an IQ ranging between 50-70	1. Educable with an educational level ranging between (50-75) IQ
2. Trauma	2. Moderate with an IQ ranging between 35-50	2. Trainable with educational level ranging between (25-50) IQ
3. Metabolism or Nutrition	3. Severe with an IQ ranging between 20-35.	3. Custodial with educational level ranging below 25. IQ.
4. Gross brain disease (postnatal)	4. Profound -- bellow- 20	
5. Unknown prenatal influence		
6. Chromosomal abnormality		
7. Gestational disorder		
8. Psychiatric disorder		
9. Environmental influence		
10. Other influence		

Source Diagnostic and statistical manual of mental disorders - DSM-IV-1994.

These various classifications provide an understanding of the level at which the mentally retarded person functions with respect to his education, appropriate behaviour and the degree of his independence. The characteristics of the mentally retarded persons vary depending upon the level of retardation. The terms currently used to describe the various degrees of mental retardation are mild, moderate, severe and profound.

Even though the classification has been done but the definition given by AAMR on mental retardation no longer labels the individuals according to the

intelligence quotient. The new trend and the categories of mild, moderate, severe profound looks at the intensity and pattern of changing supports needed by an individual over a life time according to which it can be categorized under four major levels namely-

- (a) Intermittent support - Support on "as needed basis" that is support which is not needed on a continuous daily basis
- (b) Limited support - Support over a limited time span such as during transition period i.e. from adolescence to adulthood or from school to college.
- (c) Extensive support - support needed on daily basis, for doing his activities of daily living but not in all walks of life.
- (d) Pervasive support - Constant support that may include life sustaining measures, daily support across all life areas.

#### **1.4.2. Characteristics of person with mental retardation**

As per the classification and as per the standards given by WHO (1989) a person with mental retardation can be identified as per following criteria - if he / she -

- (a) Does not learn any new activities as easily as other people.
- (b) Have problems in his/her physical activities e.g.- sitting, standing, etc.
- (c) Is slow in responding to what others say and to what happens around him / her.
- (d) Is not a position to understand what he/she sees, hears, touches, smells and tastes.
- (e) May not be able to express his/her needs or feelings in the way that other people can understand.
- (f) May not be able to think clearly i.e. may not understand the difference between here/there, now/later.
- (g) May remember things only for a short time.
- (h) May not be able to pay attention to one person or to any one activity.
- (i) May have problems in controlling the feelings.
- (j) May have difficulty in making decisions.

Thus numerous characteristics contribute to the individual with mental retardation. However, no single individual may exhibit all of the characteristics reported. Some are peculiar to only certain individuals. Basically the characteristics can be classified into three major domains in particular -

**1.4.2.1 Characteristics of mentally retarded in health area -**

- (a) Tendency to have less physical stamina - unable to do physical activities which require a great deal of energy for any length of time.
- (b) More speech defects than among normal children.
- (c) Subject to more physical defects and illness.
- (d) Late in physical development - walking, talking, toilet training
- (e) Poor motor coordination.
- (f) Poor vision and hearing which may not be detected at any early age.
- (g) Poor teeth which contribute to malnutrition.
- (h) Generally speaking they are under par physically.

**1.4.2.2 Characteristics of mentally retarded in mental and motor areas -**

- (a) Very short memory span - repetitive teaching required.
- (b) Very limited written and spoken vocabulary.
- (c) Inability to concentrate as a result educational progress is very slow.
- (d) Poor eye-hand coordination.
- (e) Little ability to do abstract reasoning.
- (f) More success from concrete experiences than abstract
- (g) Poor reading ability
- (h) More adapt in hand skills
- (i) Poor mechanical ability
- (j) Tendency to have retarded and defective speech
- (k) Child too old for grade level
- (l) Stereotyped answers.
- (m) Often fail as cannot follow instructions.
- (n) Limited ability for self criticism
- (o) Inability to relate one situation to another and to anticipate consequences
- (p) Less and slower rate of development

- (q) Inability to follow directions or orders
- (r) Very short attention span
- (s) Lack of adaptive, associative power
- (t) Inability to see differences and similarities
- (u) Confused in face of new problems
- (v) Inability to work on complicated tasks
- (w) Inability to draw conclusions
- (x) Poor reasoning discrimination

#### **1.4.2.3 Characteristics of mentally retarded in social and emotional areas-**

- (a) Followers rather than leaders
- (b) Preferences for younger children as playmates
- (c) Occasionally antisocial
- (d) Frequent behaviour problems
- (e) No feeling of responsibility towards self or others
- (f) No sense of honour or pride
- (g) Critical attitude towards others
- (h) Tendency to imitate
- (i) Very easily discouraged
- (j) Immature behaviour
- (k) Cannot take failure constructively
- (l) Aggressive behaviour to gain attention
- (m) Ineffective attitude towards life
- (n) At times has defensive attitude especially when criticized
- (o) Awareness of not belonging, not wanted at home or school or by playmates
- (p) Inability to learn from experience - less capable of making social adjustment

#### **1.4.3 Classification as per IQ and specific characteristic -**

##### **1.4.3.1 Mild mental retardation (IQ between 50-70)**

Mild mental retardation is roughly equivalent to what is referred to educational category of 'educable'. This group constitutes largest segment i.e. about 85% of

those with disorder. Individuals with this level of mental retardation develop social and communication skills during the pre school years i.e. ages 0-5 years, have minimal impairments in sensory motor areas and often are not distinguishable from children without mental retardation until a later age. By their late teens they can acquire academic skills up to approximately sixth grade level. During their adult years, they usually achieve social and vocational skills adequate for minimum self support, but may need supervision, guidance and assistance. When under unusual social or economic stress with appropriate support, individuals with mild mental retardation can usually live successfully in the community, either independently or in supervised settings.

#### **1.4.3.2 Moderate mental retardation (IQ between 35 - 50) -**

Moderate mental retardation is roughly, equivalent to what is referred to as the educational category or "Trainable". This group constitutes about 10% of the entire population of people with mental retardation. Most of the individuals with this level of mental retardation acquire communication skills during early childhood years. They profit from vocational training and with moderate supervision, can attend to their personal care. They can also benefit from training in social and occupational skills but are unlikely to progress beyond the second grade level in academic subjects. They may learn to travel to familiar places. During adolescence, their difficulties in recognizing social conventions may interfere with peer relationships. In their adult years, the majority are able to perform unskilled or semiskilled work under supervision in sheltered workshops or in the general work force. They adapt to life in the community usually in supervised settings.

#### **1.4.3.3 Severe Mental Retardation (IQ between 20 - 35)-**

The group with the severe mental retardation constitutes 3 % to 4 % of individuals with mental retardation. During the early childhood years, they acquire little or no communicative speech. During the school period they may learn to talk and can be trained in elementary self skills. They profit to only a limited extent from instructions on pre academic subjects. In their adult years, they may be able to perform simple tasks in closely supervised setting. Most

adapt well to live in community, in group, homes or in their families, unless they have an associated handicap that requires specialized or other care.

#### **1.4.3.4 Profound mental retardation (IQ less than 20) -**

The group with profound mental retardation constitutes approximately 1% to 2% of people with mental retardation. Most individuals with this diagnosis have an identified neurological condition that accounts for their mental retardation. During the early childhood years, they display considerable impairments in sensorimotor functioning. Optimal development may occur in a highly structured environment with constant aid and supervision and individualized relationship with a care giver. Motor development and self care and communication skills may improve if appropriate training is provided. Some can perform simple tasks in closely supervised and sheltered settings.

### **1.5 CAUSES OF MENTAL RETARDATION**

Mental retardation is caused by number of factors which can be broadly grouped into prenatal, natal and post natal factors.

#### **1.5.1 Prenatal causes**

These are the causes which occur during three trimesters of pregnancy i.e. from conception till birth. They are -

- (a) Chromosomal Abnormalities - There are 23 pairs of chromosomes in the human cell. Now if there is some error in the 21st pair of chromosome, it would result in mental retardation and the condition is known as Down's Syndrome. In this type of syndrome the person has striking physical features such as slanting eyes, depressed nasal bridge, thick – short tongue, open mouth, short fingers with square palm.

There are many other syndromes like Apert's Syndrome, Leish - Nyhan Syndrome, Rett's syndrome etc which are caused due to some errors in the chromosomal structure.

- (b) Genetic disorders -

Defect in which are transmitted from the parent to the child leads to mental retardation. In this sometimes it is found that the parent may or may not

show any sign of such disorders but it occurs in the offspring. In this type of disorder there is a metabolic abnormality and a specific enzyme may be deficient or totally absent. This may result in accumulation of specific substance in the brain resulting in brain damage.

(c) Infections in expecting mothers -

Those infections which occur especially during the first trimester i.e. the first three months of pregnancy may damage the developing brain and cause mental retardation.

(d) Diseases in expecting mothers -

Some diseases like diabetes, high blood pressure, malnourished mother can damage the growing foetus. For e.g. if a mother is suffering from excess of thyroid i.e. hyperthyroidism then it affects the central nervous system which results in mental retardation in the child.

Also the foetus while inside requires all necessary ingredients for growth. Now in a malnourished mother the necessary ingredients are not obtained which would result in mental retardation in the child.

(e) Exposure to x-rays or other radiation and drugs -

This is one of the major causes in recent times due to which the infant born suffers from mental retardation. For e.g. - If the expecting mother is under the treatment for cancer then those rays would have an effect on the physical as well as mental development of the child.

Medicines taken for epilepsy, high blood pressure, for some common illness like malaria, typhoid etc, smoking, intake of alcohol during pregnancy may lead to mental retardation in the foetus.

(f) Traumatic experiences or accidents -

(g) Congenital defects -

These are the defects of the central nervous system where in the brain cells are not properly developed. For e.g. Hydrocephalus - here there is an excess of cerebrospinal fluid due to which there is no room left for the cells to grow and develop. Because of this fluid the head becomes large as compared to the normal head size as per the age.

The other condition is Microcephalus - here the brain cells are not properly developed due to which the head size remains smaller which would lead to mental retardation.

### 1.5.2 Natal causes -

These are the causes which occur at the time of delivery i.e. at the time of birth of an infant.

- (a) Premature birth -  
Due to some reason if a child is born before the due date then it would result into under development of the foetus which may then result into mental retardation.
- (b) Low birth weight -  
If the birth weight is less than the standard weight (2.5 kg ) of an infant it may result into mental retardation.
- (c) Birth Asphyxia -  
If the infant does not cry immediately after birth then there is a lack of oxygen reaching to his brain resulting in mental retardation.
- (d) Trauma or Injury to the head of the infant -  
Here there may be some injury in the brain which may have occurred due to some faulty methods of delivery like forcep or vacuum, resulting in mental retardation.
- (e) Prolonged labor -
- (f) Coiling of umbilical cord around the neck or other part of the body of the foetus.
- (g) Abnormal position of the foetus in the uterus-  
Due to this much time is taken for the delivery which would result in respiratory distress leading to mental retardation.
- (h) Severe Jaundice in the new born:

### 1.5.3 Post natal Causes

- (a) Malnourished child -  
The child is vulnerable to malnutrition during 12-18 weeks after birth during which period the multiplication of nerve cells is very active and it

continuous from birth till the end of 2nd year. So this is a very important period for the child and most cases of mental retardation due to malnourishment occurs during this period.

- (b) Infections in the child -  
Due to some or the other kind of infections in the brain the brain nerve gets affected resulting into mental retardation. The examples of infections are meningitis, encephalitis.
- (c) Epileptic seizures / convulsions -  
In the words of a lay man it is called fits due to which the brain cells gets damaged leading to mental retardation.
- (d) Injury to the brain -  
This may occur due to a fall or any accident or any traumatic condition which may result into brain damage leading to mental retardation.
- (e) Poisoning

#### 1.5.4 Other causes -

- (a) Hereditary
- (b) Mothers age
- (c) Consanguineous marriages
- (d) Teratogens / Environmental factors.

Particular causes are always unknown but due to condition and its symptom, there are no sure evidences.

## 1.6 PREVENTION OF MENTAL RETARDATION

Prevention refers to measures taken in preventing something else from occurring or taking place. Prevention of disability in the case of mental retardation, can take the form of a vaccine; social and financial support given to families where incidence of mental retardation is likely to be high; information to families; avoidance of marriages between close relatives. Prevention would also consist of intensive training of a down's syndrome to promote maximum development; prevention could enable mental retarded people to enter the work place to avoid lose of self-esteem.

The WHO, AMR, AAMD, ICD, DSMIV definition of mental retardation is related or linked to three levels of prevention; primary, secondary, and tertiary prevention is usually carried out by doctors and health professionals to prevent manifestation of disability, on abilities and benefiting the people in distinguishing the severity of disability. Tertiary prevention seeks to prevent social isolation, stigmatization or handicap to mitigate the impact or disability.

The message is that earlier a child's disability is recognized and treated, the better the outlook for the child and family. Hence, measures to prevent mental retardation should be taken as early as possible. This is based on the principle of early identification and intervention.

The PHC doctors have been oriented against the background of preventive measures.

#### **1.6.1 Prenatal Prevention**

Inadequate prenatal care has been linked in prematurity and low birth weight which is in turn linked in mental retardation. Prenatal care that will guard the foetus against damage from material illness and infections and other dangers should be assured for every pregnant woman from the start of the pregnancy.

The pregnant woman is advised.

(i) To go for regular antenatal check ups for early detection of abnormalities, illness and infections so that prompt treatment and good management plan for delivery.

(ii) To maintain good nutrition status : Poor nutrition for both the baby and the mother is linked to impaired brain development and retardation; Malnutrition in the mother can give rise to low birth weight baby who in turn is high risk to mental retardation.

Therefore, antenatal programmes and child health programmes should ensure good nutrition and health to both the mother and the child.

A pregnant woman has to take sufficient amount of nutritious foods to maintain her health and also supply nutrients to growing foetus. Thus the food

requirements of a pregnant woman increase greatly. The diet should contain adequate amounts of proteins, carbohydrates, fats and minerals to supply the required calories and body building substances. Therefore, the diet should contain adequate amount of cereals, pulses, and fresh foods. Lack of these nutrients can give rise to anemia and other nutritional deficiencies. Iron and vitamin supplements may be given in the form of tablets, or injections; to avoid deficiency status in the second trimester of pregnancy.

(iii) To get preliminary investigations done (like blood and urine), prenatal diagnosis is essential. This encompasses a number of procedures designed to assess the condition of the unborn baby

(a) Ultra Sonograph

(b) Radiography

(c) Amniocentesis - to know chromosomal abnormalities

- Enzyme deficiencies

- Metabolic disorders

- Sex of the baby

If these tests prove that the foetus is normal the parents can be reassured. If found to be abnormal, the parents are given options for medical termination / treatment which will prevent the occurrence of a child with mental retardation.

Treatment of illness and timely immunization are as follows:

a) To get prompt treatment for illnesses and infections;

b) To get immunization at appropriate time: During the 7th, 8th and 9th months of pregnancy a pregnant woman should take injection. Tetanus toxin (TT) to avoid the tetanus infection during delivery and immediate post-natal period. It also gives immunity to the foetus and the new born child as the maternal antibodies pass to the foetus via the placenta.

### 1.6.2 Natal Prevention

Delivery should be conducted under hygienic conditions by a trained person.

Unnecessary meddling of the foetus should be avoided. The baby should be handled gently with care. The umbilical cord should be cut with a sterile knife.

In cases of difficult or abnormal labor or delivery, the woman should be taken to the nearby hospital without delay and ensure the delivery.

Good natal care is an important factor in prevention of mental retardation. Pregnant woman should be advised to get delivery conducted by trained personnel at home under hygienic conditions or at health centre. For all complicated pregnancies and labors the delivery should be conducted at hospital in order to bring down injury and infection which are the causative agents of mental retardation in child. At present survival rate of babies with especially the premature and low birth weight are possible with good natal care. They also survive as normal healthy babies thus bringing down the percentage of mentally retarded cases. All high risk infants should be well taken care off and should have a long term follow- up for early detection of handicapping conditions and delays in development.

### **1.6.3 Postnatal Prevention**

- (a) Neonatal screening: Some of the conditions of mental retardation like PKU and Hypothyroidism can be prevented from progressing into mental retardation by early treatment. Therefore, it is highly important to detect these at the earliest. This is possible with simple tests of blood and urine examination in a new born and treated immediately. Other metabolic errors also can be detected during neonatal screening and parents counseled regarding mode of inheritance and recurrence risks in order to avoid further occurrence of mental retardation due to these cause.
- (b) High risk infants care and follow up: Intensive care should be immediately available to babies who are high risk for mental retardation such as prematurity, low birth weight, birth asphyxia and babies born of prolonged, difficult labor and other complications. There is a need for well equipped neonatal intensive care units to cater to such services. Even after discharge from hospitals such babies need a close follow up to identify delays and abnormalities in development. This helps us in giving the earliest interventions and corrections which reduce the severity of handicap.

## 1.7 EARLY STIMULATION AND INTERVENTION PROGRAMMES

These programmes are for children with handicap or developmental delays. The two main components of these programmes are:

- (i) Directly stimulating the child with enriched environment to enhance development.
- (ii) Teaching the parents the techniques that can be used at home and helping them to have better parenthood.

To cover the child's health, nutritional, psychological and educational needs these programmes prevent further complication and reduce the severity of handicap.

- (c) Immunization Mental retardation caused by infections like: Diphtheria, Tetanus, Whooping Cough, Typhoid, Measles and Poliomyelitis and Rubella can be prevented by active immunization programmes. Immunization offers protection against the specific viral and bacterial infections.

Rh- incompatibility which is one of the causes of mental retardation can be prevented by giving immunoglobulin to the Rh negative mother immediately following the birth of her first Rh positive baby.

Early identification and prompt and appropriate treatment of infections lessens the complications. Proper environmental and personal hygiene, clean water supply, destruction of insects and animals which carry infections all help in reducing the occurrence of infections and thereby the occurrence of mental retardation as a sequel to infections.

- (d) Prevention of accidents and poisoning: Accidents and poisoning can injure the brain and cause irreversible damage and mental retardation. This is one of the preventable causes of mental retardation. People should be made aware of the potential causes of accidents and poisoning and methods of avoiding them through various public awareness programmes. Safety

principles, safety equipment and safety requirements should be made known to general public.

More rigorous identification and eradication of toxic substances in the environment, such as lead paint, airborne lead or water borne mercury compounds should be pursued. Screening programmes to identify the affected children should be emphasized upon for early treatment and prevention of mental retardation.

- (e) Alcohol, drugs, teratogens: These form another major cause of retardation as they have adverse effect on the developing foetus. Therefore these have to be avoided specially during pregnancy to prevent the occurrence of mental retardation in babies.
- (d) Nutrition: As mentioned earlier, poor nutrition for both the baby and the mother is linked to impaired brain development and retardation. Malnutrition in the mother can give rise to low birth weight baby who in turn is a high risk infant to mental retardation. Therefore, antenatal programmes and child health programmes should ensure good nutrition and health to both the mother and child.
- (e) Family planning: The best age for the mother is between 20 and 30 years. Having child when younger or older increases the risk of having a mentally retarded child. Pregnancies at very short intervals drawing on the health of the mother leads to complications. Therefore, the family size should be restricted and children should be properly spaced.

Dissemination of the information regarding prevention of mental retardation to the general public and the various professionals involved to create awareness and motivation to work towards the goal of prevention of mental retardation is absolutely essential.

Having known the prenatal and postnatal preventive care what has been done so far in our country to rise to the level and take care that incidence of mental retardation and its consequent effects are prevented to occur.

### **Primary Health Centres**

The Primary Health Centres are in rural areas of the country. The maternal and child health services which are in operation, as well as certain Non-Governmental Organizations have taken up the cause. In fact, PHC doctors, paramedical Personnel have been oriented almost to a near total target by RCI initiative and programme which includes identification and prevention as the primary objective for mental retardation and for all disabilities as well.

Some of the common preventive measures being followed include the following:

- The pregnant Mother is not exposed to X-ray in the first trimester of pregnancy.
- The maternal age be restricted to 18-35
- Rh factor be controlled through blood transfusion.
- Compulsory testing of blood and urine after birth to take care of recessive gene disorder by appropriate dietary control.
- Avoidance of consanguineous marriages.
- Avoidance of lead paints, high temperature, malnutrition, maternal use of intoxication, drugs, etc.
- The pregnant mother should be immunized against diphtheria, whooping cough, tetanus, polio, measles, and TB during the first year of birth.
- Genetic counseling be provided to parents having mentally retarded child.

In India, of late, preventive activities have received priority attention beside medical preventives. Three steps are being taken from the view point of public education (i) dissemination of available knowledge on ecology of mental retarded through public media like newspapers, radio, television, (ii) to bring together the parents and interested public to mobilize their efforts to canalize funds and family, and (iii) strengthening national level organizations to coordinate and disseminate the efforts.

## **1.8 ASSOCIATED PROBLEMS IN MENTAL RETARDATION**

In addition to the deficits in intelligence and adaptive behaviour, some persons with mental retardation have medical problems or associated problems. Some of the most common medical problems encountered in persons with mental retardation are epilepsy, attention deficit hyperactivity disorder, physical problems, nutritional disorders and psychiatric problems such as autism, psychosis and neurotic disturbances.

### **(1) Epilepsy**

About 40% of persons with mental retardation have convulsion of one type or the other. The convulsions vary in their frequency, duration and type depending upon the nature of brain damage. Fits are common in persons with severe and profound mental retardation than in those with mild or moderate mental retardation.

### **(2) Nutritional Disorders**

Brian has active growth during the first trimester of pregnancy and from birth till the end of 2 years after birth.

Malnutrition especially during the first two years of life can seriously impair brain development. Continuing the child on breast milk alone beyond 6 months and adding supplementary food restricts the intake of protein, fats, vitamins and minerals leading on to growth retardation.

Some children with mental retardation, because of their inability to chew and swallow are not given the required quantity of food and this further leads on to delay in growth. Some of the common nutritional disorders are protein calorie malnutrition, deficiencies of vitamins belonging to A and B groups.

### **(3) Attention Deficit Hyperactivity Disorder (ADHD)**

Some of the children with mental retardation exhibit hyperkinetic behaviour and this generally occurs in children with brain damage.

The features of ADHD are, being excessively active, distractible, having poor attention span, restlessness, lack of inhibition and poorly coordinated activities.

They are impulsive, aggressive and show fluctuation in mood. Presence of hyperkinetic behaviour can be brought down with medication.

**(4) Psychiatric Disturbances**

Some of the psychiatric disturbances in mental retardation are autistic behaviour, psychotic states such as schizophrenia, mania and depression and neurotic states such as anxiety neurosis and hysterical neurosis. Diagnosis of mental illness in mental retardation needs an expert, detailed psychiatric evaluation. In case the following symptoms are noticed in a person with mental retardation, psychiatrist may be contacted.

Remaining aloof for a long period of time, unprovoked aggressive behaviour, state of extreme depression of mood.

## **1.9 BEHAVIOUR**

Behaviour is an aspect of an organism's functioning including overt behaviour, thought, emotions and physiological activity. These functions may or may not be directly observable. Behaviour in its broader sense has the influence of both the heredity and the environmental aspects. But a behavioural scientist who is engaged in the task of modifying or restructuring the behaviour of another person basically deals with the environmental factors influencing behaviour. Thus behaviour is that portion of the organism's interaction with its environment that is characterized by detectable displacements in space through time of some part of the organism and that results in a measurable change in at least one aspect of the environment. (Johnston and Penny Pasker, 1980). This means, behaviour is the relation between an organism and its environment. In short anything or any activity that a person does which is observable and measurable can be termed as behaviour. Behaviour is a neuro-sensory manifestation of individual.

(1) **Behaviour is observable and measurable** - that is behaviour is an action i.e. stimulus and response of a person, which others can observe (by sight, hearing) and measure (how many times)

(2) **Behaviour is learnt** - which means why or how people learn certain behaviours. It is because when people behave, something happens after it or before it happens. Now if people 'like' what happens after behave, they are more likely to behave that way in future.

Same is the case when some thing happens 'before' the behaviour occurs which would result in a particular kind of behaviour and which would sustain in future as well.

(3) All kinds of behaviour whether good or bad can be learnt. The reason is if through some kind of bad behaviour, the necessities of a person are met then he or she would learn that behaviour though it being a bad behaviour and for getting a desired thing, the behaviour would occur again.

## **1.10 CLASSIFICATION OF BEHAVIOUR**

All behaviour in children with mental retardation can be divided into two categories

- (a) Skill behaviour
- (b) Problem behaviours

### **1.10.1 Skill Behaviour**

Skill behaviours are those behaviours which would help the child become independent in his or her potentials.

All the children with mental retardation show deficit in some skill behaviours. This means that they perform poorly certain tasks which normal children of their age can do easily. Now what a given child with mental retardation can do or cannot do depends on various factors such as severity of mental retardation, opportunity provided for training, associated conditions etc. For the

convenience of easy understanding, the various skill behaviour can be classified into the following categories or domains –

**(a) Motor**

This involves running, skipping, jumping, walking up and down the stairs, riding a bicycle, unscrewing, pouring liquid from one container to another etc. Meaning that all the activities which require hands and legs functioning can be put under this category.

**(b) Activities of daily living (ADL)**

A child requires being independent in all those activities which he needs to perform daily. These activities include -

- (i) Eating - Drinking from cup or a glass, eating with own hands etc.
- (ii) Toileting - Indicates toilet needs, washes self, going on his own.
- (iii) Brushing - Brushing teeth, spitting, rinsing.
- (iv) Bathing - Pouring water, applying soap, drying with a towel.
- (v) Dressing - Wearing pant, shirt on his own, undressing, buttoning and unbuttoning, wearing shoes, socks, taking them off.
- (vi) Grooming - Applying powder, combing, clipping nails, etc.

**(c) Language - Language can further be categorized into,**

**(i) Receptive Language**

This means understanding and then putting into action. It includes pointing to pictures in a book, arranging pictures after listening to a story etc.

**(ii) Expressive Language**

As the name suggests, expressing means verbally speaking out. It may also include gestures and written. Thus expression mean to bring out our feelings, thoughts and ideas through either verbal communication, through gestures or written. It may include using two word phrases, naming common objects in use etc.

**(d) Reading and writing -**

As the child grows, he needs to develop reading and writing skills as it is helpful to him in his present life as well as for his future. Development

of this skill includes reading words, reading own name, scribbling with pencil or chalk, writing own name, address, etc.

(e) Number and time -

Along with reading and writing skills the child also develops number and time concept which includes rote counting till five, meaningful counting, addition of single digit numbers, telling the time by hours and minutes, names and identifies days of the week and months of the year.

(f) Domestic and social -

This skill involves doing house hold chores like washing utensils, clothes, greeting people, learning to use etiquettes like please, thank you, etc.

(g) Prevocational and money -

Developing this skill helps the child to become ready for the future endowments. It involves recognizing the values of coins, performing money transactions.

### 1.10.2 Problem Behaviours -

Many times, children with mental retardation show behaviours that are considered as problematic because of the harm or inconvenience they cause others, or to the child himself. The presence of problem behaviours in children puts great strain on teachers. Besides, they may interfere with learning in school or other settings. These problems behaviours could be due to number of reasons.

Behaviour can be termed as problem behaviour -

- (a) When the behaviour is dangerous to self or to others.
- (b) When the behaviour is inappropriate for the age of the child or for his developmental level.
- (c) When the behaviour interferers with learning.
- (d) When the behaviour is socially deviant.

As stated earlier problem behaviours could be due to number of reasons. They being,

- (a) Lack of communication skills, cognitive skills or problems solving skills.

- (b) It may also be due to wrong handling by people in the environment of the child.
- (c) Due to attention seeking.
- (d) Due to self stimulatory factors.
- (e) Due to skill deficit factors.
- (f) In order to escape.
- (g) Due to some tangible factors.

To summarize problem behaviours occurs due to lack of skills. This happens because as per the definition of mental retardation, a child having mental retardation has skill deficits and in order to overcome he indulges into problem behaviour.

Many a times it so happens that people may not be aware about the problems which are present in the child or the condition of the child, as a result they may handle the child as per their own wishes and desires due to which problem behaviours occur.

Children are generally great attention seekers. They may indulge into problem behaviours to seek attention of their elders or their teachers. For e.g., if the problem behaviour tends to occur more when one is not paying attention to the child and stops when one attends the child then it means that it is an attention seeking behaviour.

Sometimes children learn to indulge in repetitive behaviours which are mostly observed in severe and profound mental retardation. Usually self stimulatory behaviours increase when these children are left alone un-stimulated or under stimulated or at times over-stimulated in their environment, when such children are engaged in a useful activity these self stimulatory behaviours tend to reduce.

Some problem behaviours in children occur "due to skill deficits". When a child has not learnt to behave or respond in appropriate ways, his problem behaviour may be an indirect expression of this underlying skill deficit. For e.g. - A child with poor communication skills, who does not know to say 'give me the ball'

learns to get the ball from other child by snatching it. In such cases, teaching and building up appropriate skills becomes an important task to replace such problem behaviours.

Many times children may indulge in problem behaviours in order to escape a difficult situation. It may be to get away from specific persons or activities they dislike. For e.g. - Whenever the teachers gives a task to a child to perform he may start crying after which the teacher may withdraw that activity. Hence, the child will gradually learn to cry in-order to get away from the activity. If the Child's problem behaviour increases in the presence of demands and stops when the demands are removed, it suggests that the child is indulging in the problem behaviour to escape certain demands of situations.

Some problem behaviours in children may be actually fetching them material or "tangible rewards" For e.g. - if a teacher gives a toy to a crying child, he may temporarily stop crying. Thus if the problem behaviour stops when a tangible reward is presented the function of that problem behaviour could be tangible.

#### **Kinds of problems behaviours -**

There are in all 130 problems behaviours listed but for the convenience of easy understanding, the various problem behaviours can be broadly classified into ten major domains as identified by R. Peshawaria (1992). Basic mental retardation, NIMH. They being -

##### **(a) Violent and Destructive behaviours -**

Violent types of behaviours are categorized by physical violence, pushing, pinching, spitting, pulling hair or ear or body parts of others, picking with sharp objects or kicking. Similarly destructive behaviours are those wherein the child tears books, clothes, break things, objects, damages toys and other possessions, damages furniture, personal belongings.

##### **(b) Temper Tantrums -**

In order to get something the child performs different activities which are quiet odd and they are known as temper tantrums. These being rolling on the floor, screaming, crying excessively, etc.

**(c) Misbehaviour with others / disruptive behaviour -**

Here the child snatches objects from others, does not allow any one to carry on with their activities makes loud noise when others are working, takes others possessions without permission, screams unnecessarily, spits on others, etc.

**(d) Self Injurious behaviours -**

These type of problem behaviours are very dangerous as here the child is engaged in injuring his own self to such an extent that it hurts and harms the child to little or great extent. Self injurious behaviours includes banging head, biting self, cutting to the extend that he / she bleeds, pulling own hair, beating self, putting objects into eyes, nose, scratching self, pulling skin, etc.

**(e) Répetitive or stereotyped behaviours -**

As the name suggest in this type of behaviour the child is engaged in performing same kind of activity over and over again for a long period of time example, head nodding, teeth grinding, swinging round and round, jumping, rocking body, shaking part of the body, etc.

**(f) Odd behaviours -**

These are the behaviours which stands out from rest of others. In these kinds of behaviours the child laughs unnecessarily, talks to self loudly, makes peculiar and unpleasant sounds, mimics words (echolalia), mimics gestures (echopraxia), plays with unacceptable objects, touches others unnecessarily, collects rubbish, etc.

**(g) Hyperactivity -**

These kinds of behaviours are characterized by lack of concentration, less span of attention as per his age, talking excessively and many a times unnecessarily going or running away from school or home, messing the place, running about the place, inability to sit at one place for required time, not completing the task at hand, etc.

**(h) Rebellious behaviour -**

It is characterized by disobedience in which the child refuses to obey or follow instructions, breaks rules, refuses to participate in regular activities, refuses to perform regular activities on time, does opposite of what is regulated.

**(i) Anti social behaviour -**

Anti social behaviours are those behaviours which are against the norms put forth by the society. It involves stealing, cheating in games, lying, twisting the truth, blaming others, making obscene gesture, undressing in front of others, using abusive language.

**(j) Fears -**

If involves being scared of some person, objects, places, animals, etc.

There is one more category of problem behaviour not included in the list of above mentioned domains. It is –

**(k) Withdrawal behaviours -**

In this type of behaviours the child withdraws himself and goes into a shell of his own and it would become difficult for others to bring the child out of his shell. Here he shows behavioural characteristics like sitting or standing without doing any activity for a long period of time, has no eye contact, does not talk spontaneously to others, stares blankly, does not reply to the questions.

**1.10.3 Techniques of increasing desirable / skill behaviours -**

Special educators and psychologists have to teach behaviours to children with mental retardation which they might never have performed before. If the professionals wait for target behaviours to occur on their own, then they may have to wait for a long time. Most behaviours in children with mental retardation may occur only after a long time or may not occur at all. But there behaviours being necessary for the survival of the child, need to be developed. There are many different techniques for enhancing these desirable or skill behaviours. These techniques being-

**(i) Shaping -**

It is a technique of increasing desirable behaviour which involves the system of giving rewards in step by step fashion even to minor, but correct approximations of behaviour towards a behavioural objective. For example, if a child is unable to say 'water' and the closest sound he can make is "wa-wa", then shaping may be used to change "wa-wa" through a sequence of steps into 'watah' and finally 'water'.

**Steps in shaping process -**

1. Select the target behaviour.
2. Select the initial behaviour that the child presently performs and that resembles the target behaviour.
3. Select a strong reward.
4. Reward the initial behaviour till it occurs frequently.
5. Reward successive approximations of the target behaviour each time it occurs.
6. Reward the target behaviour each time it occur.
7. Reward the target behaviour now and then.

**(ii) Prompting -**

Almost everyone require guidance, instructions, assistance or help while learning an activity or a skill. In case of children with mental retardation, they need more help or assistance than normal children of their own age. Thus prompting is a process of giving active assistance to help children learn a specific target behaviour.

Prompting can further be classified into -

**(a) Physical prompt -**

These kinds of prompts are usually needed in the beginning of teaching a new behaviour. In this kind of prompt the teacher is physically very close the child in order to provide physical help. It involves holding the hand of a child or other body parts to teach him specific behaviours.

**(b) Verbal prompt -**

Some children may need only verbal statement for performing any activity. In using verbal prompt, the teacher needs to give verbal instructions. Here, there is

no direct physical contact between the child and the teacher but just the instructions given by the teacher.

(c) Clueing -

These are the verbal or gestural hints given in order to help the child perform certain behaviours. Sometimes clues can be in the form of reminders or questions.

Towards the end of teaching a behaviour, the professional usually reduces prompts where by the child conducts the activity independently.

**Guidelines for using prompts –**

1. Make sure to secure child's attention before using prompts.
2. Always provide the prompts only before the child performs the target behaviours.
3. Use prompts only when the child is unable to perform the desired target behaviour in the manner it should be done.
4. Always make prompts as short as possible.
5. Select at natural prompts as possible.
6. Select prompts that will quickly lead towards independence.
7. Whenever necessary combine use of different prompts to achieve maximum effectiveness.
8. Fade prompts as soon as possible.

(iii) Chaining -

Many a times, complex behaviour can be taught to children with mental retardation if they are broken down into small and simple steps. These steps then can be sequentially linked with each other to form a chain. Thus when each step is taught separately and sequentially until the whole behaviour is learned, this methods is called chaining.

Chaining method can be used in two ways -

(a) Forwarding chaining -

When the first step is taught first, followed by the later steps then it is called forward chaining.

(b) Backward chaining -

When the last step is taught first, and the first step is taught last then it is called backward chaining.

**Guidelines for using chaining –**

1. Describe each step in chain that is to be followed so as to reach the target behaviour.
2. Use rewards to strengthen the behaviour at each step.
3. Preferable use of backward chaining procedures when teaching children with mental retardation.
4. Always teach the child to perform as per the steps listed.
5. Move to the next step only after the child has learned the preceding step.

(iv) Modeling and Imitation -

Either knowingly or unknowingly, most of us acquire much behaviour through modeling and imitation. Children learn much behaviour by observing others deliberately or by chance. They imitate persons who are considered important in their view. Modeling thus is a method of teaching by demonstration, wherein the professional shows how a specific behaviour is to be performed. Modeling involves creating a situation in which the child naturally observes other children indulging in target behaviours and getting rewards for that behaviour.

**Guidelines for using prompts –**

1. Make sure to get the child's attention on every detail of the model, possibly even by using verbal prompts.
2. Choose a model that is appropriate for age, sex for the child. Child usually identify better with the models of their age and sex.
3. Provide opportunity for the child to observe the model's behaviour before he can imitate the same.
4. Demonstrate each part of the activity or behaviour to be imitated slowly and clearly so as the child to model it.
5. Model and teach each part of the step separately until the child learns to perform it.
6. Before using modeling, ascertain that the child is mentally and intellectually ready to imitate.

(v) Fading -

While using prompts for teaching it is important to gradually decrease the amount of assistant or help being given to the child as the ultimate goal is to make the child independent in performing certain tasks. So the process of gradual decrease in the active assistance from teacher towards active or independent performance by the child is called fading.

Towards the end of teaching a behaviour, the professional usually reduces prompts where by the child conducts the activity independently.

**Guidelines for using fading –**

1. Find out the current level of the child's performance.
2. Make sure that fading may not create any hindrance in the child performance.
3. Make use of fading, gradually i.e. do not stop giving assistance immediately but reduce it step by step.

(vi) Generalization -

Many a times children need to learn behaviours in one setting and perform that in another setting. The process by which a behaviour learnt in one situation is transferred to be performed in another similar situation is called generalization.

The main purpose of teaching behaviours to children with mental retardation is to make them perform the same behaviours else where and every where as and when required. In most normal, children, generalization of behaviours are naturally to other settings without any difficulty. However, children with mental retardation show great difficulty in using behaviours learnt in one situation to another.

Further more a child with mental retardation may perform a task in the presence of a particular teacher but may not do so in the presence of other teachers or persons. Hence, it should be planned and programmed in such a way that generalization takes place across persons or situations.

**Guidelines for implementing effective generalization :**

1. Teach the specific behavioural objective in as natural setting as possible & while giving examples, choose examples which are as close to the natural requirements for that behaviour.
2. Do not restrict teaching to only classroom or school situation. Wherever possible take them out.
3. Even in case, specific behaviours are being taught in the classroom / school rather than in their natural settings, try and stimulate them near to the actual settings.

(vii) Reinforcement and the schedules of reinforcement -

At times children with mental retardation make attempts to learn on their own. But unfortunately, often their efforts do not result in success and pleasure by doing things on their own, but it lead to failures and disappointments. As their efforts do not lead to pleasurable consequences the chances of their making future efforts to learn get reduced. As a result this may not facilitate learning new skills or activities. Thus for enhancing future efforts, and facilitating learning new skills, rewards or technique of reinforcement is used. Thus the

event that happens after a behaviour which makes that behaviour to occur again in future is called 'reward' and the technique is known as reinforcement.

All our behaviour which we tend to repeat are a result of rewards. If a particular behaviour is not followed by rewards we would not perform that behaviour again. Thus rewards are important means of changing behaviours whether desirable or undesirable in children.

It has generally been assumed that each response is followed by a consequence. However, an organism does not have to be reinforced or punished each time when it performs a behaviour. Most people are not reinforced continually. To make the rewarding system more effective and responsible, different schedules of reinforcement may be used. It is a programme determining when the subject will be reinforced according to time (interval), number (ratio) of responses one makes. That is, it helps to regulate the award of reinforcement either in a determined (fixed) manner or in an inconsistent (variable) manner. The schedules

are as follows –

(i) Fixed Interval Schedule -

A reinforcement schedule in which a reinforcers is delivered after a specified interval of time. For example, rewarding a child (who is given a task of writing) every three minutes for writing appropriately.

(ii) Variable Interval Schedule -

Reinforcement scheduled in which a reinforcers is delivered after a predetermined but varying interval of time. For example, rewarding a child (who is given task of writing) at different times, like, after one minute, then after three minutes, then after two minutes and so on.

(iii) Fixed Ratio Schedule -

A reinforcement schedule in which a reward is delivered after a predetermined number of responses has occurred. For example, rewarding a child (who is given task of folding paper for cover making) at every fifth cover if folded appropriately.

(iv) Variable Ratio Schedule -

A reinforcement schedule in which a reinforcers is delivered after a predetermined but variable number of responses. For example, rewarding a child (who is given the task of folding paper for cover making) for making the second cover, then for making third cover, sixth cover and so on.

While skill training a child with mental retardation, continuous reinforcement may be required in the beginning. This can be progressively shifted to variable model, since variable model of reinforcement has a better overall rate of response. And it may become easy to wean off (fading) the delivery of reinforcement from this mode.

**1.10.4 Guidelines for teaching children with mental retardation -**

Irrespective of the specific behavioural objectives or teaching techniques one may adopt, the following guidelines are helpful for teaching children with mental retardation -

(i) Easy to Difficult -

Always plan and proceed to teach these children from simple to complex tasks. The reason is that, when we teach simple steps first, the child is bound to get success which would create interest and motivation in the child to learn more difficult tasks.

(ii) Familiar to unfamiliar -

Always teach children with mental retardation from a step which they know and then proceed to teach the tasks that they do not know.

(iii) Concrete to Abstract -

Most children with mental retardation show difficulty in learning or understanding abstract concepts. It is easy for them to relate and learn actual or concrete events or happenings.

(iv) Whole to part (General to specific) -

Always introduce concepts or tasks to children with mental retardation as a whole first and then lead them to their individual parts.

### **1.10.5 Techniques of decreasing undesirable / problem behaviour (Behaviour Modification)-**

The modification of a persons behaviour comes into question when an individual either wants a qualitative change in the behaviour or he behaves in such a way that it is not in tune with the criteria or expectation of the environment in which he lives. Children with mental retardation by the virtue of their condition require assistance in both increasing a desirable behaviour and decreasing an undesirable behaviour.

Mental retardation is a condition and not a disease, so it is not curable. It is a permanent damage to the brain and there is no medicine to cure mental retardation except for training. Mostly it has been observed that children with mental retardation exhibit problem behaviours as they have inability to express their ideas, feelings and thoughts. Those problem behaviours are harmful to the child as well as to others and so they need to be modified. Behaviour modification is a technique developed to alleviate the psychological disorder which focuses on changing behavioural problems by using different kind of techniques.

Behaviour modification thus involves behavioural methods to both increase the desirable behaviours and decrease the undesirable behaviours in children. These methods are based on learning principle from the field of psychology. It is based on the premise that all behaviours good or bad are learnt and hence can also be unlearned. It further believes that each individual is unique and so is his behaviour. Using this technology the behaviour in question is understood in the context of the environment in which it occurs. This approach is applicable to all the children with mental retardation irrespective of age, sex or degree of mental retardation. It is applicable in any setting may it be home, school or community. It can be used with groups individuals with mental retardation or on individual basis.

Further it can be stated that behaviour modification is used as a technique of habilitation.

Here, habilitation is a process through which persons born with certain impairment are helped to channelize their residual capacities to their maximum development so that he could live as normal life as possible. Here, special efforts designed to aid the disabled for training in different areas of development are made.

Many research studies have established the efficiency of behaviour modification techniques for maintaining a stable general mental health. It is used as a supporting therapeutic technique in addition to pharmacotherapy in the treatment of much mental illness. Behaviour modification plays a major role (with children with mental retardation) meeting the challenges of all skill training behaviour and in controlling the problematic or undesirable behaviour.

As an ethical and human right consideration for any special programme of training, teaching etc, designed for implementation, there is a necessity to take the help of parents of these children, take their consent and permission for the application of these techniques in writing. Parents have been found to benefit from training programme which help them to become better behaviour modifiers of their own children. Also it is a necessity to include parents in such programme as they are partners in education. They are made aware and if necessary, trained to bring consistency in responding to child's behaviour in specific and their development in general.

To summarize behaviour modification is the process of systematic application of the principles of learning theories. It is an approach which focuses on observable and measurable voluntary behaviour, it is concerned with methods of changing overt behaviour rather than on understanding subjective feelings, unconscious process or motivations. Defining it in one sentence it can be said that "Behaviour modification is changing human behaviour by the application of conditioning or other learning techniques." It mainly deals with the assumptions that behaviours are acquired through learning.

**\* Importance of managing problem behaviour by teachers -**

It is important for teachers, psychologists and parents to manage problem behaviours in children because -

- (i) Problem behaviour reduces the social acceptability of the child.
- (ii) Problem behaviour may harm the child.
- (iii) It may harm others.
- (iv) It may interfere in the child's learning process at home or school.
- (v) It may interfere in the learning process of other children at home or school.
- (vi) It may be socially unacceptable or inappropriate for the child's age.
- (vii) It may interfere in the performance of certain other behaviour already learnt by the child.

The management of specific problem behaviour in children involves a step by step approach known as behaviour management programme (BMP). The steps involved are -

**(I) Identification of problem behaviour -**

Any programme of behaviour management in children must begin with the identification of specific problem behaviours possessed by the child. There are many ways of identifying problem behaviours, such as by directly observing the child, interviewing parents, siblings, caretakers of the child, using a check list etc.

**(II) Statement of the problem behaviour -**

After identifying the behaviour problem in a child, the next step is to write them in an objective way. It is important to state each problem behaviour. Specially in observable and measurable terms; example instead of writing the child is naughty, we write the child does not sit at one place for more than fifteen minutes, the child pulls his hair.

**(III) Selection of the problem behaviour -**

After identifying the various problem behaviours in a child and stating them in observable and measurable terms, we need to select a specific problem

behaviour which we want to change first. This is known as prioritizing specific problem behaviours. Prefer selected one or two problem behaviours at a time for management so as to get success.

Guidelines for selecting and prioritizing problem behaviour:

1. Choose only one or two problem behaviour at a time for management.
2. Initially choose the problem behaviours which are easy to manage.
3. Choose problem behaviours which pose greater danger either to the child himself to others.
4. Choose problem behaviour which interfere most with the child's or others learning.
5. Choose problem behaviours only after considering its frequency, duration or severity.
6. Choose problem behaviours in consultation with parents when needed to be managed at home.

(IV) Identification of Rewards -

This is an important step in the development of behavior management programme. There are many ways of selecting appropriate rewards for children, such as by observing, asking the child directly, using reward preference check list, asking parents or caretakers, eliciting the child's rewards history.

After identifying the rewards, they must be arranged in a hierarchy from most preferred to least preferred.

(V) Recording Problem Behaviours -

Before starting to manage problem behaviours, we need to record them as they exist currently in the child. This is called "baseline recording". But the recording of problem behaviours need to continue even while implementing the intervention programme. So as to know the success of the techniques being implemented.

Reasons for recording problem behaviours:

There are many reasons as to why it becomes necessary to record problem behaviours in children with mental retardation. They being -

1. Recording helps us to decide whether a problem behaviour is serious enough for management.
2. It helps us to know whether any changes are taking place while implementing behaviour management programme.
3. Through recording we can convey the benefits of implementing behaviour management programme.
4. It helps us to know whether any changes needs to be made in the intervention programme.

There are many ways of recording -

A) Event recording -

In this type of recording one needs to record "The number of times specific problem behaviour occurs in a child.

For example – A child has a habit of hitting others. This behaviour can be recorded as –

Date	Time	Occurrence of hitting behaviour	Total
7.2.05	9 a.m. to 12 noon	III	3
8.2.05	9 a.m. to 12 noon	III I	6
9.2.05	9 a.m. to 12 noon	III	4
10.2.05	9 a.m. to 12 noon	III III	8
11.2.05	9 a.m. to 12 noon	III	5
12.2.05	9 a.m. to 12 noon	II	2
On an average the child hits 5 times a day.			

B) Duration Recording -

There are some problem behaviours which occur very little number of times. But, if they occur even once, they may continue for a long time. In such cases, it is best to use duration recording techniques. It involves "For how long" the problem behaviour is occurring in the child.

For example – A child has a habit of hitting others. This behaviour can be recorded as –

Date	Time	Occurrence of hitting behaviour	Total
7.2.05	9 a.m. to 12 noon	60 Mins	45 mins
8.2.05	9 a.m. to 12 noon	60 Mins	10 mins
9.2.05	9 a.m. to 12 noon	60 Mins	50 mins
10.2.05	9 a.m. to 12 noon	60 Mins	30 mins
11.2.05	9 a.m. to 12 noon	60 Mins	40 mins
12.2.05	9 a.m. to 12 noon	60 Mins	25 mins
On an average the child hits for about 33 mins out of 60 minutes.			

C) Interval Recording -

When problem behaviours occur for a specific number of times, we may use event recording techniques, when they occur over a specific period of time, we may use duration recording technique. But, many a times it may be difficult for the teacher to continuously observe and record the total frequency or duration of problem behaviour. So under such circumstances, the teacher need to set apart specific intervals of time to record whether the specific problem behaviour has occurred or not. This type of recording technique is called interval recording. Here if the problem behaviour has occurred many times or even once within that specified interval of time, it is recorded as one occurrence. For example if a child spits on others then through interval recording it can be recorded as –

Date	Time	Occurrence of spitting behaviour	Total
7.2.05	9.0 to 9.05	✓	4/6 intervals
	9.05 to 9.10	✓	
	9.10 to 9.15	✓	
	9.15 to 9.20	x	
	9.20 to 9.25	✓	
	9.25 to 9.30	x	
8.2.05	10.30 to 10.35	✓	4/6 intervals
	10.35 to 10.40	x	
	10.40 to 10.45	x	
	10.45 to 10.50	✓	
	10.50 to 10.55	✓	
	10.55 to 11.00	x	

It has to be continued for a whole week at different times and the occurrence or non-occurrence of problem behaviours is noted and the average is taken.

D) Time Sampling -

Another way of recording specific problem behaviour is to observe the child and record at specific points of time whether the problem behaviour has occurred or not. This is one of the most widely used and economical technique of recording which can be easily used in a group or a class room setting. For example, whenever child puts off the tape recorder?

While it is on - this behaviour can be recorded as -

Date	Time	Occurrence or non occurrence	Total
7.2.05	11.05	✓	4/6 times
	11.10	✓	
	11.15	x	
	11.20	✓	
	11.25	x	
	11.30	✓	
8.2.05	11.05	x	2/6 intervals
	11.10	x	
	11.15	✓	
	11.20	x	
	11.25	✓	
	11.30	x	

It has to be continued for a whole week at the same time every day and the occurrence and non occurrence of the problem behaviour is noted and the average is taken.

(VI) Functional Analysis of the Problem Behaviour -

Problem behaviour in children do not occur in vacuum. All behaviours both skill and problem occur because they serve a purpose for the individual. Even when two children show the same problem behaviour, the factors contributing to the problem behaviour may be different for each child. The management of

these behaviours for each child then must be individualized. There are a number of models available for analyzing behaviour problems. But the simplest and widely used is the A-B-C model.

- Here
- A - implies the 'before' factors known as behaviour.
  - B - the 'during' factors known as behaviour.
  - C - the 'after' factors known as consequences.

**\* Understanding 'Before' (Antecedent) factors -**

Analysis of antecedents controlling a problem behaviour include answering the following questions -

- (i) 'When' does the problem behaviour generally occur ?
- (ii) Are there any particular 'Times' when it occurs ? Example during morning, meal times, evening, etc.
- (iii) With 'whom' does the problem behaviour occur i.e. a specific person?
- (iv) 'Where' does it occur? i.e. any place or situations ?
- (v) 'Why' does it occur?

**\* Understanding 'During' (behaviour). Factors - Analysis of 'during' factors include the use of recording techniques to answer the questions -**

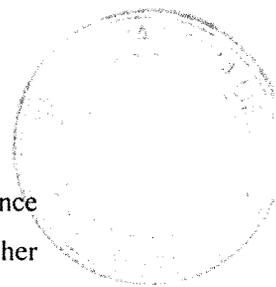
- (i) How many times does the problem behaviour occur?
- (ii) For how long does the problem behaviour occur?

**\* Understanding the 'After' (Consequence) factors - Analysis of 'After' factors include answering the questions -**

- (i) What is done to stop or reduce the problem behaviour?
- (ii) What effect does the problem behaviour have on the child?
- (iii) How is the child benefiting by indulging in the problem behaviour?

The analysis of consequences or after factors show that every behaviour of the child is linked with benefits. If there were no benefits the behaviour would cease to occur.

- (vii) Development and implementation of Behaviour Management Programme -



Based on a thorough understanding of antecedent and consequence factors controlling specific problem behaviours in children, the teacher must decide about the package programme consisting of various techniques to be used for managing problem behaviours.

(viii) Evaluation of Behavioural Management Programme -

With the effective use of all the steps in management of problem behaviours, one can succeed in changing the problem behaviours in children. Keeping regular records of the child's behaviour is the best way of evaluating if the particular problem behaviour/s they had targeted for change have indeed changed or not. Thus, it can be said that behaviours are very complex. At times, they may require an in depth analysis and understanding before managing or changing them.

**1.10.6 Behavioural Techniques in Problem Behaviour Management -**

Various behaviour techniques have been used successfully by teachers to manage behaviour problems of children individually on one to one basis and in classroom setting. There are number of techniques which are used but before using these techniques certain considerations are to be taken care of –

**General considerations for using Behaviour Modification Techniques :**

1. A single child may show a number of problem behaviours. The teacher must select the appropriate techniques for managing each of these behaviours.
2. Two or more children with mental retardation may show same problem behaviours, but the techniques used may be different.
3. There are no ready made packages to manage problem behaviours. But these problem behaviours need to be understood in the 'Before' and 'After' contexts.
4. Behaviour Management Programme is a long term undertaking, as on one hand it involves decreasing the problem behaviour and on the other hand increases the skill behaviour.

The most widely used techniques for modifying problem behaviours are -

**1. Changing the Antecedents (Before Factors)**

There are a number of antecedent factors, in the presence of which, behaviour problems may tend to occur. These factors may include particular settings,

situations, places, persons, times, specific demands placed on the child, difficulty levels, methods of instructions used by the teacher, sudden change in routine etc. If the links between any of these factors and the occurrence of problem behaviours is found then a simple avoidance, alternation or change of such factors which may be sufficient to manage problem behaviours. Through this technique problem behaviours can be managed by controlling or changing the antecedents i.e. the factors which leads to problem behaviours.

Sometimes it may not be possible to have continuous control over the antecedent (before) factors in the natural environment. Hence, other techniques of controlling the after factors (consequences) need to be applied in order to achieve long lasting results in the management of problem behaviours.

## **2. Extinction or Ignoring -**

Extinction means removal of rewards permanently following problem behaviour. This includes action like not looking at the child, not talking to the child, not having any physical contact with the child following the problem behaviour. Many a times, child indulges into problem behaviours in order to seek attention of teachers or others. At this instance one need to identify these attention seeking problem behaviours which may or may not be harmful to the child or others and ignore them for their effective management.

Extinction is a useful technique even for the management of such problem behaviours which are mediated by escape factors. For example - if a child cries in order to escape from any activity, then this behaviour needs to be ignored.

**Guidelines for implementing effective generalization :**

1. It is the best technique to decrease attention seeking behaviours.
2. Always use ignoring for specific attention seeking behaviours, in combination with ways of paying attention to the child's good or desirable behaviours.
3. When the technique of ignoring is used, there can be an initial increase in the problem behaviour, but they would gradually decrease.
4. Be consistent in the use of ignoring or extinction techniques.
5. While using extinction technique, be indifferent to the problem behaviours. Do not give any indication that one is aware about the misbehaviour.
6. Avoid giving lectures on how to behave well. This may only reward the child's problem behaviours by providing attention.
7. Never use extinction or ignoring for problem behaviours that are either dangerous to the child himself or to others.

**3. Time out -**

Some problem behaviours in children are so serious or harmful to themselves or others that they cannot be simply ignored. For such kinds of behaviours time out can be the most effective technique. It may be helpful in dealing with aggressive and destructive behaviours.

Time out method includes removing the child from the reward or the reward from the child for a particular period of time following problem behaviour. There are different types of time out. There are many ways for using the techniques of time out in the school settings.

These different techniques are -

- a) Place the child outside the sphere of learning activity for a specified period of time in the class. The child should be placed in a position, where he can see or hear the activity, but cannot participate in it.
- b) Insist the child to place his head on the desk in a head down position for a specified period of time.
- c) Remove the rewarding activity materials from the child for a specified period of time.
- d) Remove the child to an area in the class where in he can neither see nor participate in the activities of other children for a specified period of time. for example - in the corner of the classroom facing the wall.

- e) Seclude the child to an isolated room also known as the 'Time out room' wherein he can neither see, hear nor participate in the activities of other children for a specified period of time.

Steps in the use of seclusion Time Out -

1. When a child indulges in problem behaviour give a short statement describing what he did and just tell him that he must take a time out.
2. Be brief in all communications with the child. No communication with the child while he is in the time out area.
3. Place the child in the time out only for short period of not more than 2 - 5 minutes, after each occurrence of problem behaviour. Never remove the child from a time out while he is continuing to misbehaviours.
4. Use isolation in a time out room only when the child refuses to obey to minor forms of time out.
5. Use time out immediately if the child indulges into problem behaviour after coming out of the time out room.
6. Once the child is taken out of time out room he should not be given any special treatment.
7. If the child indulges in desirable behaviour after coming out from the time out, he should be rewarded.

**Guidelines for using Time Out Effectively :**

1. Time out is more effective in children who are outgoing, want to be in groups, like being attended by others.
2. It is less useful with children who are withdrawn, passive or like to stay alone.
3. Be consistent in the use of time out technique.
4. Make the child understand about time out technique and why they are being placed in time out.
5. The time out area must not have things that the child likes or any of the things that are harmful to the child.
6. Seclusion or Time out room has to be safe and well ventilated and one has to see that there is no provision for the child to lock himself from inside.
7. In a Time out room there has to be a 'one way mirror' or a 'magic eye' to keep an eye on the activities of the child.
8. Time out teaches the child what not to do and it does not teach what to do. So in order to teach the child what to do, time out has to be combined with order techniques of behaviour management.

**4. Physical Restraint -**

Physical Restraint involves restricting the physical movements of the child for some time following problem behaviour.

While indulging in some types of problem behaviours, a few children may completely lose control of themselves. They may even harm themselves by banging head, biting self etc. they may also harm others. At such times, it becomes necessary to physically stop the child from indulging in such behaviours. For this, we may hold his arms tightly; hold him in between the knees etc. For example - if the child continuously shakes his head then through physical restraint we can hold his head firmly in between the palms and help him stop his head movements.

Another form of physical restraint can be restricting the vision of the child for few seconds following the problem behaviour. Combine the use of physical restraint by repeatedly pairing it along with a loud verbal 'No.' Over a number of trials, this enables the child to stop the problem behaviour even to an empathetic 'No.'

**Guidelines for using mild Physical Restraint:**

1. Physical Restraint should be used only for brief periods of time following a problem behaviour preferably not more than 30 seconds.
2. It should never be attempted using ropes or chains which would result in physical injury to the child.
3. No verbal or gestural contact should be maintained with the child during the period of physical restraint.
4. To provide rewards to the child when behaves appropriately.

**5. Response Cost -**

Another way of decreasing problem behaviours in children is to take away the reward that the child has earned by performing specific good behaviours. In other words, this technique involves the child to pay a fine or the cost for indulging in problem behaviour by giving away something which he has earned from showing desirable behaviour.

Wherein the system of token economy is used in a school, teachers can arrange for the child to receive tokens on performing specific desirable behaviours and loose tokens for indulging in specific undesirable behaviours.

**Guidelines for using mild Response Cost :**

1. Specify and fix the rules for which specific problem behaviours, what privileges or rewards are to be lost.
2. Ensure that the child understand the relationship between the problem behaviour and his earned privileges or tokens being lost.
3. The fine or responses cost for indulging in specific problem behaviours must be established fairly and reasonably.
4. Avoid ragging, threatening or warning the child, before, during or after the application of response cost technique.
5. Person using this technique should not become emotionally involved or feel guilty that the child has lost a earned reward.
6. Be consistent in the use of response cost technique.
7. Use response cost techniques in combination with other ways of increasing desirable behaviour and decreasing undesirable behaviour.

#### **6. Restitution or over correction -**

The use of this technique will not only decrease problem behaviours in children, but also teach appropriate ways of behaving. When this technique is implemented, after the occurrence of a problem behaviour, the child is required to restore the disturbed situation to a state that is much better than what it was before the occurrence of the problem behaviour. The child also required to practice right ways of behaving.

For example - if the child throws his toys here and there in the class room then he is required to pick up any or all other toys or things lying in the class room and put them in appropriate places.

#### **Guidelines for effective use of over correction :**

1. This technique is useful only in children who can follow simple instructions.
2. If a child refuses to restore the damage done by him, he must be physically made to carry out the remaining steps till the over correction is completed.
3. Do not nag, talk, lecture or argue with the child when he is restoring the damage done by him.
4. Never reward the child after he has finished restoring the damage.
5. If a child seems to enjoy this technique, then it may mean he is simply finding ways to seek attention. In such cases, it is better to use alternate techniques of decreasing problem behaviours.

#### **7. Conveying Displeasure -**

In the use of this technique, one is required to give clear verbal commands expressing displeasure to a child following the occurrence of specific problem behaviour. This is also called as 'reprimands'.

**Guidelines for using Conveying Displeasure :**

1. Convey displeasure by telling the child exactly what behaviour is undesirable or inappropriate.
2. Convey displeasure immediately within seconds after the occurrence of the specific problem behaviours.
3. Be firm in tone and looks while conveying displeasure.
4. Encourage the child to behave appropriately by including a statement about expected appropriate behaviour while conveying what wrong was done which was not desirable.
5. Convey displeasure in a calm and a composed manner.
6. When it is over, do not keep on reminding the child about the past behaviour.
7. Avoid conveying displeasure in public that is in front of friends, peers etc.
8. Never disgrace or insult the child while conveying displeasure.
9. Do not forget to convey pleasure when the child shows desirable behaviour.

**8. Graduated Exposure for fears -**

Graduated exposure techniques are especially used to decrease fears in children and adults. It involves a step by step gradual exposing the child to a feared person, place, object or situation. For example - if a child has fear of dog, initially, let him pass by the dog from a long distance while his hand is being held and he feels secure. Then bring him closer to the dog while he gets an opportunity to observe a model with the dog. Eventually take him closer to the dog and if the dog is friendly, get him to touch it with his hands.

**Guidelines in the use of Graduated Exposure:**

1. Identify those specific fears in the child.
2. Construct a step by step hierarchy to the feared person, animal or thing as the case may be.
3. Expose the child in a step by step fashion along the hierarchy of fears that has been constructed.
4. Begin from the step where in the child shows least fear and gradually take the child along the other steps until he reaches the final objective.

### **9. Differential Reward Technique -**

This technique requires rewarding appropriate or non occurrence of problem behaviours in a planned way so as to decrease problem behaviours. It is also known as reinforcement or reward.

The event that happens after a behaviour which makes that behaviour to occur again in future is called 'reward'. All our behaviours which we tend to repeat are followed by rewards. If a particular behaviour is not followed by rewards that behaviour would not be performed again. Thus rewards are important means of changing behaviours in children. There are many kinds of rewards which can be categorized as primary and secondary rewards.

Primary rewards are mostly the eatables liked by the children.

Secondary rewards can further be classified into -

- (i) Material Rewards - These are the things or articles liked by the children.
- (ii) Social Rewards - They are verbal praises or signs of appreciation liked by children. They can be grouped as verbal - Good, excellent, well done and nonverbal - A smile, pat, hug, nod.
- (iii) Activity Rewards - They are actions or behaviours liked to be performed by children.
- (iv) Token Rewards - Token rewards are items though valueless in their own right, gain value through association with other things. They are given to children following the performance of desired target behaviour.
- (v) Privileges - They are special status or positions, which every child likes to occupy. The procedure of giving these rewards involves placing the child in any status or position which makes him feel important.

**Guidelines to select Appropriate Rewards :**

1. Observe the child's behaviour - look for the behaviour that the child indulges in most of the times or the activities he demands for again and again.
2. Ask the child directly - ask for his likes if the child can communicate freely.
3. Ask parents, caretakers or others who know the child and about his likes.
4. Use a Reward preference check list (as given in appendix).
5. Elicit the child's reward history - Find out about the things or demands made by the child earlier.
6. Choose rewards which are easily available and dispensable.
7. Use reward sampling techniques - when we do not know which reward works the best, place about five to six varieties of rewards and observe what the child is preferring.
8. Choose an appropriate reward - It must be appropriate to age, sex or other individual needs.
9. Choose a strong reward - It has to be strong enough to motivate the child to work for it.
10. Change of Rewards - watch out for any changes in the preferences of reward in children and accordingly make the changes.

After selecting the right reward, the best way to give it is -

1. Reward only the desirable behaviour. This has to be fixed before hand as to which behaviour is desirable and / or undesirable.
2. Reward clearly - Be clear and specific while rewarding.
3. Reward immediately - Always reward immediately after the occurrence of desirable behaviours.
4. Reward the desirable behaviour, each and every time it occurs.
5. Reward in appropriate amounts.
6. Combine the use of social rewards along with other kinds of reward.
7. Change the rewards.
8. Fading of rewards.

The differential rewards can be applied in various ways. They being -

1. Differential reward of opposite behaviours -  
In this method, the behaviours which are opposite to the problem behaviour and which needs to be modified are to be rewarded. For

example, if a child shows 'out of seat' behaviour, his 'on seat' behaviour needs to be rewarded.

2. Differential rewards of the other behaviour -

The method involves rewarding the child at the end of every pre-decided time interval during which targeted behaviour did not occur. For example - to bring down the 'out of seat' behaviour, it has to be planned that reward is immediately given at the end of each five minutes if the child did not get up from his seat. Thus according to these techniques the reward is given to the child for not showing the problem behaviour during a specific period of time.

3. Differential Reward period of time.

When the intension is just to reduce the intensity of misbehaviour and not to eliminate that behaviour completely, this technique is useful. For example - to reduce the intensity of screaming. If the child speaks too loudly, he is rewarded only when he speaks softly.

4. Differential reward of alternate behaviour -

In this method, other desirable behaviours are identified and rewards are being provided to these behaviours immediately. This technique is used along with other techniques for decreasing undesirable behaviours.

**10. Self Management Techniques -**

In case of children with mild mental retardation and at the upper age levels, these techniques are used which would make them more responsible to manage their own skill behaviours or problem behaviours. The use of these techniques will help in increase of self control in children whereby they would start taking the responsibility for their behaviours. There are many kinds of self management techniques that can be tried for better functioning in children. They are -

(i) Self observation -

Here the child needs to observe his own behaviours in the given situations in which they occur.

(ii) Self recording -

Children can be taught to keep records of their own skill behaviours and / or problem behaviours by maintaining a daily diary.

(iii) Self cueing -

The child must be trained not only in the techniques of self recording but also in giving cues or hints to ones own self whenever and wherever the behaviour needs to be increased or decreased.

(iv) Self reward technique -

Most children with mental retardation mainly depend on external rewards for learning or modifying their behaviours. Through this technique the children are directed to seek internal rewards for their behaviour in the form of self satisfaction, feeling of achievement or success on completion of specific tasks or even giving themselves reward for their better behaviours and better performances.

(v) Correspondence Training -

As a part of self management techniques, children with mild mental retardation can be trained to make positive self statements about how they would behave in specific situations.

(vi) Anger control technique -

Some children lying in borderline category can be trained to observe, identify, record and manage their own anger behaviours by using self management techniques.

They can be trained in following ways -

1. To help him to recognize that he is angry in a given situation.
2. Train him to properly verbalize his anger saying 'I am angry'.
3. Help him to discover the immediate reason for his anger.
4. Help him to find out the accompanying thoughts and feelings when he is angry.
5. Help the child to replace his angry thoughts or feelings with more adaptive one.
6. The child can be instructed to relax by performing deep breathing exercises or lying down on a bed for some time.

### **1.11 RATIONALE OF THE STUDY :**

Generally, it has been found that nearly 50 - 60 % of the children with mental retardation have behaviour problems. These problems arise because of poor skill development as a result of which they have difficulty in expressing themselves. So in order to express them and to reach out to other people, they develop certain kind of behaviours which cause hindrance in their daily living activities. As these behaviours affects their activities of daily living, these techniques of behaviour modification would help the child in better functioning thereby adjusting well and coping properly with all the situations and people in a better manner.

Further, presence of behaviour problems is known to produce great amount of stress and management difficulties to parents and other family members. At times wrong advice given by well wishers to be over strict or tolerate undesirable behaviours and to fulfill all demands of children with mental retardation in order to keep them makes matters worse. Due to the presence of behaviour problems children with mental retardation may find it difficult to get admission in special schools, cause embarrassment to the parents and family members due to the presence of socially unacceptable behaviour. They may also find difficult to adjust in different settings. So controlling these behaviour problems becomes the priority for each and every person concerned with the child as well as for the child himself.

Also it is a known fact that mental retardation is a condition and cannot be cured but as a remedy to it, some training can be imparted to the child so as to become more functional and independent. The behaviour modification techniques would help the child in attaining more independence. It is also found that when problem behaviours are identified and treatment is done earlier, it may produce long lasting and significant gain in children (Eachin, 1993).

It has been found that children with mental retardation have four to five times more behaviour problems than their normal counterparts. Many a times it so happens that parents are unaware about these problems so they either encourage

some particular behaviours or discourage them due to which there are chances that more problems may arise. With this study parents can be made aware about the problems persisting in their children and thereby would be helped to help their children.

Many a times it so happens that parents as well as many teachers are unaware about the techniques of managing the child with behaviour problems. So they tend to use some punishments which in turn would further increase the problems in the behaviours of the child. So with the help of this study, the parents, teachers and other family members would be made aware about the different kinds of problem behaviours observed in the child and thereby help them in management and remedy of the problems with the help of behaviour management techniques which would help in the overall development and better functioning of the child. Thus helping the child as well as the persons involved with him.

Sometimes it so happens that one problem may lead to another problem which would be harmful to the child or to others. So with the help of behaviour modification techniques such secondary conditions may be reduced or eradicated completely. With the help of this study the secondary problems arising in the child would be known and steps would be taken to resolve these problems as early as possible.

From the review of related literature it becomes clear that many studies related to behaviour problems in children with mental retardation and their associated problems have been done abroad but the Indian scenario states that not many studies have been conducted on behaviour problems in children with mental retardation. Further, it is also found that studies conducted in this area are mostly done on behaviour problems in children with mental retardation and very few quoted so far have studied the effectiveness of behaviour modification techniques on children with mental retardation. So this study would add up to the existing studies, different techniques useful in modification of problem behaviours.

Further more, research studies of name and year of researcher have established the efficacy of behaviour modification techniques for maintaining a stable general mental health. It is used as a supporting therapeutic in the treatment of much mental illness along with mental retardation. With children having mental retardation behaviour modification plays a major role in meeting the challenges of all skill training behaviour and in controlling the problematic or undesirable behaviour. The role of behaviour modification is also important in the training and rehabilitation of any mode of disabled condition.

After parents and the relatives of the children with problem behaviours, the most concerned are the teachers. This study would also help the teachers concerned, to know problem behaviours present in the child and the ways or the techniques which can be applied to modify these kinds of problem behaviours. So as to help the child develop to his fullest and help other children in the class room who are being affected because of the problem behaviours in particular child.

Our main motive is to see the child as a whole so as a part of his training the main priority is to control the problem behaviours, so as to ensure his progress at the fullest. So this study would help to judge the priorities of the child and there by help in better functioning.

This study would also give an insight about the effectiveness of behaviour modification techniques, in children with mental retardation having behaviour problems. It would also suggest about the most effective techniques for the children with mental retardation.

At the end, the researcher would like to point that as per the definition given by AAMR on mental retardation, the children having mental retardation has limitation in present functioning and adaptive skills. It is established that 50 - 60 % of children has one or the other behavioural problems. This condition necessitates the need for behaviour modification and so this study has to be undertaken.

This intervention study developed to study the common behaviour problems of children with mental retardation and the general modification techniques could be practiced as an intervention to reduce or modify the frequency and intensity of occurrence of problem behaviours.

### **1.12 RESEARCH QUESTIONS:**

Through this study the researcher tried to study the following questions:

1. Why is there a need to modify problem behaviours?
2. Would the use of behaviour modification techniques be effective with children having mental retardation?
3. How far would the techniques be effective in minimizing the problem behaviours in children?
4. To what extent would the problem behaviours in children be reduced?
5. For how long would the effect of behaviours modification techniques last among the children having mental retardation?
6. Would there be any changes observed in the children in terms of frequency of occurrence of problem behaviours?

### **1.13 STATEMENT OF THE PROBLEM:**

A study on effectiveness of behaviour modification techniques in children with mental retardation.

### **1.14 EXPLANATION OF TERMS:**

The main terms used in this study are mental retardation, problem behaviours, effectiveness and behaviour modification techniques.

#### **(i) Mental Retardation**

Here mental retardation is the condition in the child which refers to significantly sub average general intellectual functioning resulting in or associated with concurrent impairment in adaptive behaviour and manifested during the developmental period.

For this study children having mild to moderate level of mental retardation are selected. mild level indicates IQ ranging between 50 - 70 and moderate level indicates IQ ranging between 35-50 as given by AAMR, 1983.

(ii) Problem Behaviours or Behaviour problems -

They are those behaviours observed in the child which causes harm or inconvenience to the child and to others and are not as per the norms of the society. (R. Peshawaria 1989)

(iii) Effectiveness -

In this study, effectiveness was studied in terms of change in / reduction in / improvement / intensity and frequency of occurrence of problem behaviours. Here intensity means the force with which the behaviour is manifested, the degree of which is higher than the normal manifested in a given period of time.

(iv) Behaviour Modification Techniques -

Behaviour modification techniques are those which when applied, reduces the problem behaviour or resolves it completely (R. Preshawaria, 1989).

### **1.15 OBJECTIVES:**

1. To develop profile of each child with mental retardation.
2. To identify the problem behaviours amongst the children with mental retardation.
3. To make parents, family members aware about the behaviour modification techniques used to overcome problem behaviours in the children with mental retardation.
4. To study the effectiveness of behaviour modification techniques in terms of intensity and frequency of occurrence of problem behaviours.

### **1.16 DELIMITATIONS OF THE STUDY:**

1. Only one institution working in the field of mental retardation has been taken for the study.
2. Only those children having mild to moderate level of mental retardation were taken for the study.
3. In this, behaviour modification techniques were used only to modify or correct or minimize the problem behaviours and not for developing or enhancing skill behaviour.

## **1.17 CHAPTERIZATION:**

The present study consists of the following chapters:

### **Chapter - 1: Introduction**

It consists of topics on meaning, different perspectives on mental retardation.

Behaviours - its meaning, techniques for behaviour modification, statement of the problem research questions, objectives, rationale, explanation of terms, delimitations.

### **Chapter - 2: Review of Related Literature**

In this chapter studies conducted in India and abroad shall be discussed. These studies would either be on the same issue or the topics which are relevant to the study.

### **Chapter - 3: Methodology**

This chapter consists of the description of the tools which were used for the study, designing of the study and data analysis.

### **Chapter - 4: Data Analysis**

In this chapter the data obtained has been analyzed qualitatively, and depending upon the results, discussion has been done.

### **Chapter - 5: Summary and conclusion**

Along with the contents of first four chapters, this chapter would include major findings, conclusions, recommendations and suggestions.

- References
- Appendix