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Mentally Retarded Children: Factors, Diagnosis, Educational Adaptation and Prevention

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Abstract

Mental Retardation is a developmental disability that first appears in children under the age of 18. Mental retardation means significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance. The term retarded is slowly being replaced by new words like special or challenged. The term developmental delay is popular among caretakers and parents of individuals with mental retardation. Children who have a condition of incomplete or less than normal mental developmental so that they are unable to adjust to day to day living in a normally efficient, useful, productive and harmonious manner are called mentally retarded. They are, hence, in constant need or care, protection, supervision and help. Mental retardation is a serious disability. It creates a lot of learning problems before mentally retarded children. These learning problems create obstacle in other areas of life as well. Thus, total life activities are affected by mental retardation. As part and parcel of the society, every possible step should be taken to relieve mentally retarded children from the bad effects of mental retardation. The present study is an attempt to find out the right paths of the obstacles in the areas of lives of mentally retarded children.

Key-words: Mental Retardation, Subnormal Mind, Maternal Infection, Genetic Factors, and Metabolic Disorder.

Introduction: Many terms are used to define mental retardation. In 1955, the term "Subnormal mind" was used by British Psychologists like Cyril Burt, Clark and Clark and by the WHO (World Health Organization). The American Psychiatric Association (APA) uses the term "mental deficiency". Commonly used terms that are synonymous with "mental deficiency" are feeble-mindedness and amentia. The term "amentia" is generally used to differentiate individuals with low intelligence from individuals who are mentally ill or dementia. The popular term "feeblemindedness" is no longer used. But professionals working in this area use terms like "exceptional individuals" or "typical individuals". The psychiatrists and contemporary psychologists use the term "mentally retarded" or 'mentally deficiency".

Children who have a condition of incomplete or less than normal mental developmental so that they are unable to adjust to day to day living in a normally efficient, useful, productive and harmonious manner are called mentally retarded. They are, hence, in constant need or care, protection, supervision and help. Thus, mental retardation is a serious disability. It creates a lot of learning problems before mentally retarded children. These learning problems create obstacle in other areas of life as well. Thus, total life activities are affected by mental retardation.

Method: The present paper is an analytical and descriptive one. The paper is basically compiled with the help of various secondary sources like- News Papers, Books, Journals, and Official Gazettes, and Web Pages etc.

Description: Descriptions regarding mentally retarded children- factors, diagnosis, educational adaptation and prevention are below.

Definitions of Mental Retardation: There is no uniform method to define term "Mental Retardation" is felt by everybody. According to English law, mental retardation is a condition of arrested or incomplete development of the mind which takes place before the age of 18 years, whether arising from inherent causes or induced by disease or injury (Mental Deficiency Act, 1929). According to Tredgold (1937), mental retardation is a state of incomplete mental development of such a kind and degree that the individual is not capable of adapting himself to the normal environment of his fellowmen in such a way as to maintain existence independently of supervision, control or external support. The World Health Organization (WHO, 1954) referred to it as incomplete or insufficient general development of mental capacities. The American Psychiatric Association (1968) has defined mental retardation as subnormal general intellectual functioning which originates during the developmental period and is associated with impairment of either learning and social adjustment or maturation or both. The American Association on Mental Retardation (AAMR, 1992) refers to mental retardation as significantly sub-average in general intellectual functioning existing currently with deficits in adaptive behavior and manifested during the developmental period. The International Classification of Diseases is maintained by World Health Organization or WHO ICD-10 defines mental retardation as a condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills manifested during the developmental period, skills which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities. Retardation can occur with or without any other

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mental or physical condition (WHO, 1992). Thus, three conditions must be satisfied in order to designate a person mentally retarded: subnormal intellectual functioning, severity to the level of incapability leading to an independent life, and impairment of adaptive behavior.

Types of Mental Retardation of Children: Some types of mental retardation of children as below.

1. **Borderline or Dullards:** Approximately 85 percent of the mentally retarded population is in the mildly retarded category. They are between the morons and the normal. They general have the intelligence quotient (IQ) from 70-90 that is why they are called mildly retarded. Borderline cases and dullards are the same in physical and other characteristics but different in IQ level. The child whose IQ is between 80-90 falls into the group of dull normal and those who possess IQ between 70-80 is called borderline cases. They are identified by administering standardized intelligence test. Developmental scale is also used for the identification of these children. In every population they are about one fifth of the total population as the study reveals. They can not be termed as mentally retarded technically because they can do everything like the normal. Only their speed will be slow. They are, however, separated from the normal children from the point of view of placement. They are called Educable Mentally Retarded (EMR).
2. **Feeble Minded or Morons:** About 10 percent of the mentally retarded children are considered moderately retarded.The educationally and socially inadequate children whose IQ range is in between 50-70 i.e., they are moderately mentally retarded, come under this category. They are not custodial cases and a large number of them can study even in regular classes and in regular schools meant for the normal. They are similar to borderline cases and dullards in some ways but different in many ways. So, same teaching strategies are adopted for them as was suitable to borderline cases but placement and administrative arrangement for them differ. They are also called Trainable Mentally Retarded (TMR).
3. **Imbeciles:** Mongolism constitutes the largest category here. They are severely mentally retarded. About 3 or 4 percent of the mentally retarded population is severely retarded. Their IQ ranges are in between 25-50. They have mental deficiency to the extent that they can not manage themselves properly. Though they can be trained to care for their own bodily needs, yet they are not supposed to be trained in complex life skills. They can learn to do some simple jobs under supervision but they can never be self supporting. They would always need at least some care and control at home as well as in the institutions throughout life. In spite of these, they can be taught some language and some habitual behavior. Support may be required for life activities, such as mobility, communication, self care, and learning as necessary for independent living, employment and self sufficiency.
4. **Idiots:** They are the profoundly mentally retarded children. Only 1 or 2 percent of the mentally retarded population is classified as profoundly retarded. They are so prone to mental retardation that they can neither be educated nor trained. They possess IQ less than 25 when measured and custodial cases either in institutions or at home. They can not even dress, wash, bathe, comb, brush and so on without help. They could bubble a few intelligence words with saliva dropping from their mouths. They have vacant looks and they are not supposed to respond to any question.

General Characteristics of Mentally Retarded Children: On the basis of the definitions the following common characteristics of mentally retarded children (less than 18 years of age) can be derived.

1. **Limited Functioning**: Their level of functioning is very limited. They have difficulty not only in learning but also doing routine life job due to significant loss of conceptual, practical, and social intelligence.
2. **Sub-average Intellectual Functioning**: Their intellectual functioning is less than average (below 80 IQ) on an intelligence test. This is the fundamental criterion of diagnosing a mentally retarded child.
3. **Poor Performance Level**: If someone falls short in his performance of certain tasks from the performance of the majority of children of his own age, he is said to have low mental age or sub-normal intellectual functioning. For example, if eight years old child performs equal to the child of 6 years, his IQ will be 75 (Mental Age/Chronological Age x 100 or 6/8 x 100= 75).
4. **Slow Acquisition of Skills**: Academic (content related) and non academic (action related) both types of skills are acquired by them at a very slow arte.
5. **Low Level of Adaptive Skills**: They are not only slow in acquiring skills but they are always poor in adaptive skills also.
6. **Early Manifestations**: Mental retardation manifests itself before the age of 18. From this perspective, mental retardation is viewed as a disorder of the life period characterized by the slow rate of development.

Identification or Diagnosis of Mental Retardation of Children: For early detection of mental retardation of a child, the parents and the teacher refer the cases to child guidance centres so that their mental level may be ascertained and they may be classified for the purpose of education and training.

Following symptoms will help the teacher and parents to decide whether the child should be sent to child study centres for screening or not. Screening test results must be interpreted and matched in terms of following clinical diagnostic symptoms.

1. **Social Adjustment Criterion**: If a person is functioning adequately in all socio-economic conditions as compared to his peers or age mates, there is no need of sending the person to child guidance centres (CGC) for proper screening. Mentally retarded person will surely exhibit adjustment problem in social situations.
2. **Learning Ability Criterion**: Failure in educational endeavors or low level of general aptitude is another criterion of mental retardation but effects of socio-economic and physical factors should also be taken into account because poor academic achievement is caused due to these factors also.
3. **Development Criterion**: The developmental history of the suspected child should also be taken into account, e.g., when the child began to sit, crawl, stand, walk and talk, whether it is normal or not. Delayed development is generally seen in mentally retarded children so; retardation in these areas is certainly helpful in diagnosing the child.
4. **Academic Achievement Criterion**: These children are generally very slow in academic achievement due to low level of retention power and understanding ability. When they constantly perform poorly in content related skills despite repeated remedial measures adopted by the teachers, they are suspected to be mentally retarded.
5. **Size of the Family Criterion**: Larger the size of the family, lower will be the IQ scores of the family. Hence, it should also be taken into consideration while taking a decision of M.R.
6. **Medical Examination**: It is generally done by experts in the field of CGCs. Important physical symptoms of mentally retarded children are:
    a. He has lips fairly apart with his tongue visible in between the teeth with saliva.
    b. He has a vacant look and a clumsy gait.
    c. He has flattered skull, stinting eyes and broad nose.
    d. He has unusually large head.
7. **Proper Screening**: After identifying all the symptoms, suspected mentally retarded children are properly screened by using different tests. The description of some of these tests are:
    a. **Seguin Form Board Test**: This form board test was developed by Seguin a French physician in 1907 to identify and screen mentally retarded children. Here ten boards of different sizes are kept in different shelves of respective sizes in a tray. These boards are taken out of the tray at the time of testing. Then the child is asked to put these boards in the tray again in the same sequence as it was before in as less time as possible. This process is repeated three times and least time taking effort is taken for the purpose of scoring.
    b. **Developmental Screening Test**: This test is used to measure the mental development of children from the age of 3 months to 15 years. Here different types of activities are given to children according to their ages to do. Mental development of the child is calculated on the basis of performance on these activities. Children and their parents and relatives are also interviewed here to gather some more information about the child.
    c. **General Mental Ability Test**: This test was developed by RP Srivastava and Kiran Saxena in 1985. Verbal and non-verbal both types of items have been included here. These sections have further been divided into five sub sections namely analogy, classification, number series, reasoning problems and absurdities. Each item has four multiple choice responses out of which only one option is correct. Time allotted for verbal and non-verbal items is 15 minutes and 10 minutes respectively. One mark is given for every correct response and thus a child can score maximum 100 marks. This test can be administered in individual and group situations both.

Purpose of Diagnosing Mental Retardation of Children: Diagnosis of mental retardation serves the following purposes:

1. It provides an estimate of the individual's present level of functioning in terms of the test performance, social adjustment and so on.
2. It provides information regarding the cause of the individual's inadequacies.
3. It helps us to provide them proper care and treatment.
4. It provides some predictions of the probable outcomes in future.
5. It helps us to take decision regarding their placement in proper special educational programmes.

Factors of Mental Retardation of Children: Mainly two factors are responsible for mental retardation. These are categorized under two headings: (i) Organic and (ii) Environmental. These factors are otherwise known as cultural and familial. Organic factors include genetic factors and the factors caused by various infection and trauma. Again social and psychological factors come under the environmental causes. Organic factors account solely for moderate and severe retardation cases, while the environmental factors account for mild and moderate retardation. Different studies and research works reveal how genetic, physical, social and psychological factors are

associated with mental retardation. Studies of Linford Rees (1970) and David Stafford Clark (1964) reported that at least 5 percent of the babies born turn out to be retarded at the time of birth. Again Gibson (1963) reported that about 3 percent of the children aged between 6 and 16 years are mentally retarded. Some factors of mental retardation are:

1. **Genetic Factors**: Retardation is determined at the moment of conception in genetic conditions. In this, there are two types, namely; those caused by pairing of two defective recessive genes and those caused by chromosomal aberrations: (i) Mongolism or Down's syndrome is caused by chromosomal aberrations. It was Langdon Down who first discovered this syndrome in 1886. Reports say that about 10 percent of moderately and severely retarded children suffer from Down's syndrome. Research works reveal that aged mothers generally give birth to mongoloid children. Medical examination through testing whether the child in the fetus is mongoloid or not now possible. As a result, medical termination of the fetus is possible. (ii) Klinefelter syndrome is another kind of chromosomal abnormality in which an extra chromosome is found to be defective.
2. **Metabolic Disorder**: Statistics of mental retardates reveal that about 1 in 20,000 births suffer from PKU (Phenylketonuria). Phenylketonuria is a rare metabolic disorder. Schild (1972) reveals that 1 in 100 in institutions suffer from this type of disorder. PKU was first discovered by Folling (1934). Here the enzyme responsible for the metabolism of the biochemical phenylalanine is not present at birth.
3. **Maternal Infection**: Repots revealed that 5 percent of pregnant women have some viral infections which invite dangerous effects during the first three months (Hellman and Pritchard, 1971). Mothers who contact rubella or German measles during the first three months of pregnancy may produce children who show symptoms of disorder and retardation. Some symptoms of deafness, cataract and malformation of the heart are also seen. Medical examination reports that a variety of prenatal infectious conditions may also lead to mental retardation of the child. These conditions include cytomegalia, a body disease in which a maternal virus infects the fetus and toxoplasmosis, which is an infection due to a protozoan. Of course in both the conditions, the infection may be latent in the mother but transmitted to the fetus. Toxoplasmosis is a disease that can cause severe neurological damage to the developing fetus.
4. **Mental Retardation Associated with Intoxication**: The cause of mental retardation can be associated with intoxications due to carbon monoxide, lead, arsenic, quinine and other substances. Permanent brain damage and mental retardation are found due to postnatal accidental poisoning of infants and children. Toxic condition during the first few days following birth may cause kernicterus which is another brain disorder. The term "Kernicterus" refers to the yellow staining of certain nuclear masses of the brain including the basal ganglia and the hypothalamic nuclei. This pigment is identified as "bilirubin".
5. **Mental Retardation Associated with Trauma:** Physical damage due to prenatal injuries or during birth may cause mental retardation. Exposition to large amounts of irradiation of a pregnant woman causes retardation also. Here the fetus may be adversely affected. The type of damage depends upon the developmental stage of the fetus. Reports of medical examination reveal that when the uterus is irradiated during the first three months of pregnancy, the incidence of mental retardation is reported to be significantly high.
6. **Mental Retardation Associated with Hemorrhage of Brain:** Hemorrhage of the brain at the time of birth is also a potent factor for mental retardation. In normal births, the risk approaches to zero; but in cases of abnormal positioning of fetus, breech extraction or the use of forceps increases the possibility of bleeding in the brain of the child. There is every possibility that these children are ten times more likely to be retarded than a child born normally. Some psychiatrists reveal in their research reports that premature birth is an important cause of mental retardation. Again, cerebral palsy, motor disability associated with organic brain damage is associated with mental retardation. The main symptom here is motor in coordination.
7. **Mental Retardation Associated with Tumors:** Studies in the mental hospitals confirm that a tumor in the brain may cause hydrocephalus, i.e., accumulation of an abnormal amount of cerebrospinal fluid in the cranium. Neurofibromatosis is a condition characterized by skin patches of a dark brown color. Different sizes of patches are generally found. Skin tumors are present. In some cases, there is normal intelligence, while in others mental retardation is significant. Epiloia is another disease transmitted by a dominant gene with variable expression. Numerous nodules and tumors throughout the brain are found. A butterfly shaped rash develops on the face and spreads over a wider area. The condition may be accompanied by the development of convulsions and retarded mental development. Microcephaly refers to an arrest in the development of the brain at the 4^{th} or 5^{th} month of fetal life. It is mainly caused by an abnormal growth of cells that form the supporting structure of the brain tissue. This disease is characterized by enlargement of the

skull, increase in the size and weight of the skull, visual impairment, convulsions etc.

8. **Mental Retardation Associated with Environmental and Psychological Causes:** A combination of genetic and environmental factors is responsible for familial type of mental retardation. Early emotional deprivation and disturbed parent child relationships are some of the potent factors associated with mental retardation of this type. Emotionally disturbed children are considered to be oversensitive to psychological stress and vitamin deficiency is likely to cause over susceptibility to infection. Several small-scale surveys report that the familial types of retarded children are found in low socio-economic families. In all these cases, the parents' intellectual and educational levels are low. Heber (1970) pointed out that the low socio-economic status is responsible for mental retardation. These kinds of mental retardates have a family background characterized by poverty with no facilities for gratification of physiological needs. In addition to these, the parents' intellectual level is low. As a result, lack of social, emotional and motivational support for the child is found. Study of Benda et. al., (1963) has revealed that by eradicating or reducing poverty, the incidence of mental retardation can be considerably reduced.

Mental Retardation and Adjustment Problems: Special psychological difficulties for retardates are found in day-to-day life. These are:

1. Mild depression, feelings of worthlessness and helplessness are experienced.
2. As a retardate grows older, he becomes lonely and unable to adjust in society. Evidence points towards the frustration of psychological and social needs which predispose some retardates to feel angry and rebellious.
3. Parents of such children develop a guilt complex. Parental overprotection is a glaring example. Sometimes they do not encourage self-help; rather they continue to dress and feed the child up to an advanced age. As a result, this type of behavior encourages a dependent style of interaction in the child. Mainly overprotection and denial of the parents invite adjustment difficulties of such type of children.

Methods of Identification of Mentally Retarded Children: Different criteria are used to classify mentally retarded children into different categories. These are:

1. **Normal Distribution Criterion**: In a normally distributed population, mentally retarded population is found beyond 2SD from the mean, i.e., about percent of the population is generally found mentally retarded. If this population is tested on intelligence test, their IQ will be less than 90.
2. **IQ Criterion**: American Association of Mental Deficiency has classified mentally retarded children on the basis of their IQ scores. Several other educationists have also classified them on this basis. Four broad categories of mentally retarded children are: (i) Borderline Cases or Dullards (IQ= 70-90) (ii) Morons or Feeble Minded (IQ= 50-70) (iii) Imbeciles (IQ= 25-50) and (iv) Idiots (IQ less than 25).
3. **Medical Criterion**: Medical personnel and physician classify mentally retarded children on the basis of their physical or mental characteristics caused by damage in the functioning of the brain due to genetic or environmental reasons. Some of these categories are:
   a. **Brain Damaged Child**: It is a type of organic malfunctioning in the body which is caused by any serious disease or damage of the brain.
   b. **Mongoloids**: These slow learners are very peculiar in the physical characteristics and behavior such as they are very humble and friendly, they are very poor in taking initiative, they are obstinate in behavior and they are so simpleton in their behavior that we call them as cow of the God. Mongols are moderately mentally retarded whose IQ ranges 50-70.
   c. **Cretin Child**: Mental retardation in these children is caused due to any deformation in thyroid gland. They can be cured by the physician by correcting thyroid gland provided that they are identified in the early stage. They are similar to mongoloids in behavior and characteristics.
   d. **Phenylketonuria (PKU)**: This problem is caused due to metabolic disturbances but its incidence is very rare. When body fails to metabolize phenylalanine protein, a toxic material reaches the brain and enters it through blood circulation and brain cells are damaged resulting in mental retardation.
   e. **Microcephaly and Hydrocephaly**: The head becomes short in microcephaly and large in hydrocephaly, as a result cerebral spinal fluid which is responsible for mental action stops causing mental retardation permanently.
   f. **Cerebral Palsy**: It is a type of disease which causes uncontrolled action of some muscles and mental retardation is caused due to in-adjustability of muscles.

Educational Adaptation of Mentally Retarded Children: Educational adaptation of mentally retarded children.

A. Educational Adaptation of Mildly Mentally Retarded Children:

1. **Aims of Education**: Aims of education for these children are almost similar to the normal because

borderline cases have everything except a slightly minor lack in their mental abilities which can be compensated by special care and attention. However, they are expected to excel more in technical fields rather than in academics. So, it is better to enroll them in technical or semi professional courses just after high school.

2. **Administrative Arrangement**: They have some difficulty only in adjustment with the normal people so special schools or special classes may be arranged for them. However, if they remain in regular schools, attend regular classes plus partially integrated classes (some periods in regular classes and some periods in special classes) and some extra help and special attention are also provided to them, it is far better for them. This arrangement will help them more adjust with the normal people of the society.
3. **Special Help**: (i) Partially integrated classes (ii) Itinerant services like regular counseling, periodic excursion and camping (iii) Extra curricular activities (iv) Remedial teaching (v) Regular checking of assignment (vi) Behavior therapy by the psychologist and (vii) Continuous evaluation.
4. **Curriculum**: No modification in the curriculum is needed for them because they can study each and every subject but somewhat slower speed than the normal. Their academic achievement will also be lower than the average. They need only special help. They should be motivated and encouraged even if they perform poorly or fail in the class. They are likely to excel more in non academic, technical and semi professional subjects than the academic subjects because these subjects involve activity more than thinking process. Therefore, after high school, they should be admitted in such courses.
5. **Teaching of Special Skills**: (i) They generally have adjustment difficulties, so, special concession must be given to them by the society. Their behavior should be tolerated to some extent and changed by using behavior therapy. (ii) Activity dominated skills like electric fitting, motor repairing, radio or electronic equipment repairing, decoration skills etc. may also be taught to them.
6. **Adaptive Methods of Instruction**: Modification in the method of teaching is needed to bring these mentally retarded children to normal. A special teacher can play the roles in this regard as:

I. Improving Functional Academic Skills: Mildly or moderately mentally retarded children respond to instructional strategies almost in the same way as other normal students do. They only require more time to achieve mastery or require special instructional procedure to generalize what they have learned in the class or resource rooms. An effective regular or special teacher can improve their functional academic skills in the following ways:

1. They generally avoid tasks given to them. In order to reduce this habit random check and regular monitoring of behavior are necessary. Reward and punishment techniques should also be used to increase incidence of wanted behavior.
2. Since these students are a little low at their confidence level, products as well as the processes both should be rewarded. They should be helped how to start a task and how to complete it in the allotted time.
3. In order to improve their functional reading, they should be given chance to practice those materials which they already know and use in their daily life. The names of these materials, objects and persons should be written by them in a drilling manner. It will help them develop a clear concept of these materials and objects.
4. Once the student has learnt a list of functional words, he should be given chance to apply those words in his real life situations on his own.
5. In order to improve their functional writing, activities of daily living should be used. i.e., listing daily activities, noting down home and class works, writing the crammed materials on paper, writing messages received from others and communicating messages to others.
6. In order to improve arithmetic and computational skills, they should be given more and more questions for drillings. Computers should also be provided to them to do some practice of geometry and algebra through the programmes fed in computers.
7. In order to improve functional mathematics, problems related to real life situations should be given to them to solve.
8. When the teacher starts teaching any new skill, he should give related examples first.
9. Modification in tests and evaluation procedures is also necessary to improve general learning. For example, short test at frequent intervals is preferable to long tests of annual or half yearly nature. Similarly, more objective type of questions should be included in the test than few essay type questions.
10. Complex skills should be taught to them only after splitting them into parts and each part should have to be followed by definite steps.

Thus, we see that the focus of attention of the teacher is always on improving functional skills of students.

II. Improving School Adaptive Behavior: Social skills, self direction, self care, health and safety are the important school adaptive behaviors where intervention is especially needed. The teacher will address these areas in the class room in the following manner:

1. **Social Skills**: Students should be engaged in those plays and activities which require maximum display of social skills and wanted behavior of children should be rewarded regularly by the teacher.
2. **Reduction of Social Isolation**: They should be given opportunity to select those students as friends who have common interests and habits in order to share experiences with them.
3. **Improvement of Self Direction Skill**: They should be given chance to discuss the problems to solve them. Many alternative solutions will help them to improve their self direction skills.
4. **Improvement of Self Care, Health and Safety Skills**: Video cassettes showing wrestlers fighting in the ring and athletes performing on the tracks and marks may be used for this purpose. TV can also serve this purpose. These demonstrations will motivate them to take care of their health.

B. Educational Adaptation of Moderately Retarded Children:

1. **Aims of Education**: (i) Adequate social development (ii) Academic achievement to the ability level (iii) Inculcation of adaptive social skills (iv) Development of vocational skills (v) Teaching of self help skills, health and safety training, teaching of emotional control.
2. **Skills Based Curriculum**: They approach to normal in sensory acuity and motor ability more than they do in academic pursuits so, curriculum should be based on motor abilities and demanding sensory acuities. They can excel in motor abilities even more than normal. Thus, mechanical and vocational education is most suitable for them.
3. **Academic Pursuits**: Morons are expected to acquire academic skills ranging from grade 3rd to grade 10th but they will reach that level at a later period than the normal due to repeated failures and slow rate. Thus, they can obtain 7th grade education in 10 to 11 years.
4. **Academic Curriculum**: At primary level, much of the school work is pre-academic. At junior level, instruction is basically provided in basic social and vocational skill areas. At secondary level, they are partially integrated with the regular students (if they have reached that level). Here more academic subjects like English, Social Studies, Science and Mathematics are taught in special classes and less academic subjects like Music, Arts, Economics, and Physical Education etc. are taught in regular classes. Much emphasis is given on preparing the child for life and work. Lastly, post school education is concentrated to job training only.
5. **Social Adjustment and Training**: Socially acceptable attitude are tried to develop in them by using social skill training and behavior therapy. They are especially taught to face the realities of life and cope with its difficulties.
6. **Physical Training**: They are not much less than normal in physical areas of life, so, such training should be started for them from an early age. It should be made a regular part of the curriculum. This type of training is a must for them because their job will mainly be restricted to those areas which involve physical labor, i.e., motor abilities, type writing, tailoring; tannery works, driving etc. are most suitable education for them.
7. **Placement**: They are deviated from the normal to such an extent that they can not be educated properly in regular classes. They can be educated and trained only in special classes, or special schools exclusively meant for them.

C. Educational Adaptation and Care of Imbeciles:

1. **Aims and Objectives of Education or Training:** They are the dependent or semi-independent individuals throughout their lives. So, objectives of education for these children are restricted to only few areas: (i) To develop self help skills (ii) To promote socialization (iii) To teach elementary oral language.
2. **Adapted Curriculum:** Physical and mental health centered content, stressing upon nutrition, cleanliness etc. and some areas are: (i) Safety teaching and education of first aid (ii) Skills of listening, observing, speaking and writing (iii) Home economics and sociology (iv) Local travel skills (v) Passive and active recreation (vi) Games involving physical activities and muscles (vii) Inter-personal and group socialization skills (viii) Concept of money, value and management of material and time (ix) Habit of work and responsibility training and (x) Habit of judgment in ordinary matters.
3. **Teaching of Functional Skills:** Functional skills have real application in daily life at home as well as in the community. They should be taught to participate in these activities practically so that they may be able to interact with peers and age mates, to make independent decisions and to enjoy the environment independently.
4. **Areas of Special Instruction:** Four areas of instruction are considered critical for these children communication, self care, mobility and community living. They should be given chance to communicate the people orally in special manner and written communication should also be encouraged. Sign language, communication boards, symbol boards and electronic communication devices should be used. The development of self care skills should begin in the early years of their lives. Self cure skills consist of feeding, dressing, toileting grooming, washing, bathing, brushing, hair combing, etc. Mobility is essential not only for general health and comforts but also to participate in school and

community activities. They should be especially trained to improve their mobility by organizing various social and game activities or by using physiotherapy. Independent and successful community living requires mastery of basic vocational and recreational skills. They should be taught such skills which can help them get some jobs in future life, such as obeying instructions, completing ordinary habitual tasks, following rules and regulations etc. They should also be helped in not only finding a job but special assistance should be given to them in learning, performing and keeping jobs.

5. **Adaptive Methods of Instruction:** Special teaching approach is required to teach these children in special classes. A teacher has to follow the steps: (i) Assessment of current level of functioning, i.e., what the child can do at present and what he is expected to do in future after training. (ii) Defining the skills to be taught in behavioral terms, i.e., students will be able to do this and after the training is over. (iii) Arranging the conditions of learning, i.e., what sequence of steps will be used to teach the desired skills? (iv) Prompting and cueing the responses, i.e., what verbal or material messages will show and motivate the students what to do and in a better manner. (v) Reinforcing good responses, i.e., what feedback system will be used in special classes to maintain and improve the desired behaviour? (vi) Prompting generalization, i.e., what procedure and techniques will be used to help them apply the learnt skill in practical life situations? (vii) Evaluating performance, i.e., what procedure and methodology will be used to judge whether the learnt behavior is a success for the students or not? Since they can not be taught much by way of reading or writing, learning by doing and activity centered strategies are used for them. Some of the high grade imbeciles can do some manual works, such as they can cane the chairs, they can sweep the floor, they can water the plants, they can dig grounds, they can produce some simple articles like mats, carpets etc. under supervision. So, these functional skills are especially stressed in special schools. Farming, gardening, repairing shoes or clothes and many other similar activities are not also uncommon to these children of higher intelligence hence; they should also be given in schools after identifying competent imbeciles.
6. **Placement:** The principles must be followed while placing them in any special institutions: (i) They should be placed in those schools which are close to the schools attended by the normal children. (ii) They should be placed in age appropriate schools. (iii) They should be placed in those schools and special classes where principal and teachers support their admission. (iv) They should not be placed in those schools where a large number of children of other types of disabilities study. (v) They can be placed in any of the settings depending on the nature and degree of disability: (a) Residential schools (b) Special day schools (c) Special classes and (d) Sheltered workshops. (vi) They will be slowly withdrawn from residential or fully intervened system of education and integrated to regular classes in normal schooling system. This is essential for teaching them four fundamental skills namely communication, self care, mobility and community living.

Prevention and Treatment of Mental Retardation of Children: The cause of mental retardation may be genetic and acquired both. As far as genetically caused retardation is concerned, they can not be treated at all. Retardation caused due to environmental factors can be cured but only to some extent by applying medicines or surgery. Important preventive measures to avoid mentally retarded child are as follows:

1. Close relatives should not marry each other as much as possible. Recessive or dominant genes are mostly transferred to offspring due to this reason, which are the main cause of mental retardation.
2. Pregnant mother should not consume wine or drugs during pregnancy or she should not smoke too much during this period.
3. Infectious diseases occurred during pregnancy should be treated as early as possible.
4. If there is any blood abnormality either in the father or mother, it should be treated first before trying for an offspring.
5. Balanced diet and regular exercise during pregnancy is the key factor to avoid a handicapped child.
6. Delivery or caesarean should be conducted under the supervision of an experienced doctor and nurses.
7. Parents should follow right path and the path of justice to avoid such children. This may be an important reason of mental retardation.
8. Proper care of the child in the early eight years period of his life.

Suggestions for Parents of Mentally Retarded Children: Very often parents fail to understand their children, and prefer to keep the mentally retarded children at home. But they have to develop a right and positive attitude for bringing them up. If parents suspect that a particular child is mentally retarded, they should get him medically checked up first. If possible, they should take the child to the guidance or psychological centre to ascertain the degree of mental retardation. After confirmation, they must face the problem courageously and with determination. They should not blame anybody or curse their fate for their child. The parents should know that the child needs basic security and he can have it through love and

affection. Sometimes certain neighbors are so unsympathetic that they become responsible for increasing the stress on the family. But they should be a little cautious in dealing with such type of children. In some developed countries, baby sitters are prepared to deal with all possible dispositions of the mentally retarded children and they relieve the parents to go out together occasionally. But for a developing country like India, it is only a dream. The family members of mentally retarded child must see that their child is not bullied or teased by other children.

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