CHAPTER I

INTRODUCTION

Mental retardation is one of the most well known social problem. It is very often observed that the mentally retarded children have several problems, one of which is the behavior problem. The present study makes an attempt to find out specific behavior problems in mentally retarded children. The study also intend to investigate the relationship that exist between the home environment and behavior problems in mentally retarded child.

Concept Of Mental Retardation

Mental retardation is a very old concept. This concept refers to subnormal intellectual functioning, which manifests itself during the developmental period and is associated with impairment in adaptive behavior and incomplete mental development. The mentally retarded are those whose normal intellectual growth is arrested before birth, during birth process or in the early years of development. Such a child's developmental milestones are delayed, he/she cannot learn like a normal child, has difficulty in meeting the needs of every day living due to impaired ability to learn, finds it difficult to obtain and hold a job and to become socially acceptable.

Mental retardation has been designated by various terms and is defined in many ways; though in general it
stands for a subnormal intelligence and a reduced capacity for learning.

There are so many degrees and types of mental retardation that there is no single definition that can include them all.

According to the Mental Deficiency Act 1927 of England "Mental defectiveness means a condition of arrested or incomplete development of mind existing before the age of eighteen years, whether arising from inherent causes or induced by disease or injury".

The real criterion of mental deficiency is a social one, and that a mentally defective individual, whether child or adult is one who by reason of incomplete mental development is incapable of independent social adaptation.

Doll E. A. (1941) stated that "the mentally deficient is (i) socially incompetent, i.e., socially inadequate and occupationally incompetent and unable to manage his own affairs, (ii) mentally subnormal, (iii) intellectually retarded from birth or early age, (iv) retarded at maturity, (v) mentally deficient as a result of constitutional origins, through heredity or disease and essentially incurable".
Tredgold A. F. (1947) stated that "Mental deficiency" or amnesia is a condition in which mind has failed to reach complete or normal development."

Jervis, S. A. (1952) stated that "Mental deficiency may be defined from a medical point of view, as a condition of arrested or incomplete development induced by disease or injury before adolescence or arising from genetic causes."

According to Berida (1952) "A mentally deficient person is one who is incapable of managing himself and his affairs, or being taught to do so; and who requires supervision, control and care for his own welfare and the welfare of his community."

Parteus, S. D. and Corbett, G. R. (1953) stated that "Feeble-minded persons are those who are permanently retarded or arrested with respect to mental development existing from early age are incapable of independent self-management and self-support".

According to Mental Health Act of 1954 of England "Mental deficiency is an arrested or incomplete development of mind."

Sarason Seymour B. (1955) stated that "Mental retardation refers to individuals who, for temporary or long standing reasons, function intellectually below the average
of their peer groups but whose social adequacy is not in question or, if it is in question, there is the likelihood that the individual can learn to function independently and adequately in the community."

Benoit E. P. (1959) stated that "Mental retardation may be viewed as a deficit of intellectual function, resulting from varied interpersonal and/or extrapersonal 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 integration and consequently in environment adjustment."

Beier (1959), Heber (1961), Bijoy (1963) have given more meaningful definition of mental retardation. According to them, "the substitution of "psychological", "developmental" or "behavioral" for the term "Mental" would make the definition more meaningful."

According to the basic definition of mental retardation adopted by the American Association on Mental Deficiency (May, 1960) "Mental retardation refers to sub-average general intellectual functioning which originated during the developmental period and is associated with impairment in adaptive behavior (Heber, 1961)". This is now almost universally accepted.
Mental retardation is not only a medical problem but also a social problem according to Kidd, J. W. (1964). "Mental retardation refers to significantly subaverage intellectual functioning which manifests itself during the development period and is characterized by inadequacy in adaptive behavior".

According to many authorities mental defect is fundamentally a social, and not simply a medical or psychological problems.

The World Health Organization recommended the use of the term mental subnormality which in turn is divided into two separate and distinct categories: (i) Mental retardation and (ii) Mental deficiency. (Biswas, M. 1980)

According to W.H.O. nosology, "mental retardation" is reserved for subnormal functioning due to environmental causes in the absence of central nervous system pathology and "mental deficiency" describes subnormal functioning due to pathological causes. It is also used often as a legal term which applies to people with an IQ below 70. If the IQ score falls one standard deviation below the mean, the individual is labeled as mentally retarded.

The American Association on Mental Deficiency in its revised edition (Grossman 1973, 1977) used terminology from a classification espoused earlier by Heber (1959), now
defines Mentally retarded as "significantly subaverage general intellectual functioning existing with deficits in adaptive behavior manifested during the developmental period".

According to DSM III "significantly subaverage general intellectual functioning, resulting in, or associated with, deficits of impairment in adaptive behavior with onset before the age of 18". This definition is widely accepted. The inclusion of the adaptive behavior in the American Association on Mental Deficiency definition has been a crucial development for the concept of mental retardation. Assessing adaptive behavior is now comparable to determining Intelligence Quotient in establishing levels of mental retardation. The criteria of the definition, that retardation must be evident by age eighteen, differentiates mental retardation from traumatic or deteriorative disorders occurring in adulthood.

Criteria For Mental Retardation:

Various definitions have emphasized different criteria for explaining the concept of mental retardation. These criteria for mental retardation can be summarized as in the following chart:
Criteria for Mental Retardation

| Psychometric Criteria | Educational & Social Criteria | Clinical Criteria | Legal Criteria |

A brief description of the above mentioned criteria are as follows:

(i) Psychometric criteria

According to this criterion intelligence score is the measure of general ability. If the intelligence score is lower than one standard deviations below the normal, the person is said to have retarded intelligence.

(ii) Educational and social criteria

The mentally retarded individuals are socially inadequate. They cannot adapt themselves to the social order prevailing in the country. They are educationally subnormal or retarded. They are unable to derive any benefits from the ordinary schools.

(iii) Clinical or medical criteria

According to this criterion, mental retardation is a result of pathology existing along with social and
intellectual handicap such as mongolism, delayed motor, social and intellectual functioning with or without pathological abnormalities.

(iv) Legal criteria

According to English Mental Health Act 1959, a patient is subnormal by reasons of arrested or incomplete development of mind, which includes subnormality of intelligence. He requires or is susceptible to medical treatment or other special care or training.

Thus while describing mental retardation two major criteria have been commonly considered: (i) Poor intelligence and (ii) Lack of social skills and poor academic achievements.

(I) Mental retardation or low IQ as the criteria

The 1913 British Mental Deficiency Act (amended in 1927) nowhere mentioned intelligence explicitly, but rather used the words as "arrested or incomplete development of the mind". This was the feature of the definition.

The condition of "arrested or incomplete development of the mind", however is manifested in varied ways. An important manifestation is failure to develop intellectual functions. It can be measured by psychometric methods and assessed under such terms as "mental age" or "intelligent
quotient". This however is by no means invariable and in other cases, the undeveloped mind may be manifested chiefly by failure to attain normal control of the emotions, or to achieve the qualities needed for normal social behavior.

Recent research has rejected Intelligence quotient as the sole criterion of mental retardation, as measured IQ does not always correspond to social competence or adaptive behavior.

(i) The IQ. is liable to some degree of measurement error. This may be either due to imperfect standardization or because of individual cognitive or motivational fluctuations, possessing no long term significance.

(ii) The same IQ. on different tests may not be the same.

(iii) Over long periods of time intellectual growth does not necessarily proceed in a constant fashion with reference to chronological age and mental age. It may change, sometimes markedly, and the rate of increase, which indicates that IQ. changes, may or may not reflect real growth changes.

(II) Social competence as a criteria for M.R.

Social incompetence as a sole criterion is self evidently so vague that now-a-days it is rarely discussed as a sufficient criterion of retardation. Standards that
constitutes social competence are arbitrary and they not only differ between societies but also within the society in different areas and social clauses, as well as at various points in time. Nevertheless, social incompetence is a major criterion of mental retardation.

Therefore, while diagnosing mental retardation not only IQ, but social and academic achievement of the individual must be taken into account. A complete diagnosis of mental retardation can be made only by studying the individual from the medical, psychological and sociological points of view.

Thus, from these definitions and criteria, we understand that mental retardation is not a unitary problem arising from a single cause but a multiphasic problem. The mentally retarded children are not only intellectually deficient but they are socially inadequate and occupationally incompetent.

Mental retardation depends on numerous variables which are difficult to define. As we have already seen, some authors have defined mental retardation with reference to social adaptability and ability to deal effectively with the environment.

Consequently, the definition and classification of
mentally retarded also gets affected from time to time throughout the world as new data emerges.

It is a world wide and one of the most challenging problems of childhood. It affects not only the parents but also the siblings and the community.

As mentioned earlier the mentally retarded children themselves suffer from many problems which affect the home environment and vice versa.

BEHAVIOR PROBLEMS

Concept of Behavior Problem

The term "Behavior Problem" is used here in a broad sense. Any type of persisting problems which may hamper the successful adjustment of the children can be considered as a behavior problem. Parents and teachers usually come across several types of behavior problems in children. In Wickman's (1928) study which was conducted in America, it was found that teachers and mental hygiene expects disagreed to some extent regarding the seriousness of different types of behavior problems. Inattention, carelessness, laziness and disobedience were considered as the most serious problems by teachers. The least serious problems according to them included thumb sucking, suspiciousness and sensitiveness.
Types Of Behavior Problem

Attention Deficit Disorder

Attention Deficit Disorder (ADD) is the term used by DSM-III to designate a large group of children whose significantly dysfunctional state is characterized by a failure to remain attentive in situations, especially in the school and home, where it is necessary to do so.

Attention Deficit Disorder is further divided into two subtypes namely ADD with Hyperactivity and Attention Deficit Disorder without Hyperactivity.

Criteria for ADD with Hyperactivity

The DSM - III category of ADD with hyperactivity refers to three areas. Inattention, Impulsivity, and Hyperactivity.

a) Inattention

The attention deficit is observed as destructibility with a short attention span. The child or adolescent may be more distracted by visual or auditory inputs or both.

b) Impulsivity

The impulsivity may be reflected in the child's acting before thinking, thus not learning from experience. School work may be hastily or poorly done. The child may react quickly, knocking things over or disrupting the activity.
c) Hyperactivity

Hyperactivity is perhaps the easiest to observe. Such children have difficulty sitting still at home or in school, constantly fidgeting or twisting in their seats, tapping fingers or jumping up to walk or turn around. Even when watching television, such as children may be restless or doing several other activities.

The most prominent of these associated features is inattentiveness, or the inability to maintain attention during periods when persistence and attention are required. The child is easily losing interest, not listening, concentrating poorly, or having a short attention span. Over 85% of children with hyperactive behavioral patterns also show inattentiveness.

Conduct disorder

Conduct disorder (CD) is a term that, like its predecessor, unsocialised aggressive reaction, has been used to designate children and adolescents who show a multiple of more or less serious neuropsychiatric signs and symptoms.

According to DSM-III conduct disorders are divided into four subtypes namely

(i) undersocialized aggressive (ii)
undersocialized non aggressive (iii) Socialized aggressive and (iv) Socialized non aggressive.

The undersocialized types are described as failing to establish a normal degree of affection, empathy or bond with others. They are said to have superficial peer relationships, egocentric and manipulative. They lack concern for the welfare of others and appear to be without guilt or remorse.

The socialized types of young persons with conduct disorder are described as having some attachment to others, such as to youngsters in a peer group. They resemble the undersocialized types, however, they may be similarly callous or manipulative towards persons to whom they are not emotionally attached. The behavior of the aggressive types is characterized by physical violence against others.

The aggressive types are characterized by a repetitive and persistent pattern of aggressive conduct in which the rights of others are violated, by either physical violence or thefts outside the home involving confrontation with a victim. Physical violence may be directed against parents. Thefts outside the home may involve extortion, purse snatching or holdup of a store.

The Nonaggressive types are characterized by the absences of physical violence against persons and of robbery outside the home involving confrontation with a victim. However substance abuse, running away overnight while living
in the parental home, vandalism or stealing (not involving confrontation of a victim) are common among them.

**Nature of aggression**

Aggression is one of the most frequently encountered behavior problems in children. This includes fighting with other children in the neighborhood and at school, constant teasing of other children, extreme competitiveness, physical attacks and verbal abuse of adults, cheating in order to win and a constant desire to be the center of attention. Aggression is usually associated with disobedience and with a cluster or traits (sometimes referred to as temperament) which, includes impulsivity, impatience, quick temper and recklessness. It is also associated with social egocentricity. The very aggressive child tends not to respond to the distress of others, not to express remorse when discovered in some misbehavior and to be usually possessive about toys. Together with quarrelsome and destructiveness these traits help define the common psychiatric problems of aggressive conduct disorder.

Some developmental sequence can be seen in the manifestation of aggressive behavior in childhood.

1. Biting may be frequent. Children sometimes may bite due to the irritation following teething. Biting may also have its psychological implications. It may be sometimes a form expression of love for the
ii) Temper tantrums is not the only manifestation of anger in children. Shyness, sulleness and moodiness are other manifestations. Moodiness may lead to brooding and day-dreaming in which fantasies of a revengeful nature may occur. This nature may be expressed in fighting, kicking, going rigid or other forms of temper tantrums.

(iii) Negativism. This usually occurs if adults interrupt the child when he/she is engaged in an enjoyable activity. His tractability varies with the strength of his desire to continue what he/she is doing with his knowledge of the reactions of the adults involved to a refusal. Sometimes once having taken a stand, pride will not permit him to reverse himself and the child may persist in refusing a simple request to hang up his coat, even after receiving a severe whipping for non-compliance.

(iv) Obedience. Negativism is an open refusal and challenge to the adult. Evasive disobedience, in which the child promises to obey but does not or claims he did not hear the direction, is more subtle and avoids an open clash. The child who not only fails to comply but does exactly the opposite of what he is told is indulging in a sound gesture of contempt, for example when asked to close the front door he has left ajar,
he marches over to it and flings it wide open. Permissiveness is the most common reason for recurrent disobedience. The child has learned that he can disobey when he chooses, without penalty.

(v) Lying. Most distressing to parents, but most reasonable to the child is the lie he tells to protect himself. A child lies to gain attention and prestige, boasting that he was first on a test which he barely passed or claiming that he has a television set in his room. He also tells falsehoods about other children in order to get them into trouble. He has limited self-confidence and he tries to construct an image of himself as a person of importance and authority. The child who lies to protect himself should be helped to confess his misdeeds.

(vi) Stealing. Some children need the things they steal or want so desperately that they take them. The need for affection withheld by parents impels a child to acquire possessions as a substitute. If he believes that his parents never think of him or need him, he picks up trinkets and toys in the store, accumulating a large store of treasures which afford him some consolation. Some children with a moderate amount of attention and affection, want more.

(vii) Stereotype or Repetitive movements. Head rolling consists of repetitive waving or oscillating
of the head and neck. In body rocking the child typically moves in back-and-forth motion while remaining on the hands and knees. The usual episode lasts, less than 15 minutes. Frequently the rhythmic repetitive movement will be in association with music from a toy or radio. This rhythmic behavior pattern is characterized by striking the head against a solid object as often as 60-80 times a minute.

Behavior Problems in M.R.

Several studies have pointed out the behavioral peculiarities of the M.R. children. These are as follows:

1) Speech and communication
2) Social interaction
3) Self-care
4) Academic adjustment
5) Motor skills and
6) Vocational adjustment.

As the child approaches school age his retardation becomes more and more apparent. The difference between his capacities and those of the normal child becomes more discernible. In his play activities, for example, he becomes more and more isolated and feels rejected outside as well as inside the house.

The retardate often develops depressive reactions. The development of such reaction is due to inadequacies in the relationships of mother and child. Another behavioral
reaction of the mentally retarded child is the tendency to repeat the speech of an adult. This is a fairly common characteristic of these children. The repetition of speech is known as echolalia. Psychologically it is similar to other types of repetitive and imitative behavior. The child may repeat the actions of his parents, mimicking the behavior in walking or in other physical activities. This type of repetitive behavior is known as echopraxia.

The gap between the mentally retarded child and average child becomes noticeable as they grow. The home situation have a more clearly demonstrable effect on the child. The impact of social and cultural forces outside the home becomes increasingly important. The concern of parents about the effect of their retarded child's behavior upon his siblings and the defensive behavior and feelings of the siblings may complicate the problem of adjustment of the retarded child. He is confused, bewildered and feels rejected. He is not sure how to react. Thus, the entire family climate is not conducive to the full development of the capacities that he possesses. Rather, it has two negative effects (i) it inhibits psychological maturation in all areas and (ii) it serves to complicate the normal problem that every retardate has. (Hutt & Gibbi 1965).

The mentally retarded child may be affected by environmental stress, such as, the child may bully younger children and may at a times, hurt them. He behaves like an
average child with excessive aggression. He may become disobedient. He may break things and even harm himself. He may lie, cheat and steal and be untrustworthy in general. Such reactions are not the result of mental retardation, but of the emotional trauma that may be encountered as a result of it.

On the other hand, the retardate may react with patterns of excessive timidity. He may be very shy and may show asocial forms of behavior when in the presence of other children or adults.

Many habit disorders may also be shown. The retarded child may react to his emotional stress with enuresis (bed-wetting). He may wet or soil his clothing during the day (diurnal enuresis), or he may do this only at night (nocturnal enuresis). He may show excessive amount of thumb sucking or nail-biting. He may also have feeding problems, such as, refusal to eat certain foods or even refusal to eat at all (anorexia).

In puberty the retardate tends to be subjected to over rejection on all sides by social institutions, family, neighbours and by other children. He is unable to adjust himself in vocation and develops frustration. Since frustration is one of the primary cause of aggression, it is not surprising that the retarded child may frequently
manifest aggressive behavior. The retarded child, like other children will sometimes engage in delinquent behavior often he is not aware of the consequences of his behavior. Frequently he is oblivious to the fact that he is breaking some particular law. His impulses are not as readily controlled and tend to emerge in an impulsive manner.

CAUSES OF MENTAL RETARDATION.

Mental retardation is a behavioral syndrome which does not have a single cause, uniform mechanism or similar prognosis of rehabilitation. It should be pointed out that mental retardation is not a single disease entity but a set of symptoms developing from many different conservative factors. It is a multidimensional problem of a combination of psycho-social, cultural, biological and environmental factors.

The identification of the causes of mental retardation has slow progress compared with other branches of medical and biological science. The causative factors of mental retardation are described as follows.

(I) Genetic factor

The great majority of cases are attributed to a single genetic factor. Down's syndrome and Phenylketonuria are
usually established at birth or young age and are the most common chromosomal and metabolic disorder. The severity of mental retardation in these cases are moderate to profound.

The chromosomal abnormalities causing various types of mental defects notably Mongolism, has heightened interest in the field of etiology of mental deficiency. What causes these chromosomal abnormalities is not clear.

The pathological and social are two sets of aetiological factors, which are interdependent. Pathological factors are harmful biological or physical agents, directly responsible for the encephalopathy or neural dysfunction. It causes gross abnormality of the nervous system and are more important in the production of severe cases of mental subnormality.

Following section describes the various studies and surveys conducted on causes / etiology of the M.R.

Lewis' (1933) suggested that these higher grade defectives constitute a "subcultural" group as contrasted with the "pathological" group constituting of the lower-grade cases. The chief cause of mentally retarded in "subcultural" group is normal biological variation.

Penrose (1938) found that mental defect among the
parents and siblings of his patients was 7 to 9 percent. This was the case in endocrine disorders, epilepsy, psychopathy and Down's disease. Heredity is one of the important factor in mental deficiency. Families share not only genetic background but also a large number of other factors in their biological and social environment.

Berg and Kirman (1959) found that individuals with high IQ. were eligible for inclusion in the 'subcultural group' in fact suffers from a "diluted" form of a disease such as phenylketonuria, tuberous sclerosis or residual kernicterus, conditions giving rise to some of the grossest forms of mental subnormality.

In most of the cases of severe subnormality cerebral changes are present at birth while minority acquire lesions in early post-natal life. Severe congenital malformations seem to involve the nervous system more then any other part of body. Attempt have been made to estimate incidence of somatic and nervous malformations. Congenital malformations account for 15-20 percent of neonatal and infantile mortality (Lamy and Frezal, 1960), (McKeown, 1960).

Carter (1963) states, that in Britain anencephaly has an incidence of 2 per thousand and that of spina bifida is 3 per thousand of the total births. In most countries, congenital malformations of the nervous system take second place after cardio-vascular system. The neural malformation
in surveys include only the grosses of the readily recognizable forms, such as hydrocephaluses, gross microcephaly, Down's disease, anencephaly and spina bifida cystica. Most brain anomalies associated with mental retardation are much less obvious and the true incidence of neural malformation has therefore been considerably underestimated.

The arrest in the development of the brain is brought about by hereditary factors and environmental influences.

Tredgold (1963) divides the numbers into four groups namely (i) Amentia due to inheritance. The cause being due to the abnormality of the germ cell or due to endogenous or intrinsic factors is termed as primary amentia, (ii) Amentia due to environment. The cause of the mental defect is extrinsic or exogenous and called as secondary amentia, (iii) Amentia due to inheritance and environment, (iv) Amentia where there is no discoverable cause. According to Tredgold, 80 percent are of primary variety and 20 percent of the secondary form.

Zigler (1967) has given a two group model of mental retardation. The distinction between cultural-familial and physiologically defective mentally retarded individuals. Majority of children between 70 to 80 % diagnosed as mild to moderate retardation with no known genetic or physiological
impairment. The lower end of the normal IQ does not reflect pathological condition.

Grossman (1973) states that there are 4 criteria by which child is judged to exhibit retardation in this category. (i) child must question at a retarded intellectual and adaptive level, (ii) there must be evidence of retarded intellectual functioning in the immediate or larger family, (iii) there must be no clear indication of a cerebral pathological condition. (iv) the child's background will usually be impoverished, with standard education, housing and medical care.

There may be, but not necessarily, a history of prematurity, frequent infections, diseases and accidents, none of which account alone for child's slow intellectual and adaptive development. Thus, a diagnosis of retardation due to psychosocial disadvantage rests chiefly on the absence of neurologic symptoms and primarily on family background. (Robinson and Robinson, 1976).

(II) Environmental Factor

The environmental factors are varied and there may be physical injury to the brain during or after the birth, (e.g. German Measles), drug taken by the mother after conception and during early months of pregnancy, exposure to deep x-rays during early pregnancy and institutional etc.
The health of the mother during pregnancy may affect not only the physical but the mental health and development of the child.

Congenital Syphilis, once considered a major contributing factor are now very rare. (Berg & Kirman 1959). Among prenatal infectious, toxoplasmosis is seldom implicated. Many other noxious influences come to bear during pregnancy. Fedrick (1973) analyzed the role of anticonvulsants in this respect. It is now well recognized that drugs should be used as little as possible during pregnancy. Smoking during pregnancy has a statistically significant adverse effect on intellectual development. The same probably applies to alcohol ingestion, though some have claimed a foetal alcohol syndrome (Kessel 1977).

In most of the cases of subnormal intelligence no physical cause can be discovered. The child is quite sound physically & there is no trace of disease or injury that might have produced brain damage. Retardation in such cases is usually minimal, the individual suffers from a general deficiency rather than from any obvious defect. Such individuals usually come from families that are less in intelligence & live under impoverished conditions. This type of retardation has been called familial cultural, the cause is said to be both genetic and environmental. Genetic because persons of low IQ. marry other low IQ persons and
produce children whose intellectual potential is limited. Even because of inadequate nutrition and medical care, lack of intellectual stimulation and parental concern.

In cases of severe retardate some sort of physical cause like brain injury, disease or accidents of development can usually be identified. The mental impairment in such cases is related to brain damage and gross structural defects are often apparent in the nervous system. It has been proposed that such children be called mentally defective rather than mentally retarded.

Mentally defective individuals may occur in any family or any socio-economic group, regardless of genetic background. Any condition that affects the normal development of the brain can cause mental deficiency, physical damage to the brain or lack of oxygen (anoxia) during birth can result in intellectual impairment. Similarly, infections of the mother during the early months of pregnancy like German measles or syphilis or certain drugs taken during pregnancy can cause brain damage.

In general, research permits us to conclude that mild mental retardation, like other levels of intellectual functioning, is a product of both genetic and environmental influences. The correlation between children and natural parents IQ. scores remains essentially the same whether children are raised by the natural parents or not.
Causes of Behavior Problem

(I) Genetic Factor

The role of Genetic factor in the causation of behavior problems in children has always been a disputed territory. It is possible to conclude that a specific chromosome or a group of chromosomes contribute directly or indirectly to behavior problems in children.

Neilson (1970) suggested that male possessing XYY sex-chromosome structure tended to be aggressive, antisocial and delinquent. Hess (1970) stated that innate behavior is the necessary and sufficient condition for the survival of none, thus giving a clear perspective to genetics in the causation of behavior problems in children. Cantwell (1975), by means of adoption studies came to a conclusion that inheritance was responsible for "Hyperactivity" in children. (De Sousa A. 1987).

The hyperactive behavioral pattern is more commonly observed among boys than in girls. It also seems to have an increased familial incidence. These findings support a genetic role in the etiology of the behavior problem. Exactly how this is manifested neurophysiologically and biochemically is unknown.
Very few studies have been conducted to examine the role of genetic factor in the development of behavior problem. Several family studies have revealed that the relatives of hyperactive children have a higher incidence of psychopathology than the relatives of control children. Morrison and Stewart (1973) have found the possibility of a genetic factor relating to hyperactivity during childhood and certain psychological problem in adulthood. Twin studies conducted with normal children showed a strong genetic factor related to social introversion-extroversion (Scart 1969). No studies have examined the role of heredity in determining the incidence of social withdrawal in children.

Several researches focus on the cause of ADD being dysfunction within the Central Nervous System. Specific neuropathology of the involved areas of the brain still remained unidentified.

Although the specific cause of the condition is unknown, there are probably various causes. Historically, the cause was considered to be some form of brain damage and many children were diagnosed as having the syndrome of epidemic of Encephalitis Lethargica after the World War I. Since brain damage could not be demonstrated in many children with hyperactivity, brain dysfunctions which was possibly genetic in origin, were considered as possible etiological factors. Some evidence of the role of hereditary
factors has also been found.

(II) Parental Factor

It has long been recognized that parental attitudes and behaviors influence children's maladaptive behaviors. However, explanations of causality are usually vague. Chaotic home conditions of one sort or another have been associated with delinquency. Many investigators have cited parental psychiatric impairment as an important causal factor. Psychodynamic hypothesis linking parental psychological attributes and delinquency in children have tended to focus on the transmission of values and characterological traits from one generation to the next. The most influential of these hypotheses suggested that children unconsciously acted out parental antisocial wishes.

The attitude of the parents does contribute in a big way to the causation of Behavior Problems. All the faulty parental attitudes can be considered to be along the cross-axes of over-protection and Rejection. David Levy (1943) mentioned the following criteria as indicative of and contributing to over-protection: (a) the only child (b) the only son (c) a child born after many years of waiting (d) the first son, especially in a joint family (e) a very beautiful child and (f) a mentally handicapped or a physically ill child.
Rejection is the polar opposite of over-protection. The following are the causes of Rejection:

(a) an unwanted child
(b) an illegitimate child
(c) a step-child
(d) a physically or mentally defective child.

The attitude of the parent is often not consistent, but keeps fluctuating. At times, parents dote over their child, and at other times they completely reject their child. These times vary with the parents' mood, financial position, job satisfaction, inter-parental relationship etc. This state of affairs confuses the child, who keeps perceiving his parents differently, at different times and finds himself mistaken and frustrated. A parent, who is mentally abnormal in some way due to a disorder of thought, emotion or behavior is bound to exercise some influence on his child's "psyche" and thus develop a behavior problem.

Aggressive boys tend to come from families whose members get what they want by hitting, screaming, nagging, or complaining. Fathers of boys with aggressive conduct disorder are more likely to be aggressive and antisocial, than the father of boy with other emotional or behavioral problems.

Temper tantrums are often a sign of nervous fatigue in childhood. When a child does not get sufficient sleep and rest it may make him irritable and difficult to please. Lack of play in a child who is a bundle of energy makes him
restless, irritable, fussy over-excited and also adds to his restlessness. Over protection is an important cause of temper tantrums. Even emotional insecurity due to any cause may bring about temper tantrums. In a child who feels unloved and rejected, either in reality or in fantasy, temper tantrums are unconscious attempts on his part to test out reality.

(III) Environmental and Psychological Factors.

It appears that certain events may alter the probability of behavior problem in school settings. A number of researchers have noted that the hyperactivity syndrome becomes more apparent as environment increase in complexity. Thus environment with high levels of visual and auditory stimulation tends to increase children's activity levels. Hyperactivity itself may increase the probability of other behavior problems. A child who moves about the room is more likely to disrupt the work of others.

Psychological factor has traditionally been given the largest share of clinical and research attention as causes of school behavior problem. The children manifest problem that reflects psychological conflicts originating in the home environment. Support for this view has been derived from clinical data describing the parents. It is also observed that children who present behavior problems in school often display problem in home.
Although psychologists with a behavioral orientation often do not search for the initial cause of the problems, they do not attempt to discover the stimulus variables that are controlling the behavior.

Numerous studies suggest that teacher of such attention to inappropriate behavior may be responsible for maintaining some of the behavior. However, we do not have normative data to determine how often the teachers attention does maintain inappropriate behavior in the average classroom situation.

Causes of Behavior Problems in M.R.

Behavioral problem occur in mental retardation for almost the same reasons as that in the normal child. The retarded, due to their intellectual deficiency, conflicts and emotional disturbances are more liable to develop behavior disorders.

Sometimes the unwanted or disliked retarded child in the family may be rejected in many ways. This rejection tends to be reflected as hostility in the child. This is expressed in responses such as aggression, destruction, negativism, etc. The personality development of retarded can be influenced by parents or by individual close to him.
There is no doubt that retarded persons manifest wide and significant behavioral inadequacies. Although there are some differences as to the causation of these.

Zigler & Balla (1976) stated that such inadequacies are primarily due to motivational and emotional deficits, while most other authors supported more complicated causation that includes some process deficiencies.

According to Ellis (1978) few processes seem "Normal" in the retarded.

The relationship between behavior problems and level of retardation has not been clearly established. Eyman and Call (1977) in a study of approximately 7,000 people found that severely retarded individual exhibited more behavior problems than moderately and mildly retarded persons in institutions and community placements. Among the clients studied by Hill and Bruininks (1984), however, it was the moderately retarded group that displayed more maladaptive behavior.

In conclusion it can be said that behavioral problems associated with mentally retarded do not significantly differ from those found among the non-retarded population. Organismic and interactional factors which are responsible for the causation of behavioral pathology in normal children are not less deleterious to the emotional and mental health
of the retarded children. On the contrary, the retarded child, by virtue of his limited intellectual capacities, his meager coping ability and his prolonged dependency is more vulnerable than his normal peers.

Therefore mentally retarded have more risk of developing behavioral problems.

HISTORICAL PERSPECTIVE

In ancient times, when all mentally retarded were believed to be possessed by demons who could only be driven out by magic or prayers. Today it is no longer regarded as the curse of an evil spirit or as disgrace, but rather as one of nature's error.

In ancient times a lot of retarded children was a hopeless one; for example, society simply let them die of exposure. But even in those dark ages there were many courageous souls who did what they could for these forgotten children. In the fourth century people like St. Nicholas as the Bishop of Myra, renowned as the patron and guardian of young children gave tender care to these unfortunate children who were then known as "idiots" and "imbeciles".

In the early years the definition of mental retardation was based on a clinical impression of a gross developmental and functional delay. In this way only serious
mental retardation were recognized.

In the 16th century (1534) Fitzherbert made one of the first attempts to define mental retardation as "Idiot from his birth is such a person who cannot account or number 20 pence, nor can tell who was his father or mother, nor how old he is, etc., so it may appear that he hath no understanding of reason what shall be for his profit nor what for his loss." Thus Fitzherbert's test (1534) was the test of the capacity of the alleged idiot to count twenty pence, or tell his age or to tell who were his father and mother.

Swinburne (1591) proposed as additional criteria of capacity, among other tests, measuring a yard of cloth and naming the days of the week.

In the 17th century Willis recognized that there were different levels of mental retardation, some are unable to learn their letters but can handle mechanical arts; others who fail at this can easily comprehend agriculture; still others are unfit except to eat and sleep.

Pablo, J. (1620) a Madrid physician, revolutionized Spanish educational procedures by attempting to educate the mentally retarded. He was driven away from Spain because of the prejudice and stigma against mentally retarded persons.
Itard (1798), a French physician, became the first man to bring science to the aid of mentally retarded. In France he had come across a naked boy wandering alone, whose parents had abandoned him in boyhood. Dr. Itard did not believe that this wild boy was retarded, he decided to educate him by developing and training his senses. However he had to conclude, finally, that the boy was retarded, but fortunately for the future of education he had proved him educable and capable of social development. Itard's pioneering efforts were carried on by his pupil Seguin (1812-1880) based on his work on developing the senses.

In the first half of the nineteenth century (1838) Esquirol's view, approached the modern definition, except that the terms "Idiocy", which in the 19th century meant mental retardation, has now become a derogatory term. He classified idiots and imbeciles as separate entities taking speech or the lack of it as the criterion.

Many English writers used the word idiocy to include all states of deficient intellect in childhood.

Ireland (1877) used the terms idiots and imbecile inconsistently, but usually wrote idiot to include the higher grade of imbecility.

Seguin came to United States and assisted in setting
up the first three great state institutions for the mentally deficient, those of Massachusetts, New York and Pennsylvania. His ambitious hope was to cure mental deficiency, but he failed in achieving his goal. In 1837, Seguin opened a school for retarded children in Paris which was the first of its kind. He called his teaching "the psychological method - the whole training of the whole child". He lectured widely and wrote many books.

In England the training and care of mental defectives was considered a worthy object of charity. Andrew Reed's efforts in 1840 at training mental defectives resulted in the foundation of the first Asylum for idiots.

In 1845 parallel developments took place in Massachusetts, U.S.A. by Dr. Samuel Woodward.

In 1890, special classes in public schools were started in U. S. A. for the first time. The most severe and obvious forms of mental subnormality were covered by the term idiot and imbecile, while the less severely affected were not recognized as mentally subnormal, but were regarded as lazy or wicked.

In essence, the period 1850 - 1900 was the era of large isolated institution for lifelong segregation of retardates.
For the first time in 1901, the category of "Feeblemindedness" was included in the census. It was recognized and declared by householders or workhouse masters to be feeble-minded.

About 1930, parents of mental retardates began to help each other. Parent's organizations spread rapidly from state to state. Yet there was still many a retarded child who because of shame or ignorance on the part of his parents, was hidden in some curtained back room.

The term subnormal came into common use in Britain following the 1944 Education Act. This term was introduced on educationally subnormal children. This group of children included the brightest fraction of those previously covered by the Mental Deficiency Act 1927.

In 1950, The National Association for retarded children was organized in U. S. A. They also organized preschool classes, recreation programmes, sheltered workshops, occupational training centers and programmes of parents guidance and public education.

**Measurement of Mental-Retardation**

The era 1850-1900 was inaugurated by Pereire, Itard and Seguin. Alfred Binet was one of the four great names among benefactors of retarded.
The period 1900-1950, reflected, the first development of intelligence test special classes in the public schools and an aroused interest on the part of the parents of the retarded.

Binet established the first Psychological laboratory in France. In 1904 he was named by the minister of Public Institution, to head a commission to find out what could be done to assure retarded children from the benefits of schooling. The first step was to determine which children would be candidates for special institution. In Paris, as throughout the world, such decisions were made largely by guesswork. As Binet said, "The judges make judgments haphazardly on the strength of impressions that are subjective and consequently uncontrollable, that are sometimes good and sometimes bad, and that made up too largely of high-handedness, caprice and carelessness". (Hutt & Gibby 1965)

Binet had spent many years studying retarded children in the schools and hospitals of Paris. He noted that there were three ways to judge mental inferiority: (i) medical method (physical sign) which is indirect, (ii) pedagogical (school room success) which is more direct and (iii) psychological (direct observation) which is the most direct of all.
In 1904, Binet developed a psychological test with the help of Simon to identify those children in the Paris school systems who were at risk of failing in the standard educational programme.

In 1905 Binet published his conclusions in an article in a Psychological Journal on the necessity of establishing a Scientific Diagnosis of Inferior states of intelligence.

Binets 1905 tests reached America in 1906, but attracted little attention. In the same year, the Research Laboratory at "The training school at Vineland, New Jersey was established with Dr. Henry H. Goddard as Director. In 1908, Dr. Goddard made a visit to Europe with the interest of research, and there he learnt about Binet's tests. On his return to Vineland, Dr. Goddard, although highly skeptical to know the practical value of the scale, tried it on the boys and girls at Vineland. He was surprised to find that the classification of the children, according to the results of Binet's test, corresponded closely with their grading.

Dr. Goddard there upon became the leading exponent of the tests in America. In 1908 he published a brief account of the 1905 tests. In 1910, he presented an abstract of the 1908 scale. Binet died in 1911. In 1916, with the permission of Dr. Simon, a complete translation of the 1908 article of Binet Simon was published by the Training School
under the title, "The Development of intelligence in children". In the same year a comparison volume was also published, giving a translation of Binet and Simon's work namely "The intelligence of the Feeble-minded".

Through Dr. Goddard's sponsorship the Binet-Simon Scale gained wide currency, both in America and in all parts of the world, with modifications and operations and became the standard method of classifying the retarded according to intelligence levels. Goddard made the Binet tests practical and applied them to thousand of normal and retarded children.

Concept of Mental Age

Mental Age is a notion introduced by Alfred Binet for measuring the child's intellectual development. A specific mental age expresses the average intellectual attainment of children of that chronological Age (C.A.). The concept is used routinely in intelligence tests in which test items are arranged according to age levels. Items are tested on representative groups of children at successive age levels. When such a test is administered, the child assessed on all the items in the range of his abilities. Mental age score is thus obtained by adding to the Basal age level credit for each item passed at any age level above it.

Dr. Goddard who was one of the first to introduce the
works of Binet and Simon in America has considerable experience in applying the Binet-Simon Scale to institutionalized patients. Hence in 1910, he recommended to the American Association a system of classification for the study of the feeble minded which were based on the test ratings. They are as follows.

(i) Idiots

Those with a mental age up to and including age up to and including two years.

(ii) Imbeciles

Those with a mental age of three to seven years.

(iii) Morons

Those with a mental age of eight to twelve years.

This classification which was adopted by the American Association unfortunately gave the general impression that all adults who were found to have a mental age of twelve years, or less on the intelligence tests were to be regarded as "feebleminded".

Dr. Goddard himself later explained that the upper level of mental deficiency was placed at twelve years, because a survey of institutionalized patients showed that this mental age was the highest among these patients.

Later, Terman, Yerkes, et al., extended and revised
the scale and also introduced improved methods of scoring. Dr. Terman's revision of the Stanford Scale made the tests usable and the scoring much more accurate. The Binet Scale gave the measure of intelligence only in terms of mental age, which implied a varying degree of deficiency or superiority depending upon the chronological age.

Terman introduced a further refinement, namely the Intelligence Quotient or IQ. This measure is obtained by dividing an individual's mental age by his chronological age and multiplying it by 100.

Thus the Binet-Simon Intelligence test after many improvement is now known to us, as the Stanford-Binet Intelligence Scale for children between three to sixteen years of age. The ratio of mental age as determined by the tests and the chronological or actual age, expressed in terms of percentage constitutes intelligence quotient (IQ).

Development Of Awareness And Care Of The M.R. In India
Numerous authorities in the field of mental retardation have offered their definitions. The definition most widely used in India are the one's given in DSM III & AAMD (American Association of Mental Deficiency). These are also accepted by W.H.O. According to W.H.O. mental retardation is defined as "Significantly subaverage general
intellectual functioning, resulting in, or associated with deficits or impairments in adaptive behavior. Mental retardation poses a major social problem because it requires special training facilities and procedures while in some instances institutionalization is advisable.

The first pioneering work in this field was started in the city of Bombay and now it has expanded greatly in Maharashtra state. Other states have also taken steps to tackle the problem of the mentally retarded.

All India Association on Mental Retardation was founded in 1965 at Chandigarh. In 1966, the first all India conference on Mental Retardation was organized by voluntary societies and was inaugurated by the former Prime Minister Mrs. Gandhi in New Delhi. The federation for the welfare of the mentally retarded was formed at this conference. Most of the members of the federation were the workers of All India Association on Mental Retardation. The initiative taken by the Federation and the Association also stimulated the postal and Telegraph departments to highlight social problem of the mentally retarded by issuing a commemorative postage stamp on the 8th December 1974. This day is observed as the National day of the mentally retarded every year.

Institution for the Mentally Retarded in India:

In 1934, the oldest existing facility in the form of psychomedical rehabilitation was established at "The central
Nursing home" at Ranchi in Bihar. Though this institution primarily provided facilities for the non-retarded it also opened its doors to the retardates as well. In 1941 a home specially for the mentally retarded known as the "Home for Mentally Deficient children" was established by Children's Aid Society in Bombay. This was the first Home of its kind in the country. The first special school to provide special education was the "School for Children in Need of Special Care" at Sewri in Bombay which was established in 1944.

There are about 162 known institutions in the country providing 10,000 beds for a population of about 20 million mentally retarded people. These institutions / organisations are engaged in the care and training of the mentally retarded and they are run by Government or Voluntary organisations.

Assessment of M. R. in India

In India, the most wildly used individual intelligence tests are the Kamat Intelligence Test and Bhatia's performance test for ages from eleven years onwards. The Department of child Development of Baroda University has developed Bayley Infant Scale to assess the mental development of children from birth to two and half years.

The Seguin Form Board, Knox's Cube Imitation Test and Raven's Progressive Matrices tests are other notable non-verbal tests which are commonly used in the country. Pathak,
P. (1966) developed the Draw-a-person test which is a part of the psychological battery administered routinely to all mentally retarded. Besides these the Bender-Gestalt test (B.G.) and Vineland Social Maturity Scale (V.S.M.S.) are also widely used. Father Malin from Nagpur has made an adaptation of the V.S.M.S. upto 15 years of age.

According to American Association on Mental Deficiency (1973) about 2% of the total population, that is, four million out of 200 millions are mentally retarded in the United States. There is no reliable statistics available, regarding the prevalence and incidence of mental retardation in India. Findings of few random sample surveys in the cities of Bombay, Calcutta, Delhi, Mysore, Nagpur and also W.H.O. reports indicate that the number of mentally retarded in India can be estimated to about 3% of the total population, that is, roughly 20 million people, out of which about 1.5 to 1.8 million children are of the age group of 6 to 14 years. According to IQ. distribution, around 75% are known to be only mildly retarded, another 20% moderately retarded and only 5% beyond any hope who need custodial care.
Special subtypes and classification of Mental Retardation.

According to DSM III (1980) the subtypes that reflect the degree of intellectual impairment are designated as follows:

<table>
<thead>
<tr>
<th>Subtypes</th>
<th>IQ</th>
</tr>
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<tbody>
<tr>
<td>(1) Borderline intellectual functioning</td>
<td>71 - 84</td>
</tr>
<tr>
<td>(2) Mild - Educable</td>
<td>50 - 70</td>
</tr>
<tr>
<td>(3) Moderate - Trainable</td>
<td>35 - 49</td>
</tr>
<tr>
<td>(4) Severe - Dependent</td>
<td>20 - 34</td>
</tr>
<tr>
<td>(5) Profound - Totally dependent</td>
<td>below 20</td>
</tr>
</tbody>
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For the purpose of the present study, two subtypes of intellectual impairment were selected. These are borderline and Mild categories. These two categories are described in detail in the following section.

(1) Borderline intellectual functioning:

According to the old terminology (Terman 1908) this category was described as "Dull child" and after several classification and revision the terms "Borderline" was forwarded.

These children are those in whom the intellectual development is low but not so low as to amount to mild category. They form an important group in the school population and popularly known as the back benchers. A diagnosis of borderline does not necessarily imply that the
child is without life or spirit, slow in his movements or sleepy. Many children of these group, despite their limited intellect are mentally alert and consequently a source of puzzlement to their parents or teachers who find it hard to understand, how they can be astute in practical things. Yet extremely dull in abstract matters they make very little progress in school work even though they display so much interest and activity.

These children have difficulty in keeping pace with the ordinary schools, but are comparatively brighter than a Mild child who is fit for studying in a special school. Such children should be detected early so that their delinquent tendencies are checked and controlled and they receive special training and education, thus preventing deterioration in their personality by repeated failures and punishment.

(2) Mild Mental Retardation

The old term for Mild-Mental-Retardation was feeble-minded. The feeble-minded have higher grade of mental deficiency and are defined as "persons in whose case there exist mental defectiveness which though not amounting to moderates" (DSM III). They require care, supervision and control for their own protection.

This category is roughly equivalent to the special educational category "educable". Mentally retarded children
of this level can develop social and communication skills during the preschool period, have minimal impairment in sensorimotor areas and are often not distinguishable from normal children, until at later age. They can achieve social and vocational skills adequate for minimum self-support, but guidance and assistance is needed when they are under unusual social or economic stress. The group of mildly mentally retarded makes up the largest segments about 80% with disorder. These children can learn up to sixth-grade level in skills. They appear to be permanently incapable by reason of such defectiveness of receiving proper benefit from the instruction in ordinary schools. They are often referred to as needing special education.

The presence of mental defect may not be detected or even, in some cases, suspected during the pre-school age. Milestones of development are delayed but not to the same extent as is the case of low grade defectives. Attention, interest, memory and understanding are not developed to a normal degree. They can do unskilled work which is routine and mechanical. There is subnormal scholastic capacity and the range of general knowledge is limited, they lack ordinary judgment and discrimination.

(3) Moderate Mental Retardation

Such M.R. children are backward in their development but able to learn to care for themselves. They are capable
of being trained. Adults need to work and live in sheltered environment. This group is considered as "trainable" who are able to learn simple daily skills. The children belonging to this level can talk or learn to communicate during the preschool period. They have poor awareness of social conventions. They need supervision and guidance even under mild social and economic stress.

(4) Severe Mental Retardation

Children belonging to this category show retarded motor, speech and language development and this makes them completely dependent. Though these children have poor motor development they are often, but not always physically handicaps.

They may learn to talk and can be trained in elementary hygiene skills, but are unable to profit from vocational training. They may be able to perform simple work tasks under close supervision during adult years but cannot earn an independent livelihood. Memory, concentration, attention and perception are very poorly developed. Emotions are expressed in their most primitive states.

(5) Profound Mental Retardation

These children are often physically handicapped. They need constant care and supervision for survival. This is the lowest grade of mental deficiency. They are prone to many disease such as paralysis, athetosis, convulsive attacks,
tremors and their life-span is very short. They display minimal capacity for sensorimotor functioning.

Clinical types of M. R.

The clinical types of mental deficiency resulting from parental influences are:

- Mongolism
- Cretinism
- Microcephaly
- Macrocephaly
- Hydrocephaly

Mongolism

This type of deficiency constitutes the largest category in the prenatal group. The child's slanted eyes suggest the appearance of a Mongolian. They are usually of affectionate disposition and seem to take special pleasure in aping the behavior of those about them.

Cretinism

Cretinism results from improper functioning of the thyroid gland. Most frequently it is due to lack of iodine in the mother's diet, though birth injury and certain diseases may also produce it in less forms.

Microcephaly

In this condition, the skull is usually small in circumference & conical in shape, with the forehead and chin markedly receding. They also show limited development of cerebral tissue.
Macrocephaly

This condition is caused by an outgrowth of the glia cells. These cells are only supporting structures & do not carry nerve impulses.

Hydrocephaly

In this type, the face remains of normal size, but the skull above it has a bulging effect. Hydrocephaly results from an obstruction in the verticular system of the brain which causes an abnormal amount of cerebrospinal fluid to collect in the cranium. The result is damage to brain tissue with consequent enlargement of the head.