CHAPTER - I

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EUNICE K. SHRIVER, "The future of Mentally Handicapped depends on the action of aroused and dedicated citizens. The only question will be, who offered hope and encouragement in their darkest hour and who will be regarded as a stranger". The present research is to study the effectiveness of behaviour modification in the management of temper tantrums in mentally retarded children.

Mental Retardation has been a central area for research and clinical practice for behaviour modifiers and therapists. Much of their early application of learning principles has focussed on this population, and much of what we know and do, springs from the research with this group. Such procedures as the token economy, overcorrection, a good deal of the self-control and regulation literature, and many of the early differential reinforcement of other-behaviour (DRO) studies are among those that have emerged from this research. It should also be noted that behaviour modification therapy has become the dominant mode of treatment for mentally retarded persons. As recently as the early 1960's, people who evinced mental retardation were all too often considered unteatable. The present research is an attempt to change
of behaviour modification in treating temper tantrums in mentally retarded children.

1.1 HISTORY OF MENTAL RETARDATION

Throughout the ages there have been persons who were noticeably different because of mental retardation. Such persons often were a source of wonderment, fear, amusement and superstition. Their story is largely unrecorded in the annals of history. An almost sudden interest in "mental defectives" flared up in the first half of the 19th century spreading from France and Switzerland to the rest of Western Europe and the United States and Canada. The early investigators derived much of their inspiration from Jacob Rodrigues Pireire. In 1747, Rodrigues demonstrated the incredible by teaching a deaf-mute child to read and speak. About 1800, a young man, Jean Marc'ltard, was recognised as having made a positive contribution by proving that even a severely mentally retarded persons could improve their mental state by appropriate training. Guggenbuhl (1840), with unflagging effort, set about establishing a centre for the teaching and medical treatment of mentally retarded children. In 1844, Edward One Samuel Seguin, made an attempt to educate an "idiotic boy", at the end of which his pupil was able to make better use of his senses, speak, write and count. Canada's first centre for mentally retarded persons was opened in 1873. For over thirty years the field of mental retardation drifted on the momentum of "menace" ideology, and the social programmes developed in 1900's. In India, first special education centre
started in Bombay in 1943. By the late 1970's with the potential of community services clearly demonstrated, people began to openly suggest that institutions could be phased out of existence. The 1960's have seen the rise of the "human rights" movement across the world. The impetus of current planning today is toward programs of prevention and the provision of comprehensive services in the community.

1.2 EARLIER CONCEPTS OF MENTAL RETARDATION

Defining retardation is a complicated task. The problems exhibited by individuals who have been labeled retarded can be extensive, affecting many areas of human functioning. One problem encountered in surveying behaviour modification and therapy in the field of retardation is that retardation is a diagnostic term. As such, it identifies a category of people rather than a specific set of behaviours - the real domain of behaviour modification. Bijou (1963) and Lindsley (1964) have stated that behaviours, as opposed to individuals, are retarded. Bijou (1963), offered a natural science definition of mental retardation. He defined mental retardation in terms of the operant conditioning model - a person who is mentally retarded is one who has limited repertory of behaviour evolving from interactions of the individual with his environmental contacts which constitutes the history.

Niswonger & Smith (1974), used an alternative approach, simply to use the term retardation to refer to a condition in which there is a generalized
delay in a wide range of behavioural domains. Mental retardation considered a medical disorder in the early 1900’s Matearayzo, (1972). In the words of Scheerenberger (1983), mentally retarded persons were judged by five standards prior to the development of intelligence tests. They are (1) Physiognomy, (2) use of age, (3) Quality of school work, (4) Physical conditions and (5) Physical signs. Gearhart & Lutton (1975), pointed out that the treatment and education of mentally retarded individuals has changed considerably over the years, alternating between compassionate concern and neglect and ridicule.

1.3 ALTERNATIVE CONCEPTS OF MENTAL RETARDATION

In 1905, Alfred Binet and Theodore Simon of France published the first mental test that would become known as an intelligence test. The second Binet scale was produced in 1908 and introduced the concept of mental age. The third scale was published in 1911 which included a number of content revisions. Terman (1916), standardized it in United States and began to use it to identify individuals with various levels of intelligence. It was called Stanford-Binet Intelligence Test. Terman was the first to use the measure Intelligence Quotient (IQ) that was developed by Stern (1912).

In England, Tredgold (1908, 1937) took the position that social inadequacy was also a necessary condition for mental retardation. Doll (1941).
supported the notion that social incompetence was a necessary criterion for a person to be considered mentally retarded

THE 1959 / 1961 AAMD DEFINITION

The AAMD has been a primary definer of mental retardation for over one hundred years. In 1959, Heber published a definition for the Association Two years later, there was a slight revision in the definition. Heber (1961) defined it as follows

'Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with adaptive behavior'.

Mercer (1970, 1971, 1973), viewed mental retardation from a social perspective rather than from a psychological or educational viewpoint. Mercer (1973), stated that, according to the sociological definition mental retardation is an achieved social status in a social system.

Dunn (1973) suggested the schools to use the term "mild general learning disabilities" instead of "educable mentally retarded".

Kolstoe (1972), considered mental retardation to be an arrested state of cognitive development that concomitantly rooted in inadequate neurophysiological development. Kolstoe's conceptualization was based on a
combination of Jean Piaget's theory of qualitative changes in cognitive process (c.f. Flavell, 1963; Ginsburg & Opper 1969) and Hebb's (1949) theory of neurological organisation. He pointed out that the mentally retarded subjects had not been able to achieve Piaget's level of formal operations.

1.4 TRADITIONAL VIEW OF MENTAL RETARDATION

Mental retardation, mental deficiency mental subnormality and mental handicap are the terms used to refer to the same condition. The terms used in the past such as amentia, idiocy, feeble minded, moron, imbecile and oligophrenia are now obsolete. A fundamental distinction has to be made between intellectual impairment starting in early childhood (mental retardation), and intellectual impairment developing later in life (dementia). In 1845 Esquirol made this distinction when he wrote that idiocy is not a disease but a condition in which the intellectual faculties are never manifested or have never been developed sufficiently to enable the idiot to acquire such an amount of knowledge as persons of his own age and placed in similar circumstances with himself are capable of receiving.

At the end of the nineteenth century a significant advance was made when methods of measuring intellectual capacity became available. Early in the twentieth century Binet's celebrated tests of intelligence provided quantitative criteria for ascertaining mental retardation. These tests also made it possible to identify mild intellectual retardation that might not be obvious
otherwise. Similar views were reflected in the legislation of the time. In 1886, the Idiots Act had made a simple distinction between idiocy (more severe) and imbecility (less severe). In 1913 the Mental Deficiency Act added a third category for people who from an early age display some permanent mental defect coupled with strong vicious or criminal propensities in which punishment has had little or no effect.

Although there have been a number of historically significant definitions of retardation, the most commonly accepted one today was developed by the American Association on Mental deficiency. According to Grossman (1977), mental retardation "refers to significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during the developmental period." This definition refers to a delayed or deficient level of behavioural performance without reference to actual or presumed causes. "General intellectual functioning" is defined as the results obtained by the administration of standardized general intelligence tests developed for the purpose, and adapted to the conditions of the region or country. "Significantly subaverage" is defined as IQ of 70 or below on standardized measures of intelligence. The upper limit is intended as a guideline, it could be extended to 75 or more, depending upon the reliability of intelligence test used. "Adaptive behaviour" is defined as the degree with which the individual meets the standards of personal independence and social
responsible of his age and cultural group. The expectations of adaptive behaviour vary with the chronological age.

Retardation is a problem of major social significance, as prevalence estimates range from 1% to as high as 11% or 12%, based on projections from the normal distribution of intelligence scores and from empirical studies. Dingman and Tanen (1960) indicated that the actual prevalence may, in fact, be higher. The actual factors contributing to prevalence make this figure vary across geographic regions, sexes, age, and so forth.

1.5 TRADITIONAL VERSUS BEHAVIOURAL CONCEPTUALIZATION OF MENTAL RETARDATION

Historically, there has been considerable agreement about what retardation is. Early definitions put forth by Tredgold (1937), Doll (1941), and Kanner (1957), focused on retarded individuals' inability to adapt to their surrounding environment because of their "mental deficiency". Terman & Merrill (1973). Weschler (1955) suggested that the development of the intelligence test led to definitions of retardation emphasizing intellectual rather than adaptive behaviour problems.

From a more behavioural perspective, Whitman et al. (1983) defined a retarded person as an individual who has one or more response deficiencies that, at least in part, are produced or maintained by the environment in
1.7 TEMPER TANTRUMS

It is well documented that one of the more prevalent, chronic, and socially disruptive problems among those with mental retardation is that of tantrum behaviour and related difficulties of conduct. Temper tantrums may be defined as an uncontrolled outbursts of kicking, screaming, rolling on the floor, throwing objects and breath holding which is dramatic. Immature individuals with persistent personality problems may fail to develop mechanisms to inhibit temper tantrums they displayed as children. Particularly, if childhood tantrums produced the desired results, learned tantrum behaviour may persist into adult life. Although such individuals may be extremely pleasant and sociable when things are going well, they often lack the capacity to tolerate frustration and are easily provoked by threats to self-esteem and self-image and by not having their own way. In these situations they may act like bullies and lose their tempers easily, exhibiting aggressive behaviour - glaring, snarling, yelling, shouting, intimidating, pouting, sulking and sometimes being physically violent. Repp and Brulle (1981) pointed out the usefulness of a range of behavioural procedures in treatment of clinically significant problems of aggression and related problems of conduct presented by persons with mental retardation.
1.8 NATURE OF BEHAVIOUR MODIFICATION

The development of behaviour modification principles and procedures and the ensuing research have had a dramatic impact on services for mentally retarded persons. The field of behaviour modification, or applied behaviour analysis, is distinguished from other approaches in several ways. Behaviour modification is a term that applies both to an orientation to clinical problems that is conceptually consistent with experimental psychology and to a number of behaviour change techniques that have the goal of changing human behaviour in a beneficial manner. The learning concepts that provide the basis for most of the behaviour modification work with the mentally retarded are those derived from the operant conditioning model of Skinner.

According to Kazdin (1978), "Behaviour Modification is the application of basic research and theory from experimental psychology to influence behaviour for purposes of resolving personal and social problems and enhancing human functioning."

Impairments in adaptive behaviour is a component of mental retardation according to American Association on Mental Retardation. The impairments in the adaptive behaviour may be either a deficit behaviour or an excess behaviour. Behaviour modification programmes should be implemented to correct the impairments in the adaptive behaviour. There are five main steps in implementing a Behaviour modification programme for understandable
and deficit behaviours. They are (i) Identification of the problem (ii) defining target behaviours (iii) behaviour recording (baseline and treatment) (iv) functional analysis and (v) treatment procedures and their evaluation.

Michael (1987), pointed out that there are two relations describing behaviour and the environmental conditions surrounding it; respondent functional relations and operant functional relations. In part, behaviour is a function of its consequences. This relationship between the operant response and the environmental consequence is termed a contingency. There are two types of consequent stimuli: reinforcing stimuli and punishing stimuli. Both sets of stimuli are operationally defined by their effects on behaviour. Positive reinforcement occurs when an environmental event follows a behaviour and, as a result of such a relationship, the future probability of that response is maintained or increased. Punishment is operationally defined as an environmental event that follows a behaviour in a contingent fashion and as a function of this contingency, the behaviour decreases in level or probability. Events that follow behaviour that produces the opposite effect of reinforcers are termed punishers.

In (1975), Reynolds, considered that behaviours can increase by two contingent operations: (1) by producing a stimulus (positive reinforcement), and (2) by removing a stimulus (negative reinforcement). Positive reinforcement is referred to as reinforcement. Negative reinforcement is defined
as the withdrawal of a response contingent upon the occurrence of a behaviour, with the subsequent increase in the rate of that response.

1.9  **BEHAVIOUR MODIFICATION TECHNIQUES**

There are three general classes of behaviour modification procedures, each related to a type of behaviour change.

Firstly, procedure for establishing a new response.

Secondly, procedures designed to increase the strength of behaviour and to ensure the continuation of the behaviour in future settings.

Thirdly, procedures for decreasing the strength of behaviour.

1.9 (a)  **TECHNIQUES FOR ESTABLISHING & STRENGTHENING BEHAVIOURS**

These are based primarily on the principles of reinforcement. Behaviour is often determined by its consequences. We tend to continue a particular behaviour if its consequences are pleasant. Children learn by encouragement, praise and rewards. This is known as reinforcement. There are three types of reinforcers.
Primary reinforcer

These are reinforcer which are essential for life. Eg. food, drink, sleep etc.

Secondary reinforcer

These are events or objects which have the property of a reinforcer because of pairing with a primary reinforcer. Eg. money, points etc

Social Approval

Forms of social approval such as verbal praise, attention, and physical contact have been used effectively in working with retarded individuals

1.9 (b) TECHNIQUES FOR ELIMINATING OR DECREASING UNDESIRABLE BEHAVIOURS

Punishment is operationally defined as the presentation or withdrawal of an event after a behaviour that decreases that behaviour. The two primary techniques of punishment by removal are response-cost and time-out from positive reinforcement.
Time-Out

According to Solnick, Rincove & Peterson (1977), time-out meant time-out from positive reinforcement. One of the major conditions of effective time-out is that the environment from which the individual is removed must be more reinforcing than the time-out environment.

Response Cost

This procedure is used with individuals who are on token programmes for teaching adaptive behaviours. When undesirable behaviour occurs, a fixed number of tokens, or stars, or points are deducted from what the individuals have already earned.

Over-Correction

Foxx and Azrin (1972) developed relatively new punishment procedure called over-correction. Over-correction is a specific type of mild punishment designed to minimize the negative reactions caused by intense punishment. There are two components in an over-correction procedure. The first is to over correct the environmental effects of an inappropriate act, and the second is to require of the individual an intensive practice of overly correct forms of relevant behaviour. The first component is referred to as restitutional overcorrection and the second is called positive practice.
Extinction

Extinction means withholding reinforcement for a response in order to decrease the frequency of that response. Often, this means no longer providing attention for inappropriate responses that have been inadvertently reinforced.

Other behavioural tactics such as prompting, fading, modeling, behavioural rehearsal, systematic desensitization, and self-control procedures have been used with the retarded. These behavioural tactics have been used in treating behaviour problems in general but not temper tantrums alone. Hence, the researcher felt that treating temper tantrums should be studied.

1.10 MAJOR AIM OF THE PRESENT RESEARCH

The present researcher is keen in investigating the effect of behaviour modification in the management of temper tantrums in the mentally retarded children.

Main aim of the present research is to find out if there is any significant difference between the pre, post and follow-up ratings of temper tantrum using reinforcement, punishment and both.
1.11 OVER VIEW

Mental retardation is a problem that has alarmed the society to a large extent. It is considered that 2% of the population constitute persons with mental retardation (NIMH).

Mentally retarded children needs constant care and supervision throughout their lives. Public should be made aware of this problem and preventive measures should be taken. Mental retardation cannot be cured only training is the alternative. Behaviour modification techniques plays a vital role in training the mentally retarded. The present researcher is aware of the various problems faced by the parents of mentally retarded children which has paved way for the present research.

Until recently, most of the studies done were concerned with the behaviour problems in general. Behaviour therapists or other professionals did not consider the treatment of major behaviour problem - temper tantrum. Since temper tantrum is the common behaviour problem found in the mentally retarded and since very little has been done, this present study is aimed at achieving the objectives using behaviour modification procedures in the management of temper tantrums in the mentally retarded.