CHAPTER I

INTRODUCTION

Development is the key concern of all nations. It depends, to a large degree, on the integrated development of children of that country, who are its most valuable resource. India is the second most populous and the seventh largest country in the world. There are about 121 million children in the age group of 0-6 years constituting about one-sixth of the total population (Census of India, 1981). Majority of these children live in impoverished conditions which impede their physical, mental, social and psychological development.

Early childhood period is a crucial period in the growth and development of an individual. Foundations of physical, mental, social and psychological development of a child are laid down during this stage as during this period the growth and development is very rapid. Damage or impoverishment suffered at this stage is likely to be irreparable. The child becomes what he has to become during the first four or five years of life (Freud, 1936). Erikson (1964) has concluded from clinical studies of children from birth to maturity that "childhood is the scene of man's beginning as a man, the place where our particular virtues and vices slowly but clearly develop and make themselves felt."
Case studies of the maladjusted children from pre-school years through high school or college years have revealed that most of them were so poorly adjusted as young children that they neither belonged to any group nor had any friends. These children were regarded by their families as "problem" children (Crumley and Blumenthal, 1973; Gagne, 1971; Smith et al., 1972). Potential delinquents could be identified as early as two or three years of age by their anti-social behaviour (Glueck, 1966).

Studies in several areas of development revealed that early patterns persisted relatively unchanged as time goes on (Kaplan and Pokorney, 1972). Bijou (1975) concluded:

Most child psychologists have said that the pre-school years, from about 2 to 5, are among the most important, of all the stages of development and a functional analysis of that stage strongly points to the same conclusion. It is unquestionably the period during which the foundations are laid for the complex behavioural structures that are built in a child's life time.

Hence, there is no difference of opinion regarding the importance of early years in the life as these are the root years of all kinds of learning. Therefore, early detection of aggression and other behaviour problems with every possible intervention is of prime importance in reducing the risks of secondary problems and helping children.

Pre-school period demands greatest care from both, i.e., the parents and the community. In the absence of such care
the children might suffer from lack of socialization, illiteracy, and unhygienic living conditions as majority of them live in impoverished conditions in rural areas and urban slums. This may further develop abnormalities decreasing the capacity to get along with the main stream of life. The unfavourable circumstances, in the absence of proper guidance, might even lead the child to become a delinquent or acquire aggression and other behaviour problems. Thus, keeping in view the importance of early years of life, and prevailing unhygienic atmosphere in rural and urban slums, the investigator felt inspired to conduct study on pre-school children coming to anganwadi centres located in slum areas.

In India, majority of child population, as indicated above, live in rural, tribal and urban slum areas. Children living in these areas don’t get proper guidance and healthy atmosphere at home. Due to unhealthy and unhygienic atmosphere at home, many children become victims of various behaviour problems such as hyperactivity, aggressiveness, norm violation, non compliance, social withdrawal, disruptive behaviour etc.

Of these behaviour problems, aggressive behaviour is the most troublesome problem and is of key concern for parents and teachers. The severity of the problem of aggressive behaviour and its dire necessity to be dealt with, prompted the investigator to select aggressive behaviour for the intervention purposes. Aggression can be defined in many different ways (Bandura, 1973) but here it is considered to
be behaviour intended to cause injury or pain (physical or psychological) to others or to self, and to destroy property. Nearly all children, especially young ones, exhibit aggressive behaviour, but many disturbed children perform aggressive acts more often than do normal children (Patterson et al., 1975).

Aggression may involve hitting, biting, scratching, teasing, name calling, derogatory comments, and a variety of other specific behaviours. Children may direct aggressive behaviours towards others, or towards themselves. Self-injurious behaviour is a fairly common characteristic of severely and profoundly disturbed children. Such children bang their heads, bite or scratch themselves, or hurt themselves intentionally in a variety of other ways. Sometimes their self-inflicted injuries are minor; sometimes they are serious enough to threaten loss of limb or life (Bachman, 1972; Lovaas, 1982a).

Aggression can be eliminated or reduced through many ways such as chemical or surgical means or direct physical interference with person's movement. None of these is based on psychological principles nor for that matter, are certain brutal approaches to disciplining children for which legitimization and respectability are sometimes sought, by calling them programmes of behaviour modification. Various behaviour modification techniques are employed to eliminate or reduce
aggressive behaviour of children. To produce more permanent changes in aggressive behaviour dual approach is aimed at weakening aggressive responses and strengthening more socially desirable behaviours to take place. To be more specific, aggressive responses are eliminated or reduced through positive reinforcement, extinction and punishment procedures. Positive reinforcement includes differential reinforcement of compatible behaviour (DRC), differential reinforcement of incompatible behaviour (DRI), differential reinforcement of other behaviour (DRO) and differential reinforcement of low rates of behaviour (DRL). Punishment procedures include over correction, timeout, response cost, and aversive stimulation. Various combinations of these methods are also used to decrease aggressive responses.

DRC involves the application of reinforcement contingent on a specific response, the emission of which does not prevent simultaneous occurrence of the behaviour targeted for reduction. This technique has been used successfully (Lovaas et al., 1965a; Gavino et al., 1985; and Schneider et al., 1979) to reduce aggressive behaviour of children. On other instances, this technique could not reduce aggressive behaviour (Young and Wincze, 1974).

DRI schedules are based on the rationale that rewarding behaviour which is incompatible with the appropriate behaviour, rather than just an alternative will be more effective. For
every undesirable behaviour, there is a directly opposite or more appropriate desirable behaviour which could take place. DRI schedule successfully reduced aggressive responses (Peterson and Peterson, 1968; Tarpley and Schroeder, 1979; Tierney, 1986) as well as other behaviour problems such as uncooperative play, tantrums, hyperactivity, and disruptive classroom behaviours (Hart et al., 1968; Browley et al., 1969; Twardosz and Sajwaj, 1972; and Winett and Roach, 1973). Negative results with DRI have also been reported (Risley, 1968; Martin et al., 1971).

DRO is a procedure in which positive reinforcement is applied contingent on time periods with no display of the targeted aberrant behaviour. DRO was used successfully to reduce aggressive responses (Allen and Harris, 1966; Ragain and Anson, 1976; Repp et al., 1976). On the other hand, increases in aberrant responding such as yelling, running, throwing objects, pinching etc. were also reported under DRO (Foxx and Shapiro, 1978).

DRL schedules specify that a response is not to be reinforced unless a minimum time interval has elapsed since the preceding response. DRL involves reinforcing lower rates of a behaviour. The use of DRL to reduce aggression has not so far been reported by any investigator. However, DRL has been found successful in reducing stereotypic rocking behaviour (Hollis, 1978; Mulhern and Baumeister, 1969; Singh et al., 1981b), and inappropriate social behaviour (McLaughlin et al., 1986).
Extinction refers to a reduction in response frequency following the cessation of reinforcement. A previously reinforced behaviour decreases when ceases to produce positive reinforcers or to terminate negative reinforcers. Successful use of this procedure has been reported (Bucher and Lovaas, 1968; Carr et al., 1980; Pinkston, 1973; and Wise, 1975). However, some investigators (Corte et al., 1971; Lovaas et al., 1965a; Myers, 1975; and Wolf et al., 1967) have found extinction procedure less effective.

A plethora of research studies have been conducted on punishment procedures such as over correction, time out, response cost, and aversive stimulation.

Overcorrection is a procedure which aims to prevent the child physically from engaging in the problem behaviour; at the same time, more acceptable forms of behaviour are encouraged. This technique has been employed with success to reduce aggressive responses (Barnard et al., 1974; deCantanzaro and Baldwin, 1978; Harris and Romaczyk, 1976; Matson et al., 1978). Side effects of positive practice over correction have also been reported (Carey and Bucher, 1983; Epstein, 1974; Rollings et al., 1977).

Time out is the punishment procedure in which the punishment is a period of time during which reinforcement is not available. Time out procedures have been successful in reducing aggressive responses such as self-injury (Baroff and
Tate, 1968; Hamilton et al., 1967; Lucero et al., 1976; Rubin et al., 1972; Wolf et al., 1964), hitting, fighting, and kicking (Burchard and Berrara, 1972; Firestone, 1976; Pendergrass, 1972), shouting (Jackson and Calhoun, 1977) and biting others (Barton et al., 1987). Time out procedures have also been found successful in reducing other behaviour problems (Wolf et al., 1964, Martin et al., 1971). However, some researchers have found time out less effective (Doleys et al., 1976; Frankel et al., 1976; Plumer et al., 1977; and Solnick et al., 1977).

Response cost is the withdrawal or loss of a reinforcement contingent on a behaviour. This may be the loss or fine of tokens in a token system. A variety of aggressive responses have been suppressed with response cost (Burchard and Berrara, 1972; Greene and Pratt, 1972; Martin and Fox, 1973; Tate and Baroff, 1966).

An aversive stimulus is an event or object, the removal of which is reinforcing or which may suppress responding that just precedes its prevention. Aversive stimulation includes electric shocks, verbal reprimands, scolding, unpleasant tasting, tickling etc. This technique has been used with success to reduce aggressive responses (Bachman and Wincze, 1975; Ball and co-workers, 1975; Corte et al., 1972; Risley, 1968). However, aversive stimulation was not totally successful in eliminating aggressive acts as reported by some researchers (Banks and Locke, 1969; Richmond and Martin, 1977).
Various combinations of positive reinforcement and punishment procedures have been employed by many researchers in reducing a variety of aberrant behaviours. Combined use of DRO and time out has been successful in reducing antisocial, aggressive-disruptive behaviour (Burchard and Tyler, 1965) and a variety of other aberrant behaviours (Foxx and Shapiro, 1978). DRI combined with time out has also produced successful results in reducing aggressive behaviour (Bostow and Bailey, 1969; Weisen and Watson, 1967; Wolf et al., 1983).

Positive results have been reported with the positive reinforcement and aversive stimulation in the reduction of a variety of targets (Altman et al., 1978; Birnbrauer, 1968; Ramey, 1974; and Wilbur et al., 1974). Combination of positive reinforcement and response cost has all the more successively reduced aggressive responses (Perline and Levinsky, 1968; Repp and Deitz, 1974).

A very few studies have been conducted to see the comparative effectiveness of various behaviour modification techniques. Various types of differential reinforcements have been more effective as compared to extinction (Mulick et al., 1981). Mixed results have been reported with regard to the comparative effectiveness of differential reinforcement and time out procedures. DRI procedure has been found to be more successful than the combination of DRO and time out in reducing self-injurious behaviour (Peterson and Peterson, 1968).
has been found less effective than time out in reducing subject's self-injurious behaviour (Frankei et al., 1976). The combination of time out and DRO have appeared to be more effective than DRO alone (Foxx and Shapiro, 1978) in reducing aggressive responses.

A close analysis of review of related and relevant literature clearly shows that various behaviour modification techniques and combinations of these techniques/methods have been used to reduce the aggressive behaviour. Mixed results have also been reported by these researchers. A very few studies have been conducted to see their comparative effectiveness. Hence, the investigator felt inspired to see the comparative effectiveness of various behaviour modification techniques and combinations of these techniques. Secondly, to the best knowledge of the investigator, no such study has been conducted in India. All the studies reviewed here have been carried out abroad. There is a great paucity of such research work in India. This prompted the investigator to try out the effectiveness of different behaviour modification techniques in Indian conditions. Thirdly, almost every third pre-school child becomes the victim of aggressive behaviour. Parents and community both are confronted with this most troublesome behaviour problem. If this problem is dealt with well in time i.e. during the pre-school years, children can be saved from
becoming delinquents or problem children. Thus, the prevalence and severity of aggressive behaviour inspired the investigator to deal with this troublesome aggressive behaviour of pre-school children.

Government of India aims to improve the quality of life of children, hence, proclaimed the National Policy Resolution in August, 1974. Declaring that "the nation's children are a supremely important asset. Their nurture and solitude are our responsibility", the policy lays down that the State shall provide adequate services to children both before and after birth and through the period of growth to ensure their full physical, mental, and social development. Thus, realizing the crucial importance of physical, mental and social development during early childhood, Government of India has started a number of programmes of early childhood care and education (ECCE). Integrated child development services (ICDS) is one and the foremost of its programmes.

ICDS aims at providing a package of early childhood services to children below 6 and expectant and nursing mothers. These services are delivered through an anganwadi - a grass root level institution acting as a focal point for child care services in villages, tribal and urban slum areas. Children of slum areas are more prone to having behaviour problems and of these behaviour problems aggression is of great concern for parents and teachers as well. Though integrated services are
provided to these children in ICDS centres yet the control of behaviour problems is altogether ignored. Parents as well as pre-school educators need special education in treating aggressive behaviour of children. Since early childhood is the most formative period, aggression in children should be eliminated during this period in order to make them fit citizens of the country. Hence, there is a dire need of early detection of aggression and adequate early intervention in order to eliminate or reduce aggressive behaviour as it adversely affects the growth and development of the child.

Thus, the seriousness of aggressive behaviour problem found in slum areas, importance of early childhood years, necessity of early intervention to eliminate or at least reduce aggression, lack of intervention programme in the educational settings to deal with this problem, effectiveness of behaviour modification techniques tried out abroad, and lack of such research work in Indian conditions to improve the lot of a large number of children living in slum areas/impoverished conditions greatly inspired and encouraged the investigator to take up the present study.

Through the present study, the investigator wanted to find out the effectiveness of DRO, DRI, Time out (TO), combinations of DRO and TO, and DRI and TO techniques on aggressive behaviour of pre-school children in Indian conditions.
The exact statement of the problem is as follows:

STATEMENT OF THE PROBLEM

The problem under study reads as follows:

"Effect of Behaviour Modification Techniques on Aggressive Pre-School Children of Anganwadi Centres in Chandigarh".

OBJECTIVES

Main objectives of the present study are:

(1) To study and classify the characteristic behaviour problems of pre-school children coming to anganwadis.

(2) To apply various behaviour modification techniques to eliminate or reduce aggressive behaviour.

(3) To involve existing human resources such as anganwadi workers in dealing with aggression of pre-school children.

(4) To compare the effectiveness of various behaviour modification techniques for reducing or eliminating aggressive behaviour.

(5) To see the side effects of reduction in aggression on other behaviour problems and intelligence of pre-school children.

DELIMITATIONS

(1) Pre-school children with age range of 3 to 6 years and belonging to different anganwadis will be included in this study.
(2) Children with only behaviour problem of aggression will be provided treatment.

(3) Only DRO, DRI, TO, combinations of DRO and TO, and DRI and TO will be used to modify aggressive behaviour of pre-school children.