REVIEW
OF
LITERATURE

"When anger is there, look, watch,
and soon you will see a change.
The moment the watcher comes in
The anger has already started becoming cool, the heat is lost"

– Rajneesh

CHAPTER 2
REVIEW OF LITERATURE

2.0   INTRODUCTION

Acts of aggression have been central in human history, myth, literature, and even religion. In the biblical account, humankind has barely come into existence when 'Kain' kills his brother 'Abel'. Almost as old are questions concerning the causes of aggression and the debate over how to control it.

'Sigmund Freud' saw aggression as the result of struggles within the 'Psyche' of the individual; the tension produced in the struggle between the life instinct and the death instinct which creates outward aggression. *Alfred Adler*, another psychodynamic theorist, stated that aggression represents the most general human striving and is a necessity of life, its underlying principle is self assertion. Humanistic theorist *Rollo May* notes, attention to aggression has nearly universally focused on its negative aspects. In Power and Innocence (1972), *May* wrote, "we have been terrified of aggression, and we assume – delusion though it is – that we can better control it, if we center all our attention on its destructive aspects, as though that all there is".

It was first the behaviorist school, then social learning theorists (such as *Albert Bandura*), who explored ways to reduce and control aggression. The frustration aggression hypothesis, was developed for this purpose, in the 1930's. Behaviourists, tended to approach aggressive behaviour in terms of stimuli, responses, and reinforcement. In a general sense, their approach involved punishing unacceptable aggressive behaviour or rewarding the positive wanted behaviour. Some time later, 'Bandura' and other social learning theorists found, in some situations, children respond to viewing aggressive acts, by performing aggressive acts themselves i.e. they tend to imbibe and ape, the behaviour of individuals in their social environment, through the process of learning and modeling. The implications of this have been widely argued and debated. But researchers of this area do argue, about viewing violence on

television leading towards increased aggressive behaviour? Still because of the nature of the type of studies most often performed, it becomes difficult to draw an unarguable, cause and effect relationship. On the other hand, cognitive school of thought suggests helping the client to talk to themselves (*Michenbaum*, 1977) and to constructively solve their personal problems through means of mental solutions, *Goldfried* (1980). They also proposed, cognitive restructuring given by *Albert Ellis* (1962, 1977) in the form of Rational Emotive Therapy, as one of the most influent forms, to reduce aggression. It encompasses, viewing the same problem differently by thinking about it, more constructively and less irrationally.

In the following section, a related survey of past more than two decades, have been dug. The focus is mainly, as the word 'research' indicates; searching in the light of past, those studies which enable and provide an insight into the present topic of investigation. For a clearer understanding on this subject; this chapter has mainly been divided into the following sections :

1)   Survey work on therapeutic interventions for reducing aggression.

2)   Aggression in adolescent period.

3)   Aggressive behaviour related to genders

2.1   SURVEY WORK ON THE THERAPEUTIC INTERVENTION FOR REDUCING AGGRESSION

Aggression is not an inevitable or unmodifiable form of behaviour. On the contrary, since it stems from a complex interplay between external events, cognitions and personal characteristics, it can be prevented or reduced (*Baron* and *Byrne*, 1972). Seemingly the first question, arising in the mind of any researcher working in this area, is about the different psychological interventions actually effective? In this context, *Dogra, A* and *Veeraraghvan, V.* (1994) tried to compare the effectiveness of psychological intervention on two groups of children with aggressive conduct disorder viz. – the experimental group and the control group. Their investigation tried to determine direction of

their aggression, reaction to it and further their adjustment to various behaviour dimensions. Intervention done with the experimental group included play therapy and parental counseling. Results revealed, the intervention as successful in bringing change in the child manifesting aggressive conduct disorder, as compared to the group which did not undergo any intervention.

Different approaches have been long used for reducing aggression, which have been elaborated in the last chapter. Some studies on the effectiveness of these psychiatric and psychotherapeutic tools, have henceforth been examined below:

Psychiatry tries to handle problems of mental origin with medicines and psychotherapy simultaneously. *Rapport et al* (1983) handled one such case through means of psychiatric treatment. The case history was of a 13 year old girl, suffering from seizure disorder after measles. Previously a normal girl, was now reporting symptoms of continued seizure activity, concomitant aggressive behaviour, like kicking, biting, hair pulling, grabbing, punching and nocturnal enuresis.

Her treatment entailed 400 mg of Carbamazepine (3 times a day) combined with a strict behaviour treatment. The patient was restricted to shout loudly, by holding through her shoulders, when she exhibited such behaviour. Differential Reinforcement too was judiciously applied. For example : she was given a candy or a fruit when such behaviour did not occur for 15 minutes. Later, this time period was increased to 30 minutes to a few days. Results recognized an observable improvement after 53 – 62 days.

Doke, Wolery and *Sumberg* (1983) in their paper entitled, 'treating chronic aggression', attempted to evaluate the effects of aromatic ammonia spirits applied contingent upon severe aggression of a 7 – year old mentally retarded and behaviourally disordered child. A secondary purpose of their study was to test a new method of administering the treatment. A within subjects, repeated reversal design was used. Across 104 daily sessions, concurrent measures were

obtained on aggression, inappropriate vocalizations, participation in planned activities, staring, teacher praise and teacher touching. During experimental phases ammonia was applied contingent upon aggression and the behaviour was abruptly suppressed. Concurrently, levels of untreated inappropriate vocalizations decreased. While alongside the levels of participation in planned activities increased. These side effects diminished after 3 or 4 months. While treatment effects sustained after a 14 month follow up.

Adrain Raine (2003) tried to review the biological basis of antisocial and aggressive behaviour in children with a focus on low autonomic functioning, prefrontal deficits and early health factors. Their results revealed that low resting heart rate is thought to be best replicated by biological correlate of antisocial and aggressive behaviour in child and adolescent population and may reflect reduced non-adrenergic functioning and a fearless, stimulation seeking temperament. Evidence from neuro-psychological, neurological and brain imaging studies converge on the conclusion of prefrontal, structural and functional deficits as related to antisocial, aggressive behaviour. A prefrontal dysfunction theory of antisocial behaviour argues, social and executive functional demands of late adolescence overload the late developing prefrontal cortex, giving rise to prefrontal dysfunction and a lack of inhibitory control over antisocial violent behaviour which peaks at this stage. Birth complications and minor physical anomalies are selectively associated with later violent behaviour, especially when combined with adverse psychosocial risk for antisocial and violent behaviour, in later life by disrupting non-adrenergic functioning and enhancement of cholinergic receptors which inhibit cardiac functioning. Also it has been observed that malnutrition during pregnancy is associated with later antisocial behaviour which could be mediated through protein deficiency. The concluding remark of Raine's study was "Early health intervention and prevention studies may provide the most effective way of reversing biological deficits, predisposing to aggression and maladaptive social behaviour, in children and adults."

2.1.1 Catharsis

The following section of research studies is devoted to the 'Behavioural Approaches in Reducing Aggression. Prior to it, a noteworthy study on the component of 'Catharsis' by Seymour *Feshbach* (1961) is being accounted. He suggested a general hypothesis, for an activity to have drive reducing properties, the drive components must be present or evoked during performance of the activity. Also, there must be some functional connection between the vicarious act and the original drive instigating conditions. Though undoubtedly true, the vicissitudes of life arouse hostilities which cannot be directly discharged, however it does not follow that any indirect aggressive act will have the property of reducing hostility, evoked under markedly different circumstances. According to this view, a child's anger towards his mother will not be reduced by an aggressive act towards a doll figure until the figure is similar to mother.

Feshbach, further noted, if the 'S' is not hostile at the time of participation in the aggressive act, his subsequent aggressive behaviour wouldn't merely remain unaffected but is very likely to get increased. He found, an increase in aggression following a vicarious aggressive act, could result from a number of different processes, like reduction in inhibition or aggression anxiety, reinforcement of aggression responses and finally conditioned stimulation of aggressive drive / responses.

The results of his study were consistent with the hypothesis that drive reducing effect of a vicarious aggressive act is dependent upon the aggressive state of the subject, at the time of vicarious activity.

Further he found, witnessing a fight film resulted in significant relative decrement in aggression, in comparison to witnessing a neutral film. However, this was true for only those subjects in whom aggression had been previously aroused by insulting comments of the experimenter. On the other

hand, predicted increase in aggression for non – insulted subjects, following exposure to the fight film, did not occur.

Similar to the studies of *Feschbach*; *Hokanson* and *Shelter* (1961) too, in their research work tried to measure the systolic B.P., prior to frustrating their subjects, after frustration and following an opportunity to express aggression physically towards either a high or low status experimenter, through the administration of an electric shock. The shocks were given ostensibly to signal incorrect responses in a guessing task. The frustration manipulation increased systolic B.P., in comparison to control condition. Also expression of aggression towards low status experimenter, reduced systolic B.P. This measure remained high in absence of an opportunity to express aggression. There results thus support for a cathartic effect of aggression under some conditions.

There are many other investigations which support the evidence that 'angry aggression is capable of being discharged, either in fantasy or by witnessing aggression'. However, the question whether it is displaced to less risky objects than the original object of aggression, still requires more proof.

Reviewing studies on 'Behavioural Approaches' for reducing aggression, the **reinforcement approach** suggests : aggression and hostility as learned behaviours, which are maintained as functions of positive and negative reinforcements. A variety of response deceleration treatment strategies have been used, to reduce aggressive responses by removing their rewarding consequences, while reinforcing appropriate or pro-social behaviours. Some of these approaches are : Punishment, Over correction, Response cost Extinction and Time-out.

2.1.2 Punishment

Hollenberg and *Sperry* (1951) in one of their experiments used pre – school children as subjects, each one of whom served in four doll play sessions.

Verbal punishment for doll play aggression was administered to one group during the second session. This group showed no increase in aggression between the 1st and 2nd sessions, but a decline in their behaviour was noted at the 3rd session. Their aggressiveness once again shot up at the 4th session. Meanwhile, the control group, showed an increase in aggression from session to session, a finding commonly seen in repeated doll play under permissive conditions.

Lefkowitz, M. M. ; Walder, L.O.; Eron, L.D. (1963) in their study tried to examine some of the relationships amongst punishment, identification and aggression. Data on punishment and identification were gathered from 699 mothers and 555 fathers through separate individual interviews. Children's aggression scores were obtained by peer ratings. Generally, children's mean aggression scores were found to increase as number of physical punishment items chosen by parents increased. Throughout the range of physical punishment, aggression and confessing were found to be negatively co-related but not statistically significant in all cases. Although physical and non-physical punishment were found independent, the foregoing relationships concerning aggression, identification and punishment could be attributed to the physical component in punishment. This conclusion was reached by demonstrating, non-physical punishment as being unrelated to either aggression or identification. Finally, reported use of physical punishment was found unrelated to social status, in their study.

Kool V.K. and *Kumar, V.* (1977); attempted to find, whether a raise in the degree of instigating remarks from the experimenter about the victim increased the amount of aggression, in the four group of adults (N = 60) male – female dyads, where one is the aggressor and other is the victim. The results confirmed the hypothesis that even when the aggressor themselves are not insulted, the instigating remarks about the victims escalates the amount of aggression.

In a study by *Twenge J.M.; Roy, F.B. Tice D.M.* and *Stuck, T.S.* (2001), social exclusion was used on undergraduate (18 – 21 years) student as a form of punishment. Social exclusion was manipulated by the experimenter, through telling them, "they would end up alone later in life" or "other participants had rejected them". These manipulations caused participants to behave more aggressively. Excluded people issued a more negative job evaluation against someone who insulted them. Also they blasted a target with higher levels of aversive noise, both when the target had insulted them and when the target was a neutral person and no interaction had occurred. However it was noted, excluded people were not more aggressive towards someone who issued praise. These responses were specific to social exclusion (as opposed) to other misfortunes and were not mediated by emotion.

Reaching the aspect of physical punishment :
Wide range of researchers suggests, only in serious situations should physical punishment be applied. *Birnbrauer* (1968) treated biting and destructiveness in a retarded adolescent by contingently shocking behaviour which were analogous to dangerous ward behaviours. Similarly, *Ludwig, Marx, Hill* and *Browning* (1969) eliminated extremely threatening and aggressive behaviour of a hospitalized schizophrenic woman by applying contingent electric shock. Prohibitions against the use of physical punishment have limited their application to institutions (*Repp* and *Deitz*, 1974). For example, concerns have been raised, about physical punishment which may model injurious behaviour, may arouse counter aggression, or may be sufficiently unappealing to contingency managers they choose. *Zillman* (1979) expressed, aversive treatment perceived as unjustified is likely to instigate more aggression or hostility than treatment perceived as fair or just.

2.1.3 Over Correction

'Over correction' or 'restitution treatment' was originally presented as an educative punishment procedure, in which disruptive aggressive behaviour

results in removal of reinforcement for offenses (*Foxx* and *Azrin*, 1972). Prosocial responses were encouraged by having the offender correct the original disturbance that he or she caused to a state, that is an improvement over the original situation. The effectiveness of restitutional over correction was suggested in early case reports of aggressive retarded and brain damaged adults (*Foxx* and *Azrin*, 1972), and with aggressive adult inpatients of normal intelligence (*Sumner, Mueser, Hsu* and *Morales*, 1974).

In a variant of these procedures, the positive practice of over correction emphasised on the repetitive practice of desirable behaviours which were incompatible with inappropriate behaviours (*Ollendick* and *Matson*, 1978). Such procedures were successfully employed with eight profoundly retarded adults who exhibited aggressive disruptive behaviours (*Webster* and *Azrin*, 1973). In another study, two aggressive children were successfully treated with a combination of positive practice and restitutional over correction, (*Ollendick* and *Matson*, 1978).

2.1.4 Response Cost

Response cost involves, loss of reinforcement contingent upon specific behaviours. Response cost was clubbed with token economy system of fines, to eliminate hostile statements in delinquents. The investigation reported reductions in frequency of aggressive behaviour to be related to the amount of fines imposed (*Phillips*, 1968; *Burchard* and *Barrera*, 1972). Larger fines were more effective than less costly fines in both studies. *Repp* and *Deitz* (1974) combined response cost with punishment and differential reinforcement of other behaviour and found it effective.

Quite similar to the concept of Response Cost is the **Token Economy System**. *Hogan, W. A. & Johnson, D. P.* (1985) tried to evaluate the effects of eliminating the response cost procedure in a token economy programme which had been developed for adolescents, diagnosed as "emotionally disturbed" or "socially maladjusted". It was hypothesized that a change would

result in improvements in clients behaviour through implementation of the token economy system. The research was carried out in a community based treatment, where the number of clients varied between 107 and 132 during the course of study. Data consisted of official records of misbehaviour incidents and use of time-out room, and number of episodes involving violence. Their results suggests, elimination of response cost and the related shift to a more positive approach which increased the effectiveness of the token economy program which originally had employed a combination of positive and negative contingencies.

2.1.5 Extinction

In an early uncontrolled case study, the tantrum behaviour of a 21 month old boy were eliminated by an extinction procedure, in which the parents ignored the rages of the child at bedtime (*Williams*, 1959). In another report of two uncontrolled case studies, parents were trained successfully to extinguish aggressive behaviour through withdrawing their attention from aggressive acts, alongside reinforcing incompatible prosocial responses (*Russo*, 1964).

In a variant of extinction procedure, it was found when a teacher ignored a boys aggressive behaviour, physically protected and attended to his victim, and praised the boys appropriate social interaction – it enabled in reducing aggression and increasing peer interaction. (*Pinkston, Reese, LeBlanc* and *Baer*, 1973).

2.1.6 Time Out (TO)

Extinction initially may increase the occurrence of an operant and often requires long periods of time to be effective (*Ferster* and *Skinner*, 1957). Time out from reinforcement involves less chance of injury or destruction during initial stages of intervention and can produce more immediate effects than extinction (*Fehrenbach, P.A.* and *Thelen, M. H.*). In an uncontrolled case

study, time out alone was effective in reducing intimidation and aggression in an institutionalized delinquent male (*Brown* and *Tyler*, 1968).

Other investigators using single case reversal designs have demonstrated about parents being taught to reduce children's aggressive behaviour by reinforcing cooperative play and compliance, making TO contingent upon the undesirable behaviours (*Allison* and *Allison*, 1971).

Kendall, Nay and *Jeffers* (1975) demonstrated, a five minute TO reduced the verbal and physical aggression of institutionalized delinquents when it preceded a thirty minute TO phase. However, in the reverse case when five minute TO phase followed the thirty-minute TO phase, verbal and physical aggression increased above baseline rates.

2.2   SYSTEMATIC DESENSITIZATION AND ANGER RESPONSE

Rimm, Degroot, Boord, Heiman and *Dillow* (1971) suggest effectiveness of Systematic Desensitization to an anger response in driving situations. In their investigation 30 subjects received standard systematic desensitization with muscle relaxation as the counter condition. 'Placebo' subjects were put separately and given an interview dealing with the physiological and psychological aspects of anger.

The response measures were subjective anger ratings SAR, GSR and heart rate. For both SAR and GSR, desensitization group showed a significantly greater reduction than either of the two groups. These differences were then maintained at a two-week follow up.

Hearn and *Evans* (1972) were amongst the first researchers to investigate whether anger could be modified by 'reciprocal inhibition'. *Wolpe* described reciprocal inhibition as follows : "If a response antagonistic to anxiety can be made to occur in the presence of anxiety evoking stimuli so that it is accompanied by a complete or partial suppression of anxiety responses, the bond between the anxiety responses will be weakened. In their study, 34

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female student nurses were assigned to either a treatment or a non treatment group. The groups were matched for means as well as for the distribution of total aggression scores on the Buss-Durkee Inventory. The results supported the hypothesis that compared to the no treatment group, therapy group which received treatment: (1) Treated anger inducing scenes as less anger, tension and excitement inducing. (2) Rated the 15 treatment related and 61 non treatment related reaction inventory items lower

2.3 RELATED RESEARCH ON SOCIAL LEARNING APPROACHES

Social learning theory proposes, ineffective and inappropriate patterns of behaviors, such as aggression may continue to be performed because more acceptable ways of handling the demands of interpersonal relations have not been learned (*Bandura*, 1973). Indeed, juvenile delinquents who often behave in destructive and aggressive ways, exhibit situational specific skills deficits in typical teenage problem situations (*Freedman*, *Rosenthal*, *Donahoe*, *Schlundt*, and *McFall*, 1978). Also it has been noticed that prisoners appear to resort to violence during altercations because they lack the necessary verbal skills for coping with provocations (*Toch*, 1969). Persons lacking basic social skills seem to account for a high proportion of violence in many societies (*Toch*, 1985). Thus, equipping these individuals with the social skills they so sorely lack may go a long way towards reducing the incidence of aggression.

Fortunately, systematic procedures for teaching individuals such skills do exist and they are not very complex. For example, both adults and children can rapidly acquire improved social skills from watching social models (*Baron* and *Byrne*).

Bandura (1943) suggested social learning principles which play a crucial role, for the development of aggression also apply to its modification. Further more the influences attributed to modeling in the development of aggression are also postulated to apply in the modification of aggression. Henceforth, modeling of appropriate behaviours can be viewed as alternative responses to

aggression and hostility. In support, research has shown aggressive behaviour of children is modifiable by exposing them to models who alternately demonstrate aggressive and cooperative behaviour in interpersonal conflict situations.

Bandura, Ross and *Ross* (1961) in their study also reported, effects of seeing other peoples aggressive behaviour. Their study involved the generalizations of imitative patterns. They found the observation of cues produced by behaviour of others was one effective means of eliciting certain form of responses which are of low probability in themselves, without the necessity of reinforcement.

Another study conducted by *Goodwin* and *Mahoney* (1975) hyperactive impulsive boys were asked to play a game involving verbal assault. Baseline observations indicated a marked inability to cope with verbal aggressions. Subjects subsequently viewed a videotape depicting a young boy coping with similar verbal aggression by means of covert coping self statements. Following training and practice in these coping skills, all subjects demonstrated marked improvement. Also, classroom assessments of disruptiveness prior and following treatment, also reflected performance improvement.

To assess effects of exposure to an aggressive or altruistic model and the stability of aggressive and altruistic behaviours across situations; *Harris, M.B.* and *Samerotte, G.* (1975), carried out an investigation. *Herein,* 120 male and female shoppers were randomly assigned to five treatment conditions. Although there was no difference between Ss interacting with the same or different experimenter as the model. Those exposed to an aggressive model behaved significantly more aggressively in the first situation. No effect of observing an altruistic model was found, nor were there any difference in responses to the second situation by Ss who had been in different treatment

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conditions. However, those who were altruistic or aggressive in the first situation tended to be more altruistic or aggressive in the second one.

Thelen, M.H., Fry, R.A., Dollinger, S.J. and *Paul S.J.* (1977), designed a study to assess the feasibility and effectiveness of using videotaped models plus role playing to improve the interpersonal adjustment of delinquents living in a group home. The major focus was on a day to day interpersonal behaviour. Subjects were 8 male residents ranging in age from 12-16 years. Modeling subjects observed a 15 minute tape in which a male actor portrayed a delinquent in various problematic interpersonal situations. During each tape, model was initially depicted as unsuccessful in coping with situations though gradually he mastered them. After viewing the videotape, subject role played the models part with the experimenter and then practised again. Control subjects observed lecture tapes emphasizing the corresponding social skills. The process proved effective in adapting them to interpersonal skills at both, home and school.

In addition to modeling, *Bandura* (1973) has recommended use of **Rehearsal, Role playing** and **Positive feedback** as skills training approaches to be used in treating aggression and hostility.

Sarason and *Ganzer* (1973) reported modeling and behaviour rehearsal produced greater positive attitude and behaviour change with young male offenders as compared to the usual regime of the institution. The training method, however was not significantly superior to a structured discussion group in which specific social problems were discussed and special advice given.

Marzillier J. S. and *Spence, S.H.* (1979) in their study tried to examine the effect of social skills training programme consisting of instructions, modeling, role playing, videotaped feedback and social reinforcement on five adolescent offender. They reported training leading to specific improvements in certain behaviours which generally were maintained at two weeks follow up.

Eldsteun and *Narich* (1980) working with institutionalized adolescents employed a multiple baseline design across three classes of socially appropriate behaviours which were trained by means of a combination of instructions on how to respond appropriate role played emission of the desired behaviour. Training increased desirable target behaviours in role play situations and also generalized on to extra-treatment settings. In another multiple base-time study, four highly aggressive children were successfully treated on a psychiatric unit using similar skills training components (*Bomstern Bellack* and *Hersen*, 1980). However generalization and maintenance of treatment effects were quite valuable across subjects.

In one interesting study conducted by *Dumas, J.E.* (1986) one hundred and nine families seeking psychological help for severe interaction problems participated in a standardized training program. Causal modeling procedures were used to evaluate adequacy of a model relating to child parent and socio-economic variables. The Parental involvement in treatment and treatment outcome was measured at 12 month follow ups. Results provided partial support for the model. It was noted, parental perception may be caused by important child characteristics as well as parental personal and interpersonal functioning. However treatment involvement and outcome may almost exclusively be a function of socio-economic variables.

2.3.1 Assertive Training

While acquiring assertive procedures, what happens to anger? It is used or suppressed or dissipated in some way? *Wolpe* (1973) declared anger as being used in learning assertion. Anger produces a propulsion to assert oneself and while expressing fear gets inhibited. *Lazarus* (1974) noted, suppression of anger is unhealthy but overt verbal aggression is to be avoided until an adaptive assertive response can be formulated and directed. Such responses may vary from a verbalization of one's anger to an authentic reflection of the addressees behaviours. Although 'Rogers' disagrees with reflective responses

used by 'Lazarus'-Reflective responses. Accordingly using a reflective response when angry, would be disguising the anger and assuming an incongruent pose which eventually would arouse anger and distrust from others. In a study on 'Unassertive and Aggressive Adolescents' *Petz, M.A.W* (1980) tried to examine the effects of assertion training and trainers on 90 Adolescents selected for their unassertive or aggressive behaviours with teacher. Structured learning training (SLT) was compared with instruction conditions and no-treatment conditions on self –report and in –vivo measures of assertive behaviours. For SLT groups trainers were varied for their situational similarity to teachers. The result yielded a 2x5 factorial design, varying type of participant (unassertive versus aggressive) and type of training (SLT with teachers parents or students as trainers versus verbal instructors and no treatment conditions) it was noted that SLT improved assertive behaviour in teacher situation. Also, effects generalized to novel teacher, parent and student.

2.4 RELATED RESEARCH ON COGNITIVE BEHAVIOUR THERAPY

Apart from Behaviouristic school of thought, the cognitive therapists, have a totally different view about handling aggression. Infact, cognitive behaviour therapy has evolved from two lines of clinical and research activity. First, it derives from the work of early cognitive therapists (*Albert Ellis* and *Aaron Beck*); second it has been strongly influenced by the careful empirical work of the early behaviourists. Within the domain of behaviorism, cognitive processes were not always seen as a legitimate focus of attention. That is, in behaviour therapy, there has always been a strong commitment to an applied science of clinical treatment. (*Colman*, 2001).

In 1969, psychologist *Albert Bandura* published his influential volume "Principles of Behaviour Modification". In this volume, *Bandura* emphasized the role of internal or cognitive factors in the causation and maintenance of behavioural approaches for understanding complex human behavior and the

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publication of *Bandura's* 1969 volume, behavior therapists began actively to seek and study the role of cognitive processes in human behavior.

The cognitive therapies at their core, share three fundamental propositions :
- cognitive activity affects behavior
- cognitive activity may be monitored and altered
- desired behaviour change may be effected through cognitive change.

Some of the studies performed by cognitive therapists on controlling and aggression have been outlined below :

Chittenden (1942) conducted an experimental study in which appropriate responses to frustration were taught to aggressive and dominant school aged children. In their classic study, children were exposed to doll plays illustrating aggressive and then cooperative solutions to inter-personal problems; and the children discussed the advantages of cooperative responding with their teacher trainer. The children showed a reduction in both domination and frustration – which generated aggression during school following problem – solving training.

Gittleman (1965) applied problem solving approach on role playing and rehearsal in the treatment of an aggressive adolescent. Participants in the group watched each other act out solutions to frustrating situations. *Gittelman* reported that the targeted child learned to inhibit his aggressive behaviour and continued to show progress in conduct and academic performance at follow up.

Namara (1968) exposed an aggressive boy to children participating in a "relearning group" in which verbal rehearsal and active problem – resolution strategies were taught. First, group members modeled prosocial responses to conflict related solutions. Then, the targeted child rehearsed these solutions before the group. After training, the intensity and frequency of aggressive behaviour were reduced and the child's social behaviour improved significantly.

These studies suggest that an active role in the formulation of problem solutions combined with pro-social modeling by other children can produce considerable behaviour change as well as promote generalization.

Michenbaum, described teaching the covert statements or "thought processes" that competent individuals use to guide their activities, as an effective technique for controlling anger.

Blackwood (1970) demonstrated that disruptive and aggressive behaviour could be controlled through explicit instruction in the use of verbal self control skills. Acting-out children copied, paraphrased and recited oral essays concerning their misbehavior. The essays contained responses to four questions that children were queried to ask after each incident of misbehaviours it was presumed, the children came to use these subsequently in the control of misbehavior. This form of verbal control was found more effective in decreasing misbehaviour than one involving the use of unrelated essays as a form of punishment.

Camp (1975) studied high and low aggressive boys and found that aggressive boys differed from the non-aggressive boys in that they did not report, the use of covert instructions and when covert instructions were reported, they did not achieve functional control of the boys activities. By and large, the aggressive boys had the same self-instructional skills as the non-aggressive boys but failed to use them when thinking through and solving problems.

Camp, Gasten, Hebert and *Doornick* (1977) employed the same basic "think aloud" strategy with more aggressive children. The problem consisted of the verbalization of guiding instructions to develop the requisite self instructional skills for dealing with interpersonal difficulties. Participants were trained to respond with problem-solving instruction to questions concerning their behaviour. Following intervention, improvements were reported in teacher ratings of pro-social behaviour and the children's overall performance on cognitive tests.

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Self-instruction training has also proven useful with adolescents showing a variety of behavioral problems including aggression.

Snyder and *White* (1979) described a self-instruction package which focused upon the verbalization of instructions and coping statements, and the modifications of counter productive statements. In conjuction with several techniques, the package was found more effective on three significant behavioral measures, than a contingency awareness package.

One of the most comprehensive stress inoculation package for dealing with angry outbursts and aggressive behaviour is the anger-control program described by *Novaco* (1975). His findings indicate the superiority of his stress inoculation treatment program over cognitive self-control or relaxation procedures alone. The treatment program has been successfully applied with adolescents (*Schrader* and *Long*, 1978) and law enforcement officers as well as in a case of depression that was secondary to anger. (*Novaco*, 1977).

Forman (1980) reported from his study, when aggressive elementary school children were assigned to either cognitive restructuring, response cost or treatment control conditions. It was seen, that the response cost program tended to produce greater decrease in aggression than the cognitive restructuring group.

To teach **self control** to impulsive and aggressive children, *Schneider* (1974) developed "the turtle technique". Their package was used to teach children to control their aggression by first closing their eyes, pulling their arms into body and putting their heads down; later they were engaged in relaxation exercises, and finally problem solving strategies involving self instructions were employed which were rehearsed in imagination. *Schneider* and *Robin* (1976) reported, that the package reduced aggressive and tantrum behaviour in several emotionally disturbed children. In addition various beneficial side effects of training were found that highlighted the participants classroom adjustment. The particular self-control program is one of the few that aims specifically at the

modification of children's disruptive behaviour and aggressiveness using a diverse range of self-control procedures (*Novaco*, 1975).

McCullogh, Huntsinger and *Nay* (1977) designed a comparable package for an adolescent with evident temper tantrums. The boy was exposed to role-playing followed by self control training which comprised of thought stopping, relaxation and a contingency contracting. After only one session of training, the boys temper tantrums decreased and were maintained at low levels both at home and school.

Harvey Karan, Bhargava and *Morehouse* (1978) incorporated relaxation training, cue conditioning and cognitively oriented procedures in the form of self-instructions, with time out and positive reinforcement to reduce violent temper outbursts in a mentally retarded, adult female. The treatment program was designed to facilitate the client's self control over her disruptive behaviour. It was a sequential application in two settings resulting in an immediate reduction in the frequency of temper tantrum. Furthermore, generalization and maintenance were facilitated by gradually thinning the schedule of token – reinforcement so that naturally occurring reinforcers would come to maintain improvements in conduct.

In one interesting study by *Huesmann* and his colleagues, cognitive strategies were used to reduce the impact of violent TV programming on 1st and IInd grade children, by having the children write papers about "How Television is not like real life", Why is it bad to imitate TV violence" and "why is it had for a kid to watch too much TV. A week later after writing them and answering questions about the same topic in a "talk show format". The brief procedure turned out to have a strong lasting effect about TV violence and most importantly, it reduced their levels of aggression two years later. This experiment suggested that it is possible to mitigate the effects violent TV programming through simple cognitive strategies.

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However, exclusive research on RET, was not found by the investigator in any journals. A book on "Anger : How to live with and without it" by *Ellis* had some mentions about REBT. For example, *Dryden*, 1990; *Ellis*, 1977, 1985, 1988, 1991, *Ellis* and *Dryden*, 1987, 1990; *Hanck*, 1974 used Rational Emotive Therapy with a large number of hostile, furious and violent clients. Sometimes in the courses of few sessions they reported, that through RET they were able to help clients become constructively assertive, instead of keeping self defeating anger. They emphasized on large scale educational methods for minimizing and eliminating – rather than suppressing, repressing or ventilating unhealthy hostilities.

2.5 RELATED RESEARCH ON ADOLESCENT AGGRESSION

Adolescent aggression has become an increasingly significant societal concern. The number of violent acts committed by teens is escalating, the severity of these acts is intensifying, and aggressive behaviour is beginning at a younger age and persisting into adult life. Studies reviewed in these areas, have provided valuable information about the causes and outcomes of aggression and have also examined the individual behaviour within the context of some particular social, authority's program or some established theoretical construct. As, *Margolin, Youga* and *Ballou* (2002) observed, although research on adolescent aggression and violence has increased our understanding of the problem but prevention and intervention have achieved only moderate success. An attempt, has been made here by the investigator, to note down the important approaches to research, in the area of aggressive behaviour of adolescents and the important contributions, made by researchers from several disciplines, on this topic.

Earliest of the studies, in this area was done by *Bandura* (1973) who developed a social learning model of aggression, in which the acquisition of aggressive behaviour was noted as being obtained through the process of imitation or modeling in children and adolescents.

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Goldstein (1993) suggested, a view of aggression which was best understood at multiple levels in the context of a person to environment interaction event. The two environmental factors he saw which may contribute to adolescent aggression were exposure to community violence (*Bell* and *Jejkins*, 1993; *Gorman-Smith* and *Tolan*, 1998) and access to weapons (*Page* and *Hammermeister*, 1997; *Sheley*, *McGee* and *Wright*, 1992; *Webster*, *Gainer* and *Champion*, 1993). While *Garret* (1997) suggested the overwhelming exposure to community and media violence as contributing to increasing adolescent violence in society. *Shields* and *Pierce* (2001) in their study on African-American, pre-adolescent boys; tried to examine the factors related to their violent and aggressive behaviour. Here, they took the help of a neighbourhood center leader, to rate the self-control and aggressive, violent behaviour of 152 males (aged 8-13 years) The youths completed self reports, concerning self-control, family structure, positive peer relationship, aggressive and violent behaviours and neighbourhood violence. Results revealed subjects with more structured families; those exposed to fewer family arguments, reported higher levels of self-control. Also, positive peer relationships were significantly related to less aggressive and violent behaviour.

Some other studies focus on familial contributors to aggression in adolescents. As *Dodge*, *Petit* and *Bates*, 1994; *Patterson*, *Debarshye* and *Ramsay*, 1989; *Shaw* and *Bell*, 1993 came to the consensus from different studies, that familial aggression and harsh punitive disciplinary techniques in the family, can be predictive of children's aggressive behaviour. Other studies, pinpoint, a lack of harmonious, cooperative and tolerant atmosphere among parents as a cause.

On these lines, a study conducted by *Singh* and *Saxena* (1993) in the Indian environment highlighted the factors, which contribute to aggressive behaviour resulting from the home environment. A sample of 20 aggressive children were taken and the data collected was analyzed using qualitative techniques. Some important findings about the aggressive behaviour of the Indian adolescent, came forth:

1.   The aggressive children came from large families, having low and poor socio-economic status.

2.   All cases reported poor relations among their parents. Mother of such children were beaten, scolded and abused by their fathers, which adversely affected the respect for parents, in the mind of the child.

3.   There was poor interaction between father, mother and the child. Father generally ignored the child care and well being. The mother too here, ill-treated the child.

4.   Parental behaviour was reflected in the interpersonal relations of siblings. Beating, quarreling and teasing were some of the common features, which not only caused conflict but created tension in the whole atmosphere of the family.

5.   The presence of grandparents caused irritation, conflict and unhappiness in the family. The grandparents, were not tolerated by the young children though they were tolerated by the parents.

6.   The grandparents interfered in day to day life of the grandchildren, complaining about their behaviour to their parents, which was unacceptable to the grand-children.

Another gripping study by *Schreiber* and *Schreiber* (2002) evaluated the personality characteristics of violent children. The study was based on an indepth interview of 25 parents of violent children and a control group of 25 parents of non-violent children.

Parents were between the ages of 22 and 48 years, belonging to middle and low SES back grounds. The results elucidated, that more parents of the violent group were identified as showing characteristics of personality disturbance, than parents of the control group. Also, analysis by interviews, showed consistency regarding greater presence of disturbed behavioural characteristics in response of parents of violent children.

Seerbo, Searpa and *Kilko* (1995), on similar lines, tested the prediction, that the interaction of physical abuse and internalizing problems, heighten the levels of aggressive behaviour in disruptive children. 52, clinic referred disruptive children (aged 7-15 years) were assessed in terms of history and physical abuse internalizing behaviour problems and aggressive behaviour. Physically abused children, with Co-occurring high levels of internalizing problems, exhibited significantly higher levels of aggression, as rated by parents and teachers, and a trend towards heightened aggression as rated by staff. Results lend some support to a transactional model of the development of aggression, suggesting that problems arise out of interactions between child factors (such as internalizing problems) and adverse family experiences (such as physical abuses).

Another study in the year 1998, was done to examine the multiplicative relations of sociability, anger temperaments and parental support to pre-social and antisocial outcomes. 80 adolescents completed self report measures of aggression, antisocial behaviours, sympathy and pro-social behaviours.

Parents also reported on their adolescents socialibilty and anger and secondly on their level of parental support. A significant three way interaction showed that aggression and anti-social behaviours were low, when levels of parental support were high and levels of anger and sociability were low. Also aggression of these adolescents were high when levels of anger and maternal support were high and levels of sociability were low. It was noted, that maternal report of adolescents anger, were related negatively to pro-social outcomes and was positively related to antisocial outcomes. The discussion here is useful for, multiplicative models of parenting and temperament.

In one of the longitudinal studies 177 boys and their mothers participated, where the association between boys experiences with their mothers, their beliefs about families and unfamiliar peers and their peer adjustment were examined, across a two year period. Results exposed that the negative

behaviour of boys, with their mother was associated with their having more negative beliefs about familiar and unfamiliar peers and with their being more, aggressive and less, well-liked. Relatedly, beliefs about familiar peers, predicted changes in their social acceptance, where as negative beliefs about unfamiliar peers changed, in response to their social experience.

The second mentionable aspect here, is the **weapon effect**. In this context, a study by *Sheley, McGee* and *Wright* (1992), tried to assess 1653 males and female adolescents, in the age group of 14-18 years, evaluating, on the degree to which they were victimized by threat of actual fire arm attack 23% of the respondents were classified as victims. The major variables, predicting victimization levels were gender, number of siblings, exposure to violence outside school and personal violence related attributes. Only, one in 10 victimizations appeared to be random (i.e. not predicted, by these variables).

In another study, by *Webster, Patricia* and *Champion* (1993) an investigation was carried out, to estimate the association between beliefs and experiences which were hypothesized to be related to weapon carrying among youths. Students, were told to anonymously fill a questionnaire about whether, they ever carried a weapon for protection or for use in a fight and were stratified by sex or weapon type. Results indicated, that among males. 47% carried knives and 25% carried guns. Amongst females, 37% carried a knife, justifying about the many victims of violence. The conclusion of their study indicates, that knife carrying was associated with aggressiveness, but did not appear to be related to serious delinquency. But, gun carrying, within this non-random sample appeared to be a component of highly aggressive delinquency, rather than a purely defensive behaviour.

Coming back to the causative factors of aggression in adolescence, *Feshbach* (1997) suggested that theories of aggression, must reflect the multiplicity and complexity of influencing factors. In a study that demonstrates this, *Eron, Guerra* and *Huesmann* (1997) reported that two correlates of poverty (a) the

level of stress experienced and (b) normative beliefs about aggression, affected an individuals propensity to behave violently. Similarly *Gil*, 1996, identified, the causes of violent behaviour as "moment of historical, multidimensional (social, economic, political, cultural and psychological) process from local to global levels."

Many studies, like the one mentioned above by *Gil*, quote on the psychological processes or the individual factors, which beset anger. Focus, below is now an studies which probe on the personal factors as a theme cause of aggression in adolescents.

A comprehensive research related to individual factors was study performed by *Trehan, M.* (1994) on one thousand school going adolescent girls, aged (14-17 years), of Delhi. Their study examined the problem of adjustment as a function of sense of humour, degree of aggression and inferiority feelings. Three different types of questionnaire were used to check the aspects, and statistically the data was treated with Multi Variate Regression Analysis and ANOVA. Their major findings, claim:

1.   Inferiority feelings effect the total adjustment, of the individual

2.   There was no effect of sense of humour and degree of aggression on total adjustment.

3.   Also interaction effect of inferiority feeling and degree of aggression, on total adjustment was not significant.

4.   Sense of humour highly effected emotional adjustment, whereas degree of aggression and inferiority feelings, were also effective on emotional adjustment.

5.   Aggression and social adjustment, were unrelated.

6.   Also, there existed no interaction effect of degree of aggression sense of humour and inferiority on adjustment.

In a study of *Bushman* and *Baumeister* (1998) an investigation was done to examine the widely asserted concept, that low self-esteem causes violence. In

two of their studies, both simple narcissism and self-esteem, were measured by them, wherein individual participants, were given an opportunity to aggress, against someone, who had insulted them/praised or against an innocent third person. Results showed that self-esteem proved irrelevant to aggression. While the combination of narcissism and insult led to exceptionally, high levels of aggression towards the source of insult. From their study, the picture emerges that neither form or self-regard affected displaced aggression, which was low in general. These findings contradict the popular view that low self-esteem causes aggression and points instead towards, threatened egotism as an important cause.

In another, study, conducted by *Kirkpatrick, Waugh Valencia* and *Webster* (2002), it was hypothesized that Self esteem-Aggression relationship, differs across, functionally distinct domains (areas) and across contexts. In two experiments, participants had the opportunity to aggress against, the evaluator of an essay, which they had written. In study 1, self-perceived, superiority, was found to be positively related to aggression. In study 2, in which the context was a bit changed, to stimulate a mating competition, only a measure of self perceived mate value emerged, as a positive predictor of aggression. But global self-esteem as such failed to contribute to the prediction of aggression in either of the experiments. While statistically controlling for narcissism did not, eliminate either set of the findings.

In one of the distinct comparative studies, recently carried by *Vitaro, Brendgen* and *Tremblay* (2002), attempt was made to compare reactive and proactive aggressive adolescents. The study was done to examine whether the two forms of aggression were differentially related to antecedent (preceding circumstances) and subsequent (following) measures.

A large community sample of boys and girls, were used for this purpose. Reactive aggression, (revealed in different forms as angry outbursts, hot-temper, provocation, defensive anger) and proactive aggression (being cold

tempered, instrumental, offensive and predatory in nature) was measured through teacher ratings.

Results, indicated, that reactive and proactive individuals had distinctive profiles on antecedent and subsequent measures. They differed on several dimensions of personal functioning. And though, reactive and proactive are distinct forms of aggression, both co-occur in a large proportion of aggressive individuals.

2.5.1 Conclusion

In conclusion, *Dodge* et at (1994) reviewed the focus of the varied training and therapies for children and adolescents manifesting antisocial and aggressive behaviour as follows :

Parent management training –It aims to alter the parent-child interactions in the home particularly those related to child rearing practices and coercive enter changes.

Multisystemic Therapy - Focuses on the individual family and extra familial systems and theirs interrelation as a way to reduce symptoms and promote social behaviour.

Cognitive problems solving skills training - This training relies on cognitive processes which underline the social behaviour and response repertoires in interpersonal situations.

Functional family Therapy - It utilizes the principles of systems theory and behaviour modification for altering interaction communication patterns and problems solving among members.

Brief Strategic Family Therapy - Focuses on the structure of the family and concrete strategies to promote improved patterns of interaction. The treatment has been developed with hispanic children and adolescents and has integrated culturally pertinent issues.

However questions related to the long term impact of various treatments and the persons for whom one or more of these treatment is well suited along with the ways of optimizing therapeutic change, still remain.

In the same context, *Margolin, Yonger* and *Ballou* (2002) emphasize for an Interdisciplinary perspective to be utilized for treating aggression. They commented, "In the case of aggression, interdisciplinary perspectives and multiple methodologies can provide insight into possible responses and structures for preventive programs. If those of us who work with aggressive adolescent are to intervene effectively in this area, it is not enough to categorize the behaviour; we must understand the multiple interactive influences – social, public health, behavioral, developmental, educational, familial, community, interpersonal – affecting this behaviour and learn what strategies might be used to prevent it. Interdisciplinary perspectives can incorporate multiple methods for approaching the problem including the perspective of the aggressive adolescent themselves. This is not to say that these expanded methodologies should be used as a basis on which mental health professionals and educators develop effective treatment methods, but a valuable perspective on the issue can be gained by examining other disciplines methodologies for validating information."

2.6   RELATED RESEARCH ON GENDER AND AGGRESSION

It is postulated in most studies, violence in women is different from that in men because of:

a)   Gender differences in aggression

b)   Gender specific risk and protective factors which can explain the development of aggression in girls.

c)   Relative risk of comorbid conditions and poor outcomes.

Taking into account, the gender differences in aggression, the following reviews are of utmost relevance.

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Some researchers hold that women on average are less aggressive than men (*Elliott*, 1994; *Maccoby* and *Jacklin*, 1974). Other maintain that gender differences either do not exist (*Cotton* et al. 1994; *Sheldon* & *Chesney* – Lind, 1993; *Tieger*, 1980) or exist only at specific developmental periods (*Hyde*, 1984). *Loeber* and *Hay* (1997) recently reviewed the evidence, which is summarized in the Table below:

Table 8 : Evolution, Manifestations and Gender Differences in Aggression and Violence from Infancy to Adulthood (*Loeber* & *Hay*, 1997).

Developmental Period	Manifestation	Gender Differences
Infancy	Frustration and rage	No
Toddlerhood	Instrumental Aggression	Few
Pre School	Personal Aggression	Yes
	Physical Fighting	Yes
Elementary School	Indirect Aggression	Yes
Middle and High School	Group and Gang fighting	Yes
	Aggravated Assault	Yes
	Sexual Violence	Yes
	Homicide	Yes

In general as seen above, gender differences in aggression, expressed through frustration and rage, are not documented in infancy. Instrumental forms of aggression emerge during toddlerhood, but few gender differences have been documented in the nature of aggressive acts displayed by girls and boys, from elementary school age onwards.

Several investigators have documented that women, rather than displaying physical aggression, tend to use more indirect and verbal aggression., including alienation, ostracism and character defamation (*Bjorkquist, Lagerspetz*, and *Kaukiainen* 1992, *Cairns et al.*, 1989, *Tremblay et al.*, 1996). In addition girls often display, relational aggression (*Crick*, 1995 – *Crick* and *Grotpeter*, 1995)

by exclusion of peers, gossip and collision directed at the relational bonds between "Friends". Lastly, a lower percentage of women as compared with men engage in serious forms of violence, including group fighting, gang fighting, aggravated assault, sexual violence and homicide (*Rutter* and *Giller*, 1983).

Frodi, Macaulay and *Thome* (1977) tried to review the experimental literature,, about whether women are less aggressive than men? In their research, the common held hypothesis, about men almost-always being more physically aggressive than women and the women usually displaying more indirect or displaced aggression, were not supported.

Also, evidence about sex differences (that sex role stereotypes would predict); seemed to appear, only in self report measures of general hostility or aggressiveness. Factors related to observed sex differences, include sex of the investigator/victim of aggression, empathy with the victim, guilt and aggression anxiety. Also it was seen, that when aggression is perceived as justified or prosocial and when these other factors are controlled, women may act, as aggressively as men. Some evidence in their research also suggests, men and women, react differentially to external aggressive cues and provocation. What may be anger provoking for men may only be anxiety provoking for women. The hypothesis "sex differences in aggression are biologically determined", was not examined here. So emphasis in this research, is basically on the phenotypic expression of whatever genetic-differences may exist.

Very similar results became distinct in the meta-analytic review of sex differences in aggressive behavior (*Eagly* and *Steffen*, 1986). They found that although men were somewhat more aggressive that women, but on an average, sex differences were inconsistent across studies. Also, the tendency for men to aggress more than women, was more pronounced for aggression which produces pain or physical injury, than for aggression that produces psychological or social harm. In addition, sex differences in aggressive

behaviour were larger to the extent when women, more than men perceived enacting a behaviour, which would produce guilt and anxiety in oneself, but also enable to produce harm to the target. So there interpretations of results emphasize, sex differences in aggression as a function of perceived consequences of aggression, which are learned, as aspects of gender roles and other social roles.

Another new factor of sex-aggression link was based on the study by *Mussweiler* and *Forster* (2000). They reported, men are more likely to behave aggressively, though women are more likely to perceive aggressive behaviour, than men. Their study demonstrates:

1. The basic semantic link between sex and aggression, exist for both the genders. This link, however, has opposing behavioural and perceptual consequences for men and women.

2. Sex priming facilitates aggressive behaviour only for men.

3. Women perceive, the ambiguous behaivour of a male target person as more aggressive, after sex priming.

Thus, they found that the perceptual and behavioural responses to sex priming are consistent with the experiences, men and women typically have with sex and aggression.

Differences between boys and girls in the developmental course of aggression are also found. Girl develop, antisocial behaviours mainly during adolescence rather than earlier, and most of these acts are of a non-aggressive nature as noted by (*Guze*, 1976, *McGee, Feehan, Williams, Anderson*, 1992, *Robins*, 1966, 1986; *Zoccolillo*, 1993). Reports on hazard rates (i.e. the rate of new cases emerging) revealed that violence peaks earlier for female adolescents than for male adolescents (age 14 Vs. age 16, respectively; *Elliott*, 1994; *Loeber, Huizingar* and *Thornberry*, 1996).

Furthermore, *Kratzer* and *Hodgins* (1996), in a large Danish study based on police records found, although early starter boys were responsible for most of

the delinquency committed by men in the cohort, more of the offenses by women, were committed by those who started offending as adults (45%) as compared with those who started of tending early in life (33%).

In addition, major shifts take place in victimization by each gender with age- *Cairns* and *Cairns* (1994) explained, cross gender conflicts increase with age, with girls reporting more conflicts with boys than boys report with girls. *Hilton*, *Harris* and *Rice* (2000) observed in their study, based on the selectionist theory, violence by males towards male peers originally served specific functions and violence to female peers, served others. A sample of 1,452 high school students were taken, which comprised of the victim and perpetrators, giving self-reports. In their first study, they reported, male to male aggression, was more prevalent, than male to female aggression.

For male to male aggression, perpetrator reports aggression with or exceeded victim reports – and victims were more often strangers than close friends.

In contrast, for male to female aggression, there were consistently fewer reports from perpetrators, than from victims and victims were less often stranger than girl friends. In study 2, similar findings were reported for frequency, number of victims and perpetrators, and sexual aggression. While in study 3, it was seen that girls aggression contrasted with that by boys with respect to intraversus inter sex aggression and perpetrator victim agreement.

Cloninger, *Christiansen*, *Reich* and *Gottesman*, 1978, *Mannuzza* and *Gittelman*, 1984, highlighted another important fact that gender differences in aggression may reflect different thresholds of risk factors, leading to different risk of expression of aggression in each gender. For example, deviancy and presumably aggression in women may become apparent only when they are exposed to higher number of risk factors than are men. Though as seen for reviews till now, threshold data specifically relevant to address the risk of aggression or violence in females are still wanted.

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2.6.1 Gender Specific Risk and Protective Factors

Inquiry and review below has been done with the concern, whether variations within each gender in aggressive offenses are explained by the same causes or whether different configurations of causes apply. *Rowe, Vazsonyi* and *Flannery* came to the conclusion that correlates of delinquency were very similar for men and women. On the contrary *Cloninger* et al. 1978 report, a higher prevalence of affected relatives among antisocial women than for antisocial men. While *Rivera* and *Widom* (1990) found abused or neglected girls were more likely to become violent later than were boys. Other researches indicate further differences in family correlates for girls and boys. (e.g. *Kavanagh* and *Hops* 1994; *Lytton* and *Romney* 1991; *Rothbaum* and *Weisz*, 1994). In addition, some studies have shown deviance by relatives is more pervasive for antisocial women than for antisocial men.

Adolescent Girls and Psychopathology: Several studies have investigated whether changes in pubertal status, (adolescence), especially early maturations are correlated with, an increase in the rate of behavioural and emotional problems in girls. Attention here, is drawn towards a study by *Sattin* and *Magnusson* (1990). They performed their study on a sample of 500 girls of Swedish community, to interpret and point on; whether early pubertal maturation in females, could be a cause for later behavioural and emotional maladjustments. Their study vividly brought forth the result that early maturing girls were more likely to have engaged in a variety of norm – breaking behaviours. They have had a higher contact with mental health professionals; with a higher rate of unwanted pregnancies in adolescence, as compared with on-time or late maturing girls. Other studies however claim that early onset of puberty has an impact on behaviour problems, only when other risk factors are present. As *Caspi* and *Moffit* (1991) tested several competing hypothesis regarding the relationship between the early onset of menstruation and the development of behaviour problems. Their results and those of other investigators have supported the idea, that early maturing girls, with a history

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of behaviour problems experience more adjustment difficulties in adolescence, than early maturing girls without a history of such problems (*Caspi, Lynam, Moffit* and *Silva,* 1993; *Caspi* and *Moffit,* 1991; *Petersen, Sarigiani* and *Kennedy,* 1991; *Rierdan* and *Koff,* 1993).

Another totally different aspect, was covered by *Tomar* (1999). She tried to find the effect of Humour, Economic status and gender, on the need for aggression among Indian adolescents of both the genders. The study, was carried out employing 2x2x2 factorial design. An incidental random sample of 40 adolescents (20 boys & 20 girls) was drawn amongst the students studying in Meerut.

These students were subjected to Humour test and TAT. Hence forth, 200 stories of TAT were analysed to find out, the need of aggression among adolescents. The students were subsequently classified into 8 cells, with 5 subjects in each cell, using the criteria of high humour, low humour, high economic and low economic status and lastly category of boys and girls.

The data analysed on the basis of chi-square test revealed, the need for aggression, as more pronounced amongst females. On the other hand, this need was also seen pronounced in those boys, with low humour and low economic status. It was additionally noted, that sense of humour had a cathartic effect and was a releaser of tension.

2.7 RATIONALE OF THE STUDY

Theme of the research and issues which have received focal attention :

Theme : Effectiveness of a therapeutic package of Rational Emotive Behaviour Therapy and Social Skills Training on aggressive Indian adolescents.

Rationale behind the study :The researcher was motivated to work upon this area, after watching the BBC News in May 1999, where a child shot at his

teacher, in the school premises of United States and the teacher succumbed to death immediately. A few days later another such incident was repeated. This imprinted a deep impact on the researchers mind and left a residue of thought, that our Indian adolescents are not too far away from a violent culture of aggression especially with their desire to ape the west. Moreover, as many research studies disclose, there has been a strong upsurge in the recent past, with an increased rise in aggressive behaviour as well as its expression. Manifested in forms of institutionalized aggression like war, at organizational level, at work place, in family discords and as an intensely damaging feature in interpersonal relationships. Thus, it can leave deep impact and repercussion on the mental well being of the individual. And since anger beats anger, it can move in the direction of creating severe psychological disbalance.

The purpose of this study is not another research work/Ph.D degree, lost in books but through medium of this study, the investigator intended to find solutions to combat the problem of aggression, which get deep seated in the adolescent stage. Also, the adolescent group, is most naive and vulnerable, to react impulsively in stressful situations. Thus, the investigator targeted for this group.

As a clinical psychologist and researcher, the investigator perceived an urgent need, to do concrete work in this area. Probing into the various methods to bring about reduction in aggression. The present research has been an attempt to work with scientific means and therapies for reducing aggression, in 'Indian adolescents'. In this context, the research process of the study involved, the development and implementation of a therapeutic package and to analyse its effectiveness, on the aggressive adolescent population. The purpose and direction of these research efforts entailed probing into the effectiveness of such tools; which if really effective; could aid professional counselors and psychologist in schools and clinical settings – enabling emotionally disturbed, aggressive individuals reduce such tendencies.

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To fulfil these objectives, the researcher did a pilot study on parent population to obtain their experience and views, on how aggression was controlled by parents of yesteryears. Thus, based on this support knowledge, the following package was constructed to meet the purpose of the study. The therapeutic package consisted of :

1) Rational Emotive Therapy :

This therapy advocates the idea that irrational beliefs produce ineffective behaviour and maladaptive emotions. These beliefs can be revised or altered by rational restructuring. This particular therapy was chosen, because after interaction with adolescents, it was recognized by the investigator, that if rationally dealt with and explained the consequences of their actions, along with their irrational beliefs could help them reduce their aggressive behavior. Further, no reviews related to this therapy were found in any of the Indian or foreign journals, which motivated the investigator more, to work in this area.

2) Social Skills Training :

Research studies indicate that aggressive individuals lack the set of skills, appropriate to behave in social situations. The aim of using this training was to teach them these skills through behaviour rehearsal, modeling, feedback and homework assignments; by means of which they could deal effectively and in socially appropriate ways with their environments. The researcher has tried to impart a few important social values, through the Social Skills Training. Value training is popularly given through the stories, lecture methods etc. The investigator in this context opted for the technique of social skills as the means to emphasize values, more relevant in the social context. The concept while framing the intervention program was to look out for exposing these individuals to real life settings as much as possible. The designed 'role plays' and 'behaviour rehearsals' were thought could facilitate the whole process better in this direction.

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3) Combined Therapeutic Package :

This package was utilized as no prior research studies disclosed a combined application of SST and REBT together. Though many therapeutic conditions involving multiple baseline treatments have been previously utilized; as has been mentioned in the review. But none viewed them together in combination. This motivated the investigator to tryout a new area of inquiry altogether.