

Anger Arousal in Child Abuse Counselling: An
Experimental Evaluation of Systematic
Desensitization and Cognitive Self-Control
Training Procedures

by



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A Thesis

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. Dedicated to my family
Roslynn, Jane and Philip

Abstract

The present study was designed to evaluate the effectiveness of systematic desensitization and cognitive self-control training procedures in reducing anger arousal, overt hostility, and aggression; and their effectiveness in increasing constructive action in therapists conducting counselling interviews with child abusers. Thirty graduate social work students who indicated that they sometimes become at least mildly angry toward parents or caretakers who physically abuse children participated in the study. The students who volunteered for the study were randomly assigned to three treatment conditions in a pretest/post-test control group design. Anger was aroused experimentally in the subjects using laboratory provocations which consisted of six imaginal interviews with abusive and non-abusive parents. The imaginal interviews were conducted in a language laboratory using an automatically synchronized slide-tape program. The systematic desensitization and cognitive self-control treatments consisted of two one-hour training sessions administered within the same week.

The criterion measures employed in the experimental study included (a) Reaction Inventory (Evans & Stangeland, 1971), (b) Buss-Durkee Hostility Inventory (factor analytic version - Bendig, 1962), (c) Hostility Scale Applicable to Verbal Samples (Gottschalk, Winget, & Gleser, 1969), (d) Self-Report Rating of Anger Scale (Novaco, 1975), (e) Self-Report Rating of Aggression Scale (Novaco, 1975), and (f) Self-Report Rating of Constructive Action Scale (Novaco, 1975).

Analysis of covariance of the experimental data indicated no statistically significant treatment differences on any of the six dependent measures. Although statistical significance was not achieved, the pre-treatment and post-treatment means showed changes in the desired direction on the six dependent measures for the systematic desensitization treatment group. The cognitive self-control treatment group means showed changes in the desired direction on five of the dependent measures.

The empirical results were discussed with reference to theoretical concepts of anger arousal, and the research literature on experimental studies of training procedures relevant to anger control.

Résumé

La présent étude se propose de mesurer l'efficacité des procédés de désensibilisation systématique et d'entraînement du contrôle-de-soi afin de réduire l'augmentation de colère, l'expression d'hostilité et l'aggression; et leur efficacité à augmenter les actions constructives des thérapeutes dans leurs sessions avec les violenteurs d'enfants. Trente étudiants en Travail Social, qui ont révélé qu'ils ressentaient une plus ou moins forte augmentation de colère envers les parents ou les gardiens qui violentent des enfants, ont participé à cette recherche. Les volontaires ont été assignés au hasard à trois conditions de traitement dans un groupe de contrôle de pré- et post-tests. La colère a été augmentée chez les sujets par voie expérimentale en utilisant des provocations en laboratoire, lesquelles consistaient en six interviews imaginaires avec des parents abusifs et non-abusifs. Les interviews furent conduits dans un laboratoire de langues en utilisant un programme automatiquement synchronisé d'audio-visuel. Les traitements de désensibilisation méthodique et le contrôle-de-soi cognitif consistaient en sessions d'entraînement d'une heure, administrées dans la même semaine. Les critères

employés dans cette étude expérimentale incluaient les éléments suivants: a) Reaction Inventory (Evans & Stangeland, 1971); b) Buss-Durkee Hostility Inventory (factor analytic version - Bendig, 1962); c) Hostility Scale Applicable to Verbal Samples (Gottschalk, Winget & Gleser, 1969); d) Self-Report Rating of Anger Scale (Novaco, 1975); e) Self-Report Rating of Aggression Scale (Novaco, 1975) and f) Self-Report Rating of Constructive Action Scale (Novaco, 1975). L'analyse de variantes des données expérimentales n'indiquait aucune différence statistiquement significative du traitement sur les six mesures dépendantes. Malgré le fait que la signification statistique n'était pas atteinte, les moyennes de pré- et post-traitements montrèrent des changements dans le sens désiré sur les six mesures dépendantes pour le groupe de traitement de désensibilisation systématique. Les moyennes du groupe de traitement du contrôle-de-soi cognitif montrèrent des changements dans le sens désiré sur cinq des mesures dépendantes. Les résultats empiriques ont été discutés en référence avec les concepts théoriques de l'augmentation de la colère et les articles sur les études expérimentales des procédures d'entraînement se rapportant au contrôle de la colère.

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Chapter I

The Problem

The problem investigated in this study was the reduction of therapist anger in child abuse counselling. It has been observed that therapists' strong feelings of anger towards the abusing parents or caretakers can prevent the establishment of an effective helping relationship. In order to help child abusers, therapists must reduce their angry feelings to a more manageable level. A major difficulty for child abuse therapists is the lack of specialized training procedures in anger control. It is the need to design and evaluate different training procedures in anger control that this study attempted to meet.

Purpose of the Study

The purpose of this study was to evaluate experimentally the effectiveness of systematic desensitization and cognitive self-control training procedures in reducing anger arousal, overt hostility, and aggression; and their effectiveness in increasing constructive action in therapists conducting counselling interviews with parents who physically abuse their children. The study was, therefore, designed

to provide empirical evidence supporting the use of systematic desensitization or cognitive self-control training procedures in the professional preparation of social workers, psychologists, psychiatrists, and other child abuse workers involved in treatment interventions.

Background Information

In numerous known and publicly recorded instances children have been victimized by those responsible for their care. Children have been brought into hospitals with skulls fractured and bodies covered with lacerations. One parent disciplined a child for presumptive misbehavior with the buckle end of a belt, perforating an intestine and killing the child. Children have been whipped, beaten, starved, drowned, smashed against walls and floors, held in ice water baths, exposed to extremes of outdoor temperatures, burned with hot irons and steam pipes. Children have been tied and kept in upright positions for long periods. They have been systematically exposed to electric shock, forced to swallow pepper, soil, feces, urine, vinegar, alcohol, and other odious materials; buried alive; had scalding water poured over their genitals; had their limbs held in open fire; placed in roadways where automobiles would run over them; placed on roofs and fire escapes in such a manner as to fall off; bitten, knifed, and shot; had their eyes gouged out.

(Bakan, 1971, p. 4)

It is difficult to accept the fact that some parents or caretakers deliberately inflict injury on infants and little children. Regardless of what we believe, the existence of such behavior is well documented.

Numerous hospital records (Birrell & Birrell, 1966; Birrell & Birrell, 1968; Cohen, Raphling, & Green, 1966; Elmer, 1963; Gregg & Elmer, 1969; Heins, 1969; Holter & Friedman, 1968; Kempe, Silverman, Steele, Droegmueller, & Silver, 1962; McHenry, Girdany, Elmer, 1963; Ounsted, Oppenheimer, & Lindsay, 1975; Paulson & Blake, 1969; Silver, Dublin, & Lourie, 1969; Storey, 1964) nation-wide surveys (Gil, 1973; Kempe, Silverman, Steele, Droegmueller, & Silver, 1962); welfare agency reports (Allen, Kosciulek, ten Bense, & Raile, 1969; Johnson & Morse, 1968) and coroners' files (Adelson, 1961) clearly demonstrate the fact that child abuse exists. Although the actual incidence of inflicted injury is not known (Bain, 1963; Bain, Milowe, Wenger, Fairchild, & Moore, 1965; Cohen & Sussman, 1975; Fontana, 1964; Fontana, Donovan, & Wong, 1963; Holter & Friedman, 1968; Karelitz et al., 1966; Schlesinger, 1977; Zalba, 1966), it is certain that available figures represent only a fraction of the total number of abused children (Bain, 1963; Bakan, 1971; Birrell & Birrell, 1968; Elmer,

1963; Fleming, 1967; Fontana, 1964; Fontana, Donovan, & Wong, 1963; Gelles, 1975; Van Stolk, 1972).

The recognition of child abuse as a serious health problem has resulted in the provision of a variety of social services. In Québec, for example, the need for social services has resulted in the enactment of the Youth Protection Act (Bill No. 78) and the creation of a youth protection committee. Established under the name of "Comité pour la protection de la jeunesse" and immune from prosecution for acts performed in good faith, "It is the function of the committee to promote the protection of children subject to physical ill-treatment as the result of abuse or neglect, to prevent such abuse and neglect and to preserve the family life of the child as far as possible" (Section 14b, Bill 78, p. 5). Legal recognition of the need for protection services clearly demonstrates the concern of the public and the helping professions for the plight of the abused child. The helping professionals are especially concerned with the prevention of child abuse. Much of this concern is focused on the individual and his family: "As doctors, psychologists, and social workers come to a greater understanding of the problems that lie behind child abuse, the main consideration

in each individual case has become: 'Must this child lose his parents? What is best for him and his family?'" (Schlesinger, 1977, p. 9).

Current approaches to the prevention of physical abuse of children usually consist of after-the-fact or post-incidence interventions. This approach emphasizes early identification and prompt treatment of the abused child and the abusing parent or caretaker (Alvy, 1975; Bain, 1963; Bain, Milowe, Wenger, Fairchild, & Moore, 1965; Beer, 1975; Birrell & Birrell, 1966; Birrell & Birrell, 1968; D'Agostino, 1975; Delsordo, 1963; Fleming, 1967; Galdston, 1965; Heins, 1969; Hill, 1975; Johnson & Morse, 1968; Kempe, Silverman, Steele, Droegemueller, & Silver, 1962; Kempe & Helfer, 1972; McHenry, Girdany, & Elmer, 1963; Ounsted, Oppenheimer, & Lindsay, 1975; Paulson & Blake, 1969; Pollock, 1968; Pollock & Steele, 1972; Robertson, 1976; Schneider, Pollock, & Helfer, 1972; Smith, Hanson, & Noble, 1975; Steele, 1970; Steele & Pollock, 1974; Stroud, 1975; Thomson, Paget, Bates, Mesch, & Putnam, 1971; Tracy & Clark, 1974; Wasserman, 1967; Zalba, 1966; Zalba, 1967). Effective treatment of the abused child usually requires medical, psychiatric, psychological, and social work services. Temporary or permanent removal of the child

from the home is sometimes necessary. Following an initial assessment interview, the abusing parent or caretaker is also given treatment. Individual counselling or psychotherapy, group therapy, home visits, or referral to self-help groups are the interventions most commonly used. The main purpose of these treatment interventions is to minimize the negative consequences of child abuse, for the parent as well as the child, and to prevent any recurrence of the abusive behaviour.

The Problem Situation

From the initial counselling interview to the termination of therapy, treatment interventions are unusually demanding of those involved with helping the abusing parent or caretaker. One difficulty is that abusive people have many abnormal personality characteristics. They are often emotionally immature (Allen, 1969; Cohen, Raphling, & Green, 1966; Fontana, 1973; Holter & Friedman, 1968; Ounsted, Oppenheimer, & Lindsay, 1975; Smith, Hanson, & Noble, 1975; Steele, 1970), dependent (Delsordo, 1963; Flynn, 1970; Holter & Friedman, 1968; Ounsted, Oppenheimer, & Lindsay, 1975; Smith, Hanson, & Noble, 1975; Steele, 1970), impulsive

(Allen et al., 1969; Cohen, Raphling, & Green, 1966; Holter & Friedman, 1968; Johnson & Morse, 1968; McHenry, Girdany, & Elmer, 1963), distrustful (Beer, 1975; Bellucci, 1972; Johnson & Morse, 1968; McHenry, Girdany, & Elmer, 1963) and demanding (Allen et al., 1969; Cohen, Raphling, & Green, 1966). Many abusers are also openly hostile (Alexander, 1972; Fontana, 1973; Johnson & Morse, 1968) and angry (Bellucci, 1972; Court, 1975; Flynn, 1970; Holter & Friedman, 1968; Stroud, 1975; Zalba, 1967) especially towards people in positions of authority. The abnormal personality traits of abusive people makes them very difficult clients to treat.

Another difficulty for those involved in providing treatment has to do with the kind of helping relationship needed to treat the child abusers. Regardless of the abuser's personality traits, the psychiatrist, psychologist, or social worker must establish a therapeutic relationship that is of the highest standard. The therapist is expected to be sympathetic (Court, 1975; Kempe et al., 1962; Kempe & Helfer, 1972; Pollock & Steele, 1972; Robertson, 1976; Steele, 1970; Steele & Pollock, 1974), understanding

(Alexander, 1972; D'Agostino, 1975; Ebeling, 1975; Johnson & Morse, 1968; Robertson, 1976; Schneider, Pollock, & Helfer, 1972), empathic (Kempe & Helfer, 1972; Ounsted, Oppenheimer, & Lindsay, 1975; Pollock, 1974), open (Ounsted, Oppenheimer, & Lindsay, 1975), honest (Ebeling, 1975), and positive (Hill, 1975). Therapists are also expected to be non-critical (Kempe & Helfer, 1972; Pollock & Steele, 1972; Savino & Sanders, 1973; Steele & Pollock, 1974), non-condemning (D'Agostino, 1975), non-punitive (Holter & Friedman, 1968; Hill, 1975), non-threatening (D'Agostino, 1975), and non-judgmental (Ebeling, 1975; Holter & Friedman, 1968; Kempe & Helfer, 1972; McHenry, Girdany, & Elmer, 1963; Pollock & Steele, 1972; Steele, 1970) in their work with abusers. Establishing and maintaining this kind of helping relationship is demanding enough when working with ideal clients in the best of circumstances. Obviously, the treatment difficulties which are unique to child abuse work place considerable demands on the therapist's counselling skill.

Statement of the Problem

The major difficulty for the therapist in his helping relationships with child abusers is his own emotional reactions, particularly his feelings about the parents or caretakers and what they have done to their child (Alexander, 1972; D'Agostino, 1975; Ebeling, 1975; Goldberg, 1975; Hill, 1975; Kempe & Helfer, 1972; Lipner, 1975; McHenry, Gridany, & Elmer, 1963; Robertson, 1976; Steele, 1970; Steele & Pollock, 1974; Wasserman, 1967; Zalba, 1966).

Certain authors have been specific in expanding on the emotional reactions which therapists experience in dealing with child abusers, as can be determined from the following statements:

Beginning to establish a therapeutic relationship with these families is often the most difficult phase. Our own intense feelings about abuse, and more specifically the feelings about particular parents and what they have done to their child, must be openly recognized. Our own children come before our eyes and disbelief and fury play havoc with the attempts to be helpful and understanding. (Alexander, 1972, p. 22)

Often the first task a therapist faces is dealing with his own feelings. No matter how accustomed a psychiatrist may be to the foibles and misbehaviors of human beings, the knowledge or sight of a baby seriously hurt by his care-taker can be a potent stimulus to emotional reaction. (Steele, 1970, p. 474)

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Probably the first difficulty met by the therapist is the management of his own feelings about a parent who has hurt a small baby. (Steele & Pollock, 1974, p. 124)

The most common emotional reaction experienced by child abuse workers is the feeling of anger directed at the abusing parents or caretakers (Alexander, 1972; Court, 1975; Ebeling, 1975; Hill, 1975; Holter & Friedman, 1968; Kempe, et al., 1962; Kempe & Helfer, 1972; Kurlansky, 1977; Lipner, 1975; Robertson, 1976; Steele, 1970; Thomson, et al., 1971; Wasserman, 1967).

When child abuse is discussed, most people immediately picture the battered baby, with multiple fractures and bruising or burns. Initial reactions are usually those of horror or anger directed toward the parent.
(Thomson et al., 1971, p. 31)

This initial denial that the problem exists may then be followed by anger and hostility directed towards the parents...
(Holter & Friedman, 1968, p. 130)

There is a strong tendency to deny parental abuse and blame the injuries on accidents and obscure diseases, or on the other hand, to feel angry and punitive toward the abuser.
(Steele, 1970, p. 474)

As might be expected, the level of anger aroused in the therapist can be considerable:

In the early course of this work a few of the foster grandparents were assigned battered children. Some were totally unable to form any relationship with the parents of these children because of their understandable great anger.

(Kempe & Helfer, 1972, p. 43)

One possibility is that the arousal of the physician's antipathy in response to such situations is so great that it is easier for the physician to deny the possibility of such attack than to have to deal with the excessive anger which surges up in him when he realizes the truth of the situation.

(Kempe et al., 1962, p. 19)

The serious treatment difficulties that can be caused by the therapist's strong feelings of anger towards the abuser are well documented (D'Agostino, 1975; Ebeling, 1975; Hill, 1975; Kempe & Helfer, 1972; McHenry, Girdany, & Elmer, 1963; Robertson, 1976; Steele, 1970; Steele & Pollock, 1974; Thomson et al., 1971; Wasserman, 1967; Zalba, 1966). For example, some writers say:

Anger is a natural reaction and protection of the children essential but when mixed together they can be explosive and lethal to the development of any therapeutic attempt with the family.

(Alexander, 1972, p. 22)

The very nature of the subject tends to evoke strong feelings of anger towards the parents...such emotions can be devastating to the establishment of an effective therapeutic relationship with the parents and child...

(Kurlansky, 1977, p. 11)

Of course, it is quite natural to be shocked and angry when child abuse occurs; certainly, protection of the child is essential. However, unrecognized feelings of anger in professionals can deter any therapeutic efforts with the parents.

(Lipner, 1975, p. 32)

Clearly, the way the therapist manages his angry feelings greatly effects the treatment process and outcome (D'Agostino, 1975; Ebeling, 1975; Elmer, 1960; Goldberg, 1975; Hill, 1975; Lipner, 1975; Robertson, 1976; Steele, 1970; Steele & Pollock, 1974; Thomson et al., 1971; Wasserman, 1967; Zalba, 1966). Specifically, it is very important for the therapist to reduce and control his angry feelings towards the abuser:

If the social worker is to be effective in handling cases of suspected abuse, he must clearly discover what visions he has of the abusing parent, and he must be able to control the angry and punitive feelings which may accompany these visions.

(Thomson et al., 1971, p. 31)

The experience gained by interviewing the adults involved with bone-injured patients showed that the clinician had a most difficult assignment. He must overcome personal feelings of shock and anger... (McHenry, Girdany, & Elmer, 1963, p. 907)

Probably the first difficulty met by the therapist is the management of his own feelings about a parent who has hurt a small baby. Most people react with...horror and a surge of anger toward the abuser. It helps to gain a more useful neutral position... (Steele & Pollock, 1974, p. 124)

The need to control angry feelings is also very important in cases involving sexual abuse, especially when the person being treated is the abused child:

It is vital that the interviewer accept the child's candid responses calmly; if the adult becomes angry or embarrassed, the child may feel guilty and responsible for his own injuries. Evidence of sexual abuse in particular confronts the adult with a strong taboo and may evoke in the interviewer deep anger, confusion, or disgust. These reactions must be controlled because they will interfere with subsequent evaluation of the child.

(McNeese & Hebeler, 1979, p. 17)

Therefore, therapists involved in child abuse work must know how to reduce and control their anger in all their helping relationships with abusive families. Ebeling (1975) states: "It is our responsibility to study and be aware of our own reactions in order to maintain objectivity and to

be as emotionally free as possible in our relationships with those to whom we are giving service" (p. 48). The need for anger control in stressful situations, such as counselling an abusive parent, is stated well by Novaco (1976): "The ability to manage internal arousal states and to adapt to stress events has become an increasingly necessary psychological skill" (p. 1127).

Given the importance of anger control in helping relationships, especially those involving child abusers, it is incumbent upon all professional therapists to learn how to reduce and control their angry feelings. The need for further research and development of training procedures that meet the special learning requirements of treatment personnel is well recognized. Alvy (1975) states the problem clearly: "Personnel in the service delivery systems are often untrained, undertrained, or unsupported in dealing with these emotionally demanding cases of individual physical abuse. There is a great need for more training and support of personnel who deal with these cases" (p. 923). Van Stolk (1972) is also aware of the problem. Commenting on the professional training of Canadian social workers in child abuse work, she points out that: "... social workers

are often left to acquire their understanding of these cases empirically, and are hence often unprepared, either by the social agencies whom they represent or by their training in the schools of social work, to deal with them." (p. 69).

In response to the need for better training programs, the National Center on Child Abuse and Neglect, Children's Bureau, Office of Child Development, U.S. Department of Health, Education, and Welfare prepared a curriculum for multidisciplinary training of child abuse workers called, "We Can Help...". One of the stated goals in unit three of the core curriculum, identifying the physically-abused child, is: "To assist trainees in developing an awareness of their feelings -- personal and professional -- about the physical abuse of children and to assist them in determining appropriate ways of managing these feelings in their work" (p. 3-1). The worker's feelings towards abusers and the impact of those feelings on the helping relationship are given particular attention in unit three.

The need for special training procedures in emotional control is also recognized in unit six of the core curriculum, identifying the sexually-abused child. One of the training goals is: "To enable trainees to become aware of their own feelings about reporting and/or intervening in

cases of suspected sexual abuse, and to examine the impact of those feelings on their professional functions" (p. 6-1). As might be expected, one of the feelings that is often discussed by trainees is anger. Group discussions about feelings produce comments like: "Religious teachings about sex and particularly incest are generally so strong that violating these taboos stirs up very strong feelings of revulsion, anger, etc." (p. 6-6). Clearly, one important emphasis in the "We Can Help..." training program for child abuse workers is feelings, such as anger, and methods of managing these feelings in helping relationships.

The need for some kind of specialized training in child abuse work, especially anger control, is also recognized by Novaco (1975). Commenting on the possible application of his own training procedures in anger control, he states: "Some of the anger management principles are...appropriate for the regulation of reactive anger experienced by treatment personnel whose indignation toward the battering parent can interfere with the helping process" (p. 70).

Given the seriousness of the anger control problem in child abuse work, and the lack of specialized training procedures in anger control suitable for treatment personnel, the need to design and evaluate appropriate training

procedures is crucial. Specifically, there is an important need to evaluate the effectiveness of different training procedures in helping the therapist reduce and control his anger toward child abusers in his helping relationships.

Definition of Child Abuse

In general, the term "child abuse" denotes a spectrum of individual maltreatment which ranges from situations in which the child is deprived of food, clothing, shelter, and parental love to situations in which the child is a victim of premeditated physical trauma causing permanent crippling or death (Birrell & Birrell, 1966; Birrell & Birrell, 1968; Cohen & Sussman, 1975; Cohen, Raphling, & Green, 1966; Fleming, 1967; Fontana, Donovan, & Wong, 1963; Fontana, 1964; Karelitz, et al., 1966; Robertson, 1976). The milder forms of individual maltreatment are commonly called "neglect" (Cohen & Sussman, 1975; Fontana, 1964; Renvoize, 1975; Van Stolk, 1972) and the extreme forms are usually called "battering" (Alvy, 1975; Beer, 1975; Curtis, 1963; Cohen & Sussman, 1975; Fontana, 1964; Kempe et al., 1962; Morris & Gould, 1963; Ounsted, Oppenheimer, & Lindsay, 1975; Renvoize, 1975; Smith, Hanson, & Noble, 1975; Smith, Honigsberger, & Smith, 1975; Storey, 1964;

Thomson, et al., 1971; Van Stolk, 1973). Sometimes the general term "abuse" is used synonymously with "battering" (Allen et al., 1969; Bain, et al., 1965; Flynn, 1970; Karelitz, et al., 1969; Kempe & Helfer, 1972; Silver, Dublin, & Lourie, 1969; Steele & Pollock, 1974; Thomson, et al., 1971; Wasserman, 1967).

For purposes of this study, the term "child abuse" denotes a specific range within the broad spectrum of individual maltreatment. Thus "child abuse" in this study was defined as deliberate physical attack on the child by the parents or caretaker causing minimal as well as fatal injury. It is this type of maltreatment that is normally seen in the hospital and the type that can result in protection for the child and therapy for the parents or caretaker. Accordingly, the following definition of child abuse was used for the present study: non-accidental physical attack on a child by a parent or caretaker causing bodily injury and which leads to medical treatment for the child and psychiatric, psychological, or social work treatment for the parent(s) or caretaker.

Chapter II

Review of the Literature

The discussion of related literature focuses on the dynamics of anger arousal and anger control. Different kinds of anger eliciting stimuli are identified and discussed. The review of the literature will begin with anger arousal and continue with its relationship to anxiety, hostility, and aggression. Following this review, some of the cognitive factors that mediate the stimulus-anger arousal-aggression relationship are also discussed. Finally, experimental studies demonstrating the effectiveness of cognitive self-control and systematic desensitization training procedures in reducing anger arousal are reviewed. The studies discussed include experiments in which anger was reduced in persons having chronic anger control problems, criminal offenders with anger control problems, graduate students with anger and aggression control problems, and students who experienced anger while operating an automobile. Two of the studies reviewed involve the experimental arousal of anger in persons without anger control problems.

The Dynamics of Anger Arousal

Anger Arousal. Anger Arousal is an emotional response to certain kinds of incentive stimuli. One class of incentive stimuli consists of events that "...threaten the beliefs or values of the person; they imply that his standards are incorrect, invalid, or, more seriously, morally reprehensible" (Janis et al., 1969, p. 497). The affective state labelled as anger, therefore, is not only characterized by specific physiological arousal (Ax, 1953; Funkenstein, King, & Drolette, 1954; Schachter, 1957), but it occurs under certain incentive or stimulus conditions. Threats to one's standards by another person or group is one important incentive condition. In fact, one of the major instigators of anger and hostility is "...threats to dearly-held values" (Janis et al., 1969, p. 498).

Pankratz, Levendusky, & Glaudin (1976), in a survey study of situations that elicit anger in college students, identified several different categories of anger eliciting stimuli. Two stimulus categories are Aversive Traits and Cruelty and Aggression. The aversive trait category includes anger elicited by some aversive trait, behaviour, or characteristic in another person. It is one of the most frequently occurring kind of anger-eliciting stimuli. Cruelty

and Aggression is another major category of anger-eliciting stimuli identified in the survey. It includes items of maliciousness, mental or physical cruelty, injury, suffering, or aggression. The results of the study show that people have little difficulty identifying the environmental or situational antecedents of their own anger arousal.

Further evidence that anger arousal occurs in response to specific stimuli is found in a study by Evans and Stangeland (1971). They purposely developed the Reaction Inventory to measure anger and to isolate in individuals the specific stimulus situations that result in anger arousal. A matrix of inter-item correlations was computed from the responses of test Ss on the 76 items of the inventory. Factor analysis of the matrix produced ten different factors. One major factor identified is Destructive People which accounted for 5.6% of the variance. Not surprisingly, "people being cruel to children" is one of the Reaction Inventory items with a factor loading greater than 0.50 (0.51).

Anger Arousal and Anxiety. Anger arousal is often accompanied by feelings of anxiety. Rothenberg (1971) believes that "anger, especially, is always accompanied by anxiety" (p. 458). Both anger and anxiety, he argues, are aspects of a diffuse, alerted, and aroused state arising from some threat, obstruction, or imagined source. Anger is the predominant manifestation of the aroused state when the motoric arousal is directed at the source or imagined source of threat or obstruction. When the motoric arousal is undirected or is directed toward avoidance or escape, anxiety becomes the predominant manifestation of the aroused state. However, neither anger nor anxiety occurs exclusive of the other. In situations where action is inhibited and anger is unexpressed, the anxiety associated with anger is especially obvious. The hostile destructive thoughts and words accompanying anger, Rothenberg argues, is an immediate response that defends against the sense of helplessness associated with anxiety. He states: "If we think of hitting someone or even killing someone, we feel far more powerful and in control of the situation than if we think of fleeing or doing nothing..." (p. 459). Thus, anger is a defense against feelings of anxiety or, at least, a preferred reaction.

Novaco (1976) also believes that it is less distressing to be angry than to be anxious. He views anger as a protective reaction to anxious feelings of vulnerability. The arousal of anger, he argues, effectively pre-empts the anxious feelings of vulnerability. It does so by directing attention away from one's own conflicted and anxious feelings onto something external.

Russell and Mehrabian (1974) define anger and anxiety in terms of three bipolar and independent dimensions of emotional response to stressful situations: pleasure-displeasure, arousal-nonarousal, and dominance-submissiveness. They believe that anger consists of feelings of displeasure, high arousal, and dominance and anxiety consist of feelings of displeasure, high arousal, and submissiveness. Anger and anxiety, therefore, differ mainly along the dominance-submissiveness dimension. The element of control is an important aspect of this dimension: "Dominance refers to the degree to which a person feels powerful or in control of a situation" (p. 79). Although Russell and Mehrabian studied anger and anxiety as emotional reactions to physical aspects of the environment they recognize that the feeling of control which anger provides is probably more pronounced in social situations which contain larger variations of dominance-submissiveness feelings.

Anger Arousal and Hostility. Anger arousal is commonly associated in people's minds with hostility (Novaco, 1976). In fact, "Anger is often equated with hostility because we observe the two phenomena occurring together fairly frequently" (Rothenberg, 1971, p. 456). Many researchers, for example, equate the subjective experience of anger affect with the concept of hostility (Gottschalk, Gleser, & Springer, 1963). But, the arousal of anger is quite different from hostility:

The affect of anger should be differentiated from the motive of hostility. Hostility is a wish for a specific class of goals: to cause pain, distress, or anxiety to another person or a surrogate of that person. The person to whom the hostility is directed is the one who is believed to be...the one who threatens the valued standards.

(Janis et al., p. 497)

Rothenberg (1971) differentiates anger from hostility in essentially the same way: "The critical distinction between anger and hostility is that hostility always has a destructive component, whereas anger does not" (p. 45). However, it is important to keep in mind that, although anger and hostility are different and can and do occur separately, they often occur together (Janis, Mahl, Kagan, & Holt, 1969; Rothenberg, 1971).

Anger Arousal and Aggression. Anger arousal is frequently equated with aggression (Rothenberg, 1971). Some aggression inventories, for example, confound the awareness of angry feelings with the manifestations of anger in behaviour (Zelin, Adler, & Myerson, 1972). However, it is more accurate to treat anger arousal as an antecedent or determinant of aggressive behaviour. The relationship between anger arousal and aggression is the basis of much research on aggression where anger is first induced to promote aggressive behaviour (Carlisle, 1972; Carlisle & Howell, 1974; Diamond, 1977; Green & Murray, 1975; Licht, 1967; Middleton, 1972).

Rule & Nesdale (1976), after an extensive review of the literature, conclude that "...when a person's aroused state is anger, the anger acts as a determinant of aggression, which is directed primarily toward the goal of injuring the source of the anger state" (p. 853). They also conclude that "...the specific arousal state of anger is an antecedent of aggressive behaviour, regardless of whether that anger is precipitated by goal blocking or insult" (p. 859).

The definition of aggression formulated by Janis, Mahl, Kagan, & Holt (1969) makes the distinction between anger and aggression clear: "Aggression is an act that (1) causes pain, anxiety, or distress to another person (or damage to an object), and (2) is in the service of a hostile wish or the affect of anger" (p. 499).

Baron's (1971a, 1971b, 1972, 1974) series of studies on the variables that reduce the impact of filmed or live aggressive models on aggression in anger-aroused subjects demonstrate clearly the role of anger in aggression. His first three experiments which focused on such variables as level of pain cues emitted by a victim (1971a), aggressor-victim similarity (1971b), and temperature (1972) show that the effect of prior anger arousal on aggression is significant. Baron's (1974) fourth study focused specifically on the degree of prior anger arousal experienced by the aggressor as a determinant of aggression. The results of the experiment indicate that an aggressor's reactions to a victim's pain cues greatly depend on the degree of prior anger arousal. Thus, a victim's prior cues tend to facilitate aggression when the aggressor has experienced prior anger arousal.

Waldman's (1971) study provides further evidence that prior anger arousal is a key determinant of aggression. His experiment was designed specifically to investigate the effects of exposure to a non-aggressive model, similarity to the model and prior anger arousal on adult aggressive behaviour. As predicted, the results show that, angered subjects are more aggressive than non-angered subjects. Specifically, exposure to a non-aggressive model is effective in reducing subsequent aggression only when subjects are not previously angered.

Evans and Stangeland (1971) also demonstrated that aggressive behaviour is directly related to the level of anger arousal. They found significant correlations between the "degree of anger" score on the Reaction Inventory and the Buss-Durkee Inventory, a conventional measure of aggression.

Anger Arousal and Cognition. Although prior anger arousal is a necessary condition for aggressive behaviour to occur it is not a sufficient condition. The anger arousal-aggression relationship is a complex one, mediated by cognitive factors. The nature of this complex relationship is the focus of much research effort.

Berkowitz, Lepinski, and Angulo (1969), for example, studied the effect of anger on aggression as a function of a person's judgment about the appropriateness or propriety of aggression in a given situation. Subjects were all angered moderately and then led to believe that their provocator had aroused either low, moderate, or high anger. Results showed that subjects in the medium-anger group were more aggressive than subjects in either of the other two groups. Thus, information given subjects about their level of anger has a significant effect on aggression. Specifically, the results show that anger aroused people are aggressive in proportion to how much they think their anger state is appropriate to a given situation.

Turner (1971) investigated factors that affect a person's perception of a link between his internal reactions and a specific external object or event and, consequently, act as a determinant of aggressive behaviour. Specifically, he examined the process by which a person incorporates and resolves discrepancies between sources of anger information when an interpretation of the link between his internal reaction and some specific object or event is made. The results show that when external anger cues are comparable to internal anger cues, i.e., both sources of information

fall within a person's "latitude of acceptance", the external anger information has a greater chance of being accepted by the person and influencing aggressive behaviour.

Cognitive factors also influence aggressive behaviour by mediating the 'stimulus'-anger arousal relationship. Fry and Ogston (1971), for example, investigated the hypothesis that interruption-produced arousal can become anger arousal or euphoria depending on the person's cognitive appraisal. Their central hypothesis is that subjects experiencing interruption-produced arousal are more susceptible to cognitive manipulations than non-aroused subjects. The cognitive manipulation consisted of exposure to either a euphoric or an angry model. The results showed that exposure to a euphoric model has little effect on either aroused or non-aroused subjects, while exposure to an angry model has greater effect on aroused subjects.

Geen, Rakosky, and Pigg (1972) studied the problem of labelling of arousal. They argue that when a person is aroused simultaneously by an attack and by another stimulus the person acts according to the emotion which he judges himself to be experiencing. Further, the judgment depends



to a great extent upon the decision made as to the origin of the felt arousal. The decision the person makes is made upon the basis of cognitions which he has regarding the immediate situation. Cognitions, in turn, are influenced by information. Specifically, Geen, Rakosky, and Pigg (1972), using manipulated feedback, tested to see if subjects who thought themselves to be sexually aroused would be less aggressive than subjects who believed they were aroused by an attack made on them. Results show that subjects who believe their arousal state is sexual are less aggressive than those who attribute their arousal to the attack made on them. Thus, aggressive behaviour is partly determined by a person's interpretation of the aroused state which he experiences.

Konecni (1975) also investigated cognitive factors as mediating influences in the stimulus-anger arousal-aggression relationship. As well as showing an overwhelming main effect for anger, his results demonstrated that aggression-enhancing stimuli, known to raise the level of arousal, have very little direct effect on aggression if they are not conducive to the anger label. However, when anger has already been induced, other arousal-provoking stimuli augment the amount of aggression.

Loftis' (1975) study focused on the role causal attributions play in mediating emotional arousal, and thus, aggressive behaviour. Subjects induced to misattribute their anger arousal to extraneous stimuli are less aggressive than subjects who attribute it to an antagonist. In fact, subjects who misattribute their anger arousal are less aggressive than non-angered subjects. Although Loftis' results indicated that causal attributions have no simple effect on arousal level, the misattribution subjects exhibited a strong negative correlation between aggression and arousal level. In contrast, subjects who received no causal attribution demonstrated a positive correlation between aggression and anger arousal.

Reduction of Anger Arousal: Experimental Studies

Cognitive Self-Control. Novaco (1975) examined the extent to which cognitive self-control processes and relaxation procedures could regulate anger in persons having chronic anger control problems.

The experiment consisted of four treatment conditions: cognitive control combined with relaxation training, cognitive control alone, relaxation training alone, and an attention control group. Thirty-four male and female

subjects, who were assessed as having real anger control problems, were selected from a volunteer group of 41 persons. The 34 participants were graduate and undergraduate students, university staff members, and community residents. There were 18 males and 16 females ranging in age from 17 to 42 years in the treatment program. Following the pre-treatment assessment of anger reactions, subjects were randomly assigned to the four treatment groups. Male and female subjects were balanced across groups. The combined treatment and cognitive control alone groups each had nine subjects. The relaxation training alone and the attention alone groups each had eight subjects.

Treatment conditions were evaluated in a pre-post control group design by an anger inventory of 90 provocation items and by laboratory provocations in three modes: imaginal, role-playing, and direct experience. Self-report, galvanic skin response, and blood pressure indices were used to measure anger in the laboratory provocations. The self-report instrument included anger arousal and three coping behaviour scales. The coping strategies scales provided indices for verbal antagonism, physical antagonism, and constructive action.

The laboratory provocations in the imaginal mode involved three instances -- one neutral experience and two provocation experiences. The neutral experience, which was the initial instance in the sequence, involved an information exchange interaction. All the provocations were of an interpersonal nature. Before beginning the provocations, the subject was seated for five minutes to allow blood pressure to stabilize. After blood pressure readings were taken, an adaptation period followed until skin resistance readings stabilized for a 30-second period. A tape player was then activated to present the imaginal scenes. For each scene, the subject was instructed to close his eyes and imagine the scene. A 30-second period of continued imagination followed each scene presentation. The subject was instructed to continue imagining the scene "as if it were actually happening". Following each imaginal scene presentation, the experimenter re-entered the room to obtain blood pressure and self-report measures.

The cognitive self-control treatment procedure involved the use of self-statements for the regulation of anger arousal and cognitive restructuring of provocation experiences. Treatment involved the examination and generation of self-statements made in provocation situations. During the first session, subjects were told that there is a

relationship between anger arousal and one's attitudes, thoughts, and internal sentences. Wanting to be in control of a situation was emphasized as one of the destructive influences in provocation situations. An account of the varied functions of anger was given to the group with emphasis on the disruptive and defensive roles. Subjects were also asked to construct a personal hierarchy of seven provocations that were likely to occur again. With the exception of the first session, all five treatment sessions were individual sessions of approximately 45 minutes. The experimenter conducted all the treatment sessions.

The second session of the cognitive self-control treatment included a review of the hierarchy cards, discussion of homework assignments, and exploration of variables that elicit anger. The subjects were also instructed on how to view a provocation experience as a sequence of stages and were provided with a printed sheet containing anger control propositions. The propositions were presented as a set of ideas that would provide anger control when implemented in a provocation situation. Following a review of points made in the first session, subjects were told that they could control and change cognitive processes and thus bring anger under their control.

Sessions 3-5 included the presentation of a set of self-statements as examples of ways to regulate anger through cognitive controls. The formulation of personal self-instruction was encouraged in the subjects. The anger-eliciting qualities of previous internal dialogues were investigated and challenged and subjects were also encouraged to make better discriminations between situations in which anger is justified and situations where anger is harmful. Subjects were told to adopt the role of an outside observer when in the middle of a provocation. Positive self-statements and acts incompatible with anger arousal were practiced and encouraged.

Analysis of variance and selected contrasts performed across the seven dependent anger measures and the three laboratory provocation modes indicated that the combined cognitive control and relaxation training treatment group had the most consistent significant differences when compared with the control group. The contrasts were significant for the inventory for all measures in the imaginal provocation mode, for six measures in the direct provocation mode, and for four measures in the role-playing provocations mode.

The cognitive control alone treatment group also showed significant differences when compared with the control group. The contrasts were significant for the anger inventory, for three measures in the imaginal provocation mode, for four measures in the direct provocation mode, and for two measures in the role-playing provocation mode. Although less effective than the combined cognitive control and relaxation training treatment in reducing anger, the cognitive treatment alone condition showed significant improvement over the controls: "There were significant differences in favour of the cognitive group for the inventory and for nearly half of the anger measures across provocation modes" (p. 55). Therefore, in the discussion and summary of the experimental results, Novaco states: "The results of the project demonstrate that cognitive control procedures can be effectively used to regulate anger arousal" (p. 47).

Systematic Desensitization. Petrella (1978) evaluated the relative effectiveness of self-control systematic desensitization and self-recording techniques in reducing the destructive effects of anger in criminal offenders with anger control problems.

The experiment consisted of two treatment conditions: self-control systematic desensitization and self-recording. Twenty subjects (10 males, 10 females) were selected from

a volunteer group of criminal offenders after screening to determine the extent and severity of their anger control problems. Subjects were randomly assigned to one of the treatment conditions. The experimenter conducted all the treatment sessions which were given individually over a three-week period. Each of the five treatment sessions lasted approximately 45 minutes.

Treatment conditions were evaluated in a pre-post design by anger inventory, behavioural reports, self-reports, and diary recordings. The behavioural reports were made by staff counsellors who recorded anger situations and mood ratings as part of a daily report. All subjects maintained a daily diary of their anger experiences during the course of treatment. The overall effectiveness of the program was rated by the subjects and staff at termination and at three week follow-up.

The systematic desensitization treatment involved training in deep muscle relaxation. During the treatment sessions, subjects imagined anger provoking situations while practicing the relaxation skills. Seven selected situations were presented in increasing order of their tendency to provoke anger. Subjects were directed to relax away any

tension the scenes caused. Direct application of the relaxation exercises to real-life anger situations was also encouraged. Subjects briefly discussed their daily diary recordings.

The results of the study showed that self-control systematic desensitization is effective in reducing anger management problems. Although the Anger Inventory scores did not reach statistical significance, they showed changes in the desired direction. Behavioural report and diary recording scores indicated modest changes but did not reach statistical significance. Significant decreases in the severity of anger problems from pre- to post-, and pre- to follow-up, were reported by the subjects. Survey results of the program's overall effectiveness were generally positive. The staff reported that 32% of the participants demonstrated "much" or more improvement. As Petrella states: "The modest results suggest promise for behavioural self-control techniques for anger-related problems" (p. 1495-B).

Von Benken (1977) investigated the efficacy of systematic desensitization with relaxation in reducing inappropriate anger and aggression in graduate students with anger and aggression problems.

The experiment consisted of three treatment conditions: systematic desensitization with relaxation, non-specific effects, and a wait-listed control. Thirty graduate students (21 women, 9 men) experiencing problems with anger and aggression, and considered suitable for clinical therapy, were selected from a group of volunteers. Subjects were randomly assigned to one of the three treatment groups of equal size (7 women, 3 men). The 9-week study consisted of three 3-week phases.

Treatment conditions were evaluated by a 20-item hierarchy of arousal stimuli and a standardized checklist of aggressive behaviours. The Buss-Durkee Hostility Guilt Scale, Rotter's Internal Versus External Locus of Control measure, the Bandura Fear Inventory, and the California Psychological Inventory were also used to test several hypothesized parameters of the anger-aggression relationship.

Prior to treatment, subjects engaged in a biographical interview, constructed a 20-item hierarchy of arousal stimuli, and kept a daily record of aggressive behaviours using a standardized checklist. With the exception of subjects in the control group, all participants received relaxation training which they practiced at home.

Systematic desensitization with relaxation treatment consisted of systematic desensitization procedures, daily home relaxation, monitoring in vivo aggressive behaviours, and self-instructing "Relax" at the start of anger arousal. The systematic desensitization training group visualized stimuli during deep muscle relaxation. The group also practiced visualizing neutralized stimuli during home relaxation sessions.

The results of the study showed that systematic desensitization with relaxation training reduced anger arousal (hierarchical stimuli) and the frequency of aggressive behaviours in every day life (checklist). Results also showed that the specific counter-conditioning procedures were superior in terms of the number of sessions to complete the hierarchy, generalization of effects to five unrehearsed stimuli, subjective estimates of decreased anger, and self-perception of hostility. Von Benken (1977) stated:

Systematic desensitization with relaxation was shown to be an efficient efficacious treatment for the reduction of inappropriate anger and aggression and demonstrated a strong, non-significant trend favouring counter-conditioning over the non-specific effects. Treatment effects were well-maintained, increasing at follow-up.

(p. 2389-B)

O'Donnell and Worell (1973) studied three treatment procedures to determine their effectiveness in reducing anger: desensitization with motor relaxation, desensitization with cognitive relaxation, and desensitization with the absence of relaxation training.

The experiment consisted of four treatment conditions: desensitization with motor relaxation, desensitization with cognitive relaxation, desensitization with no relaxation training, and a no-treatment control. Thirty-two subjects were selected from 70 volunteer male psychology students to participate in the experiment. Eight subjects were randomly assigned to each of the four experimental conditions. Criteria for selection included scoring at or above the mean on the Anger subscale of the Emotional Rating Scale and at or below the 60th T-score on the Lie Scale of the Minnesota Multiphasic Personality Inventory (MMPI).

Treatment conditions were evaluated in a pre-post test-control group design by a test battery and by behavioural, verbal, blood pressure, and self-report indices. Post-test therapist ratings of each subject on nine variables on a 5-point scale were also used as indices. Among other things, the test battery included: 1) the Buss-Durkee

Hostility Inventory (factor analytic version - Bendig, 1962) to assess general hostility; and 2) an Emotional Rating Scale, consisting of 5-point Likert-type scales to gather self-reports of anger, anxiety, and disgust to racial stimuli.

The laboratory behavioural assessment involved listening to a tape recording and viewing a series of slides. The tape, which was played through earphones, consisted of selections from a militant speech by Malcolm X. Twenty-four slides showing people and events related to racial issues were presented simultaneously with the audio tape. Each slide, which was projected from an adjoining room through a one-way mirror onto a white screen, was exposed for 15 seconds. Motor behaviours believed to be indicative of anger were rated during the 6-minute slide presentation by an assistant who observed subjects through a one-way mirror from an adjoining room. Each subject was seen individually for the laboratory behaviour assessment. Following the slide and tape presentation, each subject had blood pressure readings taken by an assistant, participated in a tape-recorded interview with the experimenter in order to obtain verbal samples for anger, completed an Adjective Checklist, filled out a 5-point self-rating scale for anger,

and made his first appointment with a randomly assigned therapist. Some exceptions to random assignment were made in order to arrange mutually convenient times. The post-treatment behavioural assessment, which was identical to the pre-treatment assessment, began seven days after the last subject completed treatment.

The desensitization with motor relaxation procedure included tape-recorded relaxation instructions and individual ordering of hierarchy items. The desensitization with cognitive relaxation procedure did not involve motor behaviours of relaxation. Subjects were told to relax and listen to the taped relaxation instructions but not to engage in the specific relaxation exercises either during the treatment sessions or at home. The desensitization with the absence of relaxation training procedure did not include motor or cognitive relaxation training prior to presentation of the hierarchy items. The procedure did include, however, relaxation instructions during the hierarchy presentation. Tape-recorded relaxation instructions were not included in the procedure. Expectations for improvement were identical for all four treatment groups. Each subject received five treatment sessions spaced over an 18-day period. At the end of the last treatment session, each subject completed a 5-point rating scale which dealt

with the depth of relaxation he experienced during the sessions. The treatment sessions began two days after the pre-treatment assessment with a minimum delay of two days between any two sessions.

Fixed effects analyses of covariance with the pre-measure as covariate and the post-measure as the variate was performed on all pre- and post-measure data. Individual comparison F-tests were used to evaluate the differences between treatment group means and the no-treatment control group. Although the difference between treatment groups and the no-treatment group did not reach an acceptable level of significance on the three Emotional Rating Scale measures or the Hostility Inventory, the means were in the expected direction on all measures. Analysis of the behavioural assessment measures showed the means to be in the expected direction for all measures, except for blood pressure, for the desensitization with motor relaxation and no relaxation treatment groups.

Fixed effects analyses of variance were used to analyze the post-treatment ratings made by the therapists and the subjects. The two kinds of ratings were arranged separately in a 2 x 3 factorial design in order to assess the relationship between reduction of emotion and scores on the Emotional

Rating Scale. The three treatment groups made up the three levels of the first factor and the pre-post difference scores on the combined subscales of the Emotional Rating Scale were used to determine the two levels of the second factor. Analysis of the subject's relaxation scores showed significant main effects for improvement and treatment. Analysis of the therapist's relaxation scores showed similar results for improvement and treatment. Analysis of the therapist's ratings on the nine other variables also showed significant treatment effects for reduction of anger.

Post-hoc analysis included fixed effects analysis of covariance on the Hostility data arranged in a 2×3 factorial design with the Emotional Rating Scale change scores being the basis for determining the two levels of the first factor and treatment groups making up the three levels of the second factor. Results indicated significant treatment by improvement interactions for Overt Hostility. Analyses of variance performed on the pre-scores and therapist ratings of the High and Low Groups within the desensitization with motor relaxation condition showed significant effects on the Anger Scale.

Hearn and Evans (1972) examined whether anger aroused by specific stimulus situations could be reduced by reciprocal inhibition therapy.

The experiment consisted of two treatment conditions: reciprocal inhibition therapy and a control condition. Thirty-four female student nurses, 18-23 years of age, were divided into two groups of 17 to form the experimental and control groups. Both groups matched in terms of means and distribution of total aggression scores on the Buss-Durkee Hostility Inventory. None of the subjects was experiencing anger or aggression control problems of a clinical nature.

Treatment conditions were evaluated in a pre-post test design by the Reaction Inventory and by self-report indices. The self-report scales included: Clarity of Image, Tense-Relaxed, Angry-Peaceful, and Calm-Excited. The semantic scales were scored on an arbitrary 1- to 7-point scale. Clarity of Image was scored with no image as one and realistically vivid image as 5. Items in the Reaction Inventory were scored on a 1- to 5-point scale. Totals were computed for each subject on the 15 treatment-related items, and on the 61 items not related to treatment.

The laboratory provocations consisted of 15 anger-evoking scenes composed by the experimenters from the 15 hierarchy items. The scenes were audio-taped and presented to subjects in both groups and rated. After each subject

listened to the anger-evoking scene, she was asked to imagine the scene for approximately 30 seconds before rating the scene on a check list. The next anger-evoking scene was presented after 30 seconds of relaxation.

The reciprocal inhibition treatment involved ten 15-minute presentations of anger-inducing items. The five least rated items were presented in the first three sessions, the five moderately rated items presented in the next three sessions and the five most rated items were presented in the final four sessions. The presentation of the 15 hierarchy items followed five 15-minute relaxation training sessions. The items selected for inclusion in the hierarchy were items most frequently rated in the Reaction Inventory (Evans & Stangeland, 1971) by subjects as stimulating the most anger.

Multivariate analysis of covariance, with clarity of image as the covariate, performed on the eight semantic ratings of scenes showed that the groups x tests interaction effect on all dependent variables taken together was statistically significant. Univariate groups x tests x stimuli analysis of covariance was performed on each of the variables: Peaceful-Angry, Relaxed-Tense, and Excited-Calm. Groups x tests interaction on anger ratings, tension

ratings, and on excitement ratings were all statistically significant. A groups x tests multivariate analysis of variance performed on the data for the 15 treatment-related items and 61 non-treatment-related items on the Reaction Inventory produced a statistically significant groups x tests interaction. Univariate groups x tests analyses of variance performed on the data for the 15 treatment-related items and the data for the 61 non-treatment-related items produced statistically significant groups x tests interaction. In their discussion of the results of the study, Hearn and Evans (1972) stated: "In that anger as measured by the 15 items proved amenable to reciprocal inhibition therapy, this latter may be considered a viable treatment mode with specific anger-producing stimuli" (p. 947).

Rimm, DeGroot, Boord, Heiman, and Dillow (1971) investigated the use of standard desensitization procedures in the reduction of anger arousal evoked by specific automobile driving situations.

The experiment consisted of three treatment conditions: desensitization, placebo, and non-treatment control group. Each subject in the placebo condition was yoked to a desensitization subject on the basis of total session three

participation time. Thirty male psychology students who experienced anger while operating an automobile and who had passed an anger-fear discrimination test were selected for the experiment. Ten subjects were randomly assigned to each one of the three treatment conditions.

Treatment conditions were evaluated in a pre-post, test follow-up design using self-report ratings of subjective anger (SAS), galvanic skin response (GSR), and heart rate indices.

The laboratory provocations began with the presentation of a previously selected neutral scene which was rated by the subjects for vividness or clarity on a 7-point scale. Following the presentation of the neutral scene, the subject was instructed to imagine a series of scenes and to indicate the anger he experienced on a 7-point scale. Nine hierarchy items were presented in alternation with the neutral scene in one of two preselected but random orders. Half the subjects in each treatment received the hierarchy items using one of the random orders and the remaining subjects the other order. Each of the scenes was read by the experimenter and within two seconds after the reading the subject gave his anger rating. Thirty seconds later, the next scene was read to the subject and this was continued until all nine hierarchical scenes had been presented and the neutral scene presented nine times.

The single treatment session consisted of 20 minutes of deep muscle relaxation followed by a desensitization procedure. Starting with the least anger-evoking scene, scenes from a previously constructed hierarchy were presented for 10-second intervals. If no anger was indicated by the subject on the first presentation, the scene was presented again after a 30-second pause. If no anger was again shown the next hierarchy item was presented following a 60-second delay. For both 30- and 60-second intervals the subject was instructed to imagine a pre-selected neutral scene. { If anger was indicated during the first presentation of a given hierarchy item, the subject was immediately shifted to the neutral scene and given relaxation instructions. The anger evoking item was presented again following a 50-second delay. If no anger was signaled, the experimenter presented the next hierarchy item.

Analysis of variance of self-report anger scores (pre-test minus post-test) for the hierarchy items revealed a significant treatment effect. The Scheffé test for individual mean comparisons showed that the desensitization subjects experienced significantly more change than either of the other treatment groups. The other comparisons

produced significant results. Analysis of variance of self-report anger scores at follow-up (pre-test minus follow-up) for the hierarchy items failed to produce significant results. However, combining the placebo and control groups into a single control group did produce significant results at follow-up. Analysis of variance and Scheffé analysis of GSR scores at post-test and follow-up revealed a significant difference between the desensitization and placebo groups. Significant treatment effects were not obtained for the heart rate measure either at post-test or at follow-up. In their discussion of the results, Rimm, DeGroot, Boord, Heiman and Dillow (1971) state that, "The present experiment provides in viro evidence that standard desensitization procedure may be useful in connection with inappropriate or maladaptive anger" (p. 279).

Summary of the Literature Reviewed

The literature reviewed shows that anger arousal is distinct emotional response to specific incentive stimuli. It is closely associated with feelings of anxiety and is often accompanied by hostile thoughts and wishes. Anger arousal is also considered to be a key determinant of aggressive behaviour. The literature reviewed further

indicates that cognitive factors mediate the stimulus-
anger arousal-aggression relationship. Experimental
studies show that anger arousal and aggressive behaviour
are reduced by cognitive self-control and systematic
desensitization training procedures.

Chapter III

Methods and Procedures

Research Design

A pretest-posttest control group design was used for this one-factor experimental study. The experimental factor or treatment variable, training in anger control, was comprised of three types of training: (1) systematic desensitization training, (2) cognitive self-control training, and (3) no training. The four dependent variables in the experiment were: (1) anger arousal, (2) overt hostility, (3) aggression, and (4) constructive action. Six criterion measures were used to assess the effect of the three experimental treatments on the four dependent variables: (1) anger inventory, (2) anger self-report, (3) overt hostility inventory, (4) overt hostility directed outwards scales, (5) aggression self-report, and (6) constructive action self-report.

Experimental Hypotheses

The experiment was designed to investigate eight hypotheses. For statistical purposes the hypotheses relating to the objectives have been framed in the null or no difference modes.

Treatment differences at $p < .05$ will be considered statistically significant. The eight experimental hypotheses are:

1. There is no statistically significant difference in the reduction of anger arousal between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the Reaction Inventory (Evans & Strangeland, 1971) and the Self-Report Scale (Novaco, 1975).
2. There is no statistically significant difference in the reduction of overt hostility between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the Buss-Durkee Hostility Inventory (factor analytic version - Bendig, 1962) and the Hostility Directed Outward Scale (Gottschalk, Gleser, & Springer, 1963).
3. There is no statistically significant difference in the reduction of aggression between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the Self-Report Scale (Novaco, 1975).

4. There is no statistically significant difference in the increase in constructive action between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the Self-Report Scale (Novaco, 1975).
5. There is no statistically significant difference in the reduction of anger arousal between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the Reaction Inventory (Evans & Strangeland, 1971) and the Self-Report Scale (Novaco, 1975).
6. There is no statistically significant difference in the reduction of overt hostility between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the Buss-Durkee Hostility Inventory (factor analytic version - Bending, 1962) and the Hostility Directed Outward Scale (Gottschalk, Gleser, & Springer, 1963).
7. There is no statistically significant difference in the reduction of aggression between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the Self-Report Scale (Novaco, 1975).

8. There is no statistically significant difference in the increase in constructive action between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the Self-Report Scale (Novaco, 1975).

Sample

Subjects were 30 graduate social work students from the Faculty of Social Work, Wilfrid Laurier University, Waterloo, Ontario, and the School of Social Work, Carleton University, Ottawa, Ontario. Twenty subjects were from Wilfrid Laurier University and ten subjects were from Carleton University. All subjects, who were in the first year of a M.S.W. degree program during the 1980-81 school year, agreed to participate in the study following a class presentation on the purpose and method of the study and an appeal for volunteers by the researcher. There were 24 females and six males in the study, ages ranging from 21 years, 11 months to 49 years, 6 months with a mean age of 31 years, 1 month. Subjects were selected on the basis of their anger scores on the Child Abuse Anger Report. All subjects indicated that they sometimes became at least mildly angry toward parents or caretakers who physically abuse children.

The mean anger score for the subjects on each of the child abuse cases was 4.7 with scores ranging from 2.0 to 7.0, out of a possible score of 7.

Instruments

1. The Child Abuse Anger Report (CAAR) (Appendix II, page 143) was used to assess subjects' anger feelings toward parents or caretakers who physically abuse children. The experimenter-designed questionnaire, which utilized three case studies representing the spectrum of physical abuse (Birrell & Birrell, 1966) and a 7-point Likert-type scale covering the range of anger feelings, was used to determine subjects' admission to the experiment. The Child Abuse Anger Report, an instrument for assessing volunteers' general disposition for anger in child abuse work, provided a rough criterion for admission of subjects to the experiment.

2. The Anger Self-Report (ASR) (Zelin, Adler, & Myerson, 1972) (Appendix II, page 146), which differentiates between the awareness of angry feelings and the expression of anger in behaviour, was used to measure the awareness of angry feelings in the experimental subjects. The ASR, a Likert-type questionnaire with eight scales, can differentiate people high on awareness of anger and low on expression of

anger from people who are high on both. The instrument provided awareness of anger scores which were intended for use in a post-hoc analysis of the anger inventory and anger self-report data.

3. The Reaction Inventory (RI) (Evans & Strangeland, 1971) (Appendix II, page 151), a 76-item questionnaire designed to provide an overall "degree of anger" score for individuals, measures anger produced by numerous specific stimulus situations. For example, one of the inventory items is, "People being cruel to children." Subjects write the number of each item in one of the five columns of the answer sheet. The columns are arbitrarily assigned the values 1 to 5, with Not at all = 1 and Very much = 5 (Appendix II, 155), that correctly describes how much they get angered by the thing or experience identified by the item. The sum of the 76 values gives the "degree of anger" score for the individual. The RI was included in the study to determine if there was a general reduction of anger in the subjects as a result of training.

4. The Buss-Durkee Hostility Inventory (BDHI) (factor analytic version - Bendig, 1962) (Appendix II, page 159), a 34-item inventory that measures both covert and overt hostility, was used to provide a general measure of overt

hostility; pretest and posttest. The 14-item Overt Hostility subscale of the inventory consists mainly of Assault and Verbal Hostility items. Item content of the Overt Hostility subscale represents a violent, physical, assaultive expression of hostile feelings. The instrument takes into account the effects of response set by including both true and false items in the inventory. It was included in the study to see whether reduction of overt hostility might be reflected in more general measures.

5. The Self-Report Scales for Laboratory Provocations (SRS) (Novaco, 1975) (Appendix II, page 161) were used to measure anger arousal, aggression, and constructive action in subjects during the six pretest and six posttest laboratory provocations. The anger arousal, aggression, and constructive action scales have 1, 4, and 2 items respectively. A 7-point Likert-type scale covering the values 1 to 7, with Not at all = 1 and Very much = 7, is used with each of the seven items. The one item for the anger self-report scale is, "1. Rate the degree to which this parent made you feel angry." The aggression self-report scale has four items: "2a. I would curse or shout."; "b. I would want to hit the person"; "d. I would want to pound or kick something"; "e. I would want to tell the person off and start an argument". Two items

are used in the constructive action self-report scale:

"c. I would stay composed and be constructive"; "f. I would try to understand the situation and keep cool about it."

(It will be noted that the items are arranged to control for response set). The self-report scales were used to measure changes in the level of anger arousal, aggression, and constructive action from one laboratory provocation to another and from pretest to posttest.

6. The Hostility Directed Outwards Scale (HDOS) (Gottschalk, Gleser, & Springer, 1963) (Appendix II, page 162) was used to measure the amount of transient overt hostility evoked during the pretest and posttest laboratory periods. The instrument provides a reliable means of making quantitative inferences about the level of hostile affect present in language. The HDOS (and thematic categories), which was applied to 5-minute samples of verbal behaviour elicited during the pretest and posttest laboratory periods, measures changes in hostile affect by identifying and weighting thematic categories present in language. One of the thematic categories is, for example: "self using hostile words, cursing, mention of anger or rage without referent."

Pre-Treatment Procedures: Testing

Immediately following three class presentations by the researcher on the purpose and method of the study and an appeal for volunteers, the Consent for Training forms (Appendix I, page 141) and the Child Abuse Anger Report forms (Appendix II, page 143) were distributed to the students for completion. One class presentation was carried out at Wilfrid Laurier University on September 10, 1980, and two class presentations were carried out at Carleton University on February 2, 1981.

The first testing session following the initial class presentations involved the administration of the Anger Self-Report form, the Reaction Inventory form, and the Hostility Inventory form. The testing sessions were carried out by the researcher at Wilfrid Laurier University 22 days after the initial class presentation and at Carleton University 14 days after the initial presentations. The average number of days between the initial class presentation and the first testing session was 18 days.

Laboratory Procedures: Pre-Treatment Behavioural Assessment

The laboratory procedures, which included an automatically synchronized slide-tape program, were conducted for the most part in a language laboratory. The automatically synchronized slide-tape presentations were done using a slide sound-synchronized projector and a white screen located at the front of the language laboratory. Use of a slide sound-synchronized projector produced the smoothest, most consistent show possible from presentation to presentation. Tone, volume, and lens controls on the slide projector were kept turned to the same level during all the showings. Earphones and recording equipment in each language laboratory were checked to see that they were working properly before proceeding with any of the presentations. Use of the language laboratory for conducting the pre-treatment and post-treatment behavioural assessments facilitated group collection of verbal samples and helped control for the effect of extraneous stimuli, such as noise, on general arousal levels. Lights in the language laboratory were turned off during the slide-tape presentations and room temperature was kept at normal classroom levels.

Three pre-treatment behavioural assessment sessions were held at Wilfrid Laurier University six, seven, and thirteen days after the first testing session. The average number of days between the first testing session and the laboratory sessions was 8.7 days. The final two laboratory sessions were necessary in order to accommodate individual subjects and their timetables. Three pre-treatment behavioural assessment sessions were held at Carleton University three, ten, and sixteen days after the first testing session. The average number of days between the first testing session and the laboratory sessions was 9.7 days. The first pre-treatment behavioural assessment session was held in the language laboratory. The final two sessions were conducted in a regular classroom in order to accommodate individual subjects and their timetable and because of the language laboratory not being available. Verbal samples were obtained using a cassette tape recorder.

Subjects were directed to the language laboratory by means of a map indicating the location of the facility and a printed notice stating the date and time of the session. All written communications to the subjects regarding experimental sessions were deposited in the students' campus

mailboxes prior to each session. Upon arrival at the language laboratory, subjects were given a printed handout with specific instructions to direct them (Appendix III, page 164). When possible, random assignment of subjects to stations was followed. The slide-tape program was started as soon as all the subjects were seated quietly at their stations.

The 70.5 minute slide-tape program consisted of 58 coloured slides with taped narration (Appendix III, page 165). Six of the slides were medical slides showing abusive injuries to children. The other 52 slides showed the words that were spoken in the taped narration. A speech pathologist and audiologist, unfamiliar with the research project, did the narration for the slide-tape program from a prepared script. Her instructions were to make a "bland" voice track with no affect. Use of both slides and sound for the laboratory presentations facilitated the accurate communication of information and instructions from the researcher to the subjects. Simultaneous presentation of slides and taped narration using a slide sound-synchronized projector helped standardize the laboratory procedures from session to session.

The slide-tape program, which provided subjects with a series of six imaginal counselling interviews, was designed to facilitate the assessment of therapists' behaviour during initial interviews with abusive parents. The six imaginal counselling interviews included three interviews with abusive parents and three interviews with non-abusive parents. The three non-abusive parent interviews were included to see if subjects were discriminating abusive parents from non-abusive parents in their responses. To determine whether this discrimination was consistent, the type of interview presented to the subjects changed from non-abusive to abusive to non-abusive in alternate fashion over the six interviews. In order to enable the subjects to adapt to the imaginal interview situation and the assessment procedures, the presentations began with an imaginal interview with a non-abusive parent.

Following a 15-second announcement that the audio-visual presentation was about to begin, the six imaginal interviews were presented. Each imaginal interview was introduced with the words, "Please imagine yourself interviewing the following person in an initial therapy session." The words, which were shown on the screen for 15 seconds, were prerecorded on tape and played simultaneously with the

showing of the slide. Clinical details describing a child's injuries were then presented audio-visually using the slide-tape method. The exposure time for the clinical details slide was 30 seconds. In cases involving a non-abusive parent, the clinical details were introduced with the words, "The person being interviewed is a parent of this..." A statement claiming the injuries to be the result of an accident or other such cause concluded the clinical picture. In cases involving an abusive parent, the clinical details were introduced with the words, "The person being interviewed is the parent who inflicted..." The clinical picture was concluded with a statement describing how the abusive injuries were inflicted. Following the presentation of clinical details, the medical slides showing the injuries were projected on the screen for 30 seconds. The viewing of medical slides was followed by a 30-second period of continued imagination with the words, "Now go right on imagining yourself interviewing the person as if it were actually happening," introducing the sequence. Imaginal interviews were followed immediately with an assessment of subjects' reactions. Using the slide-tape method, subjects were instructed to, "Please complete and sign one of the anger self-report forms

and return it to the envelope marked Number..." The Anger Self-Report forms and numbered envelopes were distributed to the language laboratory stations prior to the arrival of the subjects. Subjects were given 90 seconds to complete, sign, and return the self-report forms to the marked envelopes. Completed forms and envelopes were then collected by the researcher after the subjects were informed audio-visually that, "The results will now be collected. Please give the completed form and envelope to the monitor when asked." The collection of results was given two minutes to be completed. Total time allotted for the six imaginal interviews and the collection of results was 31 minutes and 30 seconds.

The second half of the slide-tape program was introduced with the words, "The final section of this audio-visual presentation will follow a two-minute waiting period. Please remain seated." Following the two-minute break, during which time the words remained on the screen, an imaginal interview with an abusive mother was presented. The imaginal interview was introduced audio-visually with the statement, "The following words are from an initial therapy session with an abusive mother. Please imagine yourself interviewing her." Thirty seconds later, during which time the introductory statement remained on the screen, the imaginal interview with

the abusive mother began. The voice track for the imaginal interview was done by a mother of two children reading from a prepared script. The script was taken from the chapter, "A Mother's Story", in the book Children in Danger (Renvoize, 1974). Using the script, the mother role-played an abusing mother in a therapy session telling her story of what happened to her abused child. The abusing mother's story, which was presented audio-visually using the slide-tape method, lasted three minutes. A 30-second period of continued imagination followed the mother's story with subjects being told, "Now go right on imagining yourself interviewing the abusive mother as if it were actually happening." The imaginal interview was followed immediately with an assessment of subjects' reactions using a 5-minute speech sample. Using audio-visual means, subjects were instructed to, "Please switch the recording control to 'on'." The instructions slide was projected on the screen for 30 seconds. A white file card, with the words "off" and "on" printed on it in red and green colours, respectively, and with properly placed coloured arrows, was used to indicate the location of the recording control switches. The marked cards were distributed to the laboratory stations prior to the arrival of

the subjects. Blank cassette tapes were inserted in the recording instruments prior to the laboratory session. After the recording controls were turned on, subjects were then told, "You can be sure that no one in this language laboratory can hear what you say when the earphones are in place." After a 30-second pause, subjects were instructed to, "Please put on your earphones and talk into the microphone about any topics or feelings that you care to talk about." Following a brief 15-second pause, subjects were prompted audio-visually with the words, "To help you get started, please begin by saying: 'After seeing the slides and hearing the abusive mother's story, the things running through my mind are...' Now please continue. You have five minutes." After the five minute speech sample was taken, subjects were instructed to, "Please switch the recording control to 'Off' and remove your earphones." Following a 30-second pause to allow subjects to remove earphones, participants were given three minutes to remove the cassette tapes and write their names and date on them. Subjects were instructed at this point to, "Please remove the cassette tape and write your name and the date on it." Blank labels had been attached to the cassette tapes for identification

purposes prior to the laboratory session. After completion of the labelling task, subjects were requested to, "Please give your cassette tape to the monitor when asked." Three minutes were allowed for the collection of the cassette tapes by the researcher. The final message of the slide-tape program, "Thank you for your participation. You are now free to leave," completed the laboratory procedures session.

The six imaginal interviews involved the presentation of six medical slides showing abusive injuries to children. The coloured slides, which have been used by Robert W. ten Bensel (1971) to help medical and health professionals identify the battered child syndrome, focus on the physical aspects associated with physically abused children. Two of the slides show abrasions, two of the slides show burns, and two of the slides show a child with a fatal skull fracture and a child in a comatose condition with, presumably, a skull fracture. One slide each was randomly selected from the two abrasion slides, the two burn slides, and the two fracture slides to provide two matched sets of slides, with three slides each, that covered the spectrum of physical abuse from mild to severe injuries. One set of slides was then randomly assigned to the abusive parent interview group and the other set was assigned to the non-abusive parent interview group. To control for order of presentation, the slides

in each set were randomly assigned to the first, second, and third positions in the order of presentation.

Each of the medical slides was presented with a few clinical details describing the nature and severity of the physical injuries. The three cases assigned to the non-abusive parent interview group each included a statement identifying the child as an accident victim or, as in one case, a victim of an attack by some teenagers. The three cases assigned to the abusive parent interview group each included a statement identifying the parent as the person who inflicted the injuries on the child. Unknown to the subjects was the fact that all of the injuries shown in the slides were inflicted by parents. Clinical details describing the age and sex of the child and the nature and severity of the inflicted injuries were given to the subjects exactly as reported in the literature with the exception of the two fracture cases. The children in the two fracture cases were both described as having died from their injuries when in fact only one was reported in the literature to have died. This was done in order that both abusive and non-abusive parent interview groups would have an example of severe child battering resulting in death. Because the two fracture cases

did not include the age of the child in the literature, the boy shown in one of the slides was assigned the age of nine years while the child shown in the other slide was given the age of six years and described as a girl. The two fracture case slides, with their respective clinical details, were then switched around from their previous randomly assigned interview groups. Changes in the descriptive statements identifying the fracture cases as an accident or abuse case were also made. Thus, the accident case became an abuse case and vice versa. This was done to match the two interview groups as much as possible on the age and sex of the injured children. As well as the abusive parent and non-abusive parent interview groups each having three cases covering the spectrum of physical abuse from mild to severe injury, each interview group had a case involving a six year old girl and a nine year old boy. The interview groups were also matched in terms of the total number of cases involving boys and girls: two girls and one boy in each group. Racial origin of the children was also controlled for because both interview groups had a case involving a black child and two cases involving white children.

Technical Information

The automatically synchronized slide-tape presentations were done using a Singer Caramate 3300, Model 3320, slide sound-synchronized projector equipped with a 77 mm F 3.5 lens. The inaudible cue signals for the automatic slide advance and voice track were fed into the projector on a TDK D-C 180 cassette tape: 180 minutes @ 1-7/8 ips (2 x 90 min.). A Reprovit copying device equipped with a Leica 35 mm camera was used to make the 35 mm slides from typewritten copy of the laboratory narration. In order to produce slides that were legible on the screen for subjects with average eyesight sitting in the rear seats of the language laboratory (8H viewing standard), typewritten copy was restricted to an information area of 70 mm x 105 mm (height/width ratio of 2:3). The typewritten copy of the laboratory narration, which was made with capital letters in pica type (letter height approximately 1/8 inch or 3 mm) using an Underwood 450 standard typewriter, did not exceed the recommended limits of nine double-spaced lines and 45 typing spaces per line of copy. Using the specifications described, the typewritten copy produced 35 mm slides that projected a letterheight of two inches when the total projected screen image was five feet.

This degree of projection provided proper legibility for viewers as far away as 64 feet which is more than the farthest viewing distance that was required of any of the subjects.

The Wilfrid Laurier University language laboratory was equipped with a Sony system which included Sony Educational Recorders ER-A30, Sony Headsets HS-85, a Sony Language Laboratory Control Console LLC-11, and a Sony Remote Control Telecommande RM-1040. Carleton University had a language laboratory equipped with an Aveley/Cybervok recording and control system. All 5-minute speech samples were recorded on Maxell 60 cassette tapes: 60 minutes @ 4.76 cm/sec. (2 x 30 min.).

Treatments

The treatment sessions conducted at Wilfrid Laurier University were held 13 and 15 days after the final pre-treatment laboratory session was held. The treatment sessions conducted at Carleton University were held seven and eight days after the final pre-treatment laboratory session was held. The average number of days between the last pre-treatment laboratory session and the first and second treatment sessions was 10 and 11.5 days respectively.

Both Wilfrid Laurier University and Carleton University had one systematic desensitization treatment session and one cognitive self-control treatment session conducted on each of the two treatment session days. The two treatment groups were trained at the same time in two separate classrooms. Prior to the start of the treatment sessions, trainers were recruited and randomly assigned to classrooms. Classrooms were randomly assigned to treatment groups. The paid trainers, two from the University of Waterloo and two from Carleton University, were doctoral students in clinical or general psychology. All the trainers had completed doctoral course work and were writing their dissertations. One trainer was male and three trainers were female.

Systematic Desensitization: Session One

Just before the first 60-minute session began, the trainers were given a written set of instructions outlining the procedures to follow (Appendix IV, page 172). After introducing themselves to the treatment groups, trainers distributed the Anger Hierarchy forms (Appendix IV, page 173) and Child Abuse Case Summaries (Appendix IV, page 174).

Each subject was given a complete set of 25 case summaries and one hierarchy form for the hierarchy construction. The 25 case summaries, which were printed on 8½ x 3 inch white paper, consisted of short statements describing various kinds and degrees of physical abuse. Thirteen of the case summaries were based on R.W. ten Bensel's (1971) clinical cases and 11 of the summaries were based on M.C. McNeese's (1980) clinical cases. Subjects were instructed to read the 25 case summaries and select the ten child abuse cases that aroused the most anger in them. Next, they were asked to divide their anger on a scale of zero to one hundred and assign a case to every tenth value with 100 representing the most anger-provoking case. Using the Anger Hierarchy forms provided, subjects indicated their ranking of the ten cases by writing the case numbers beside the appropriate anger values. The completed anger hierarchy forms and child abuse case summaries were then collected by the trainers.

The first systematic desensitization training session concluded with an introduction to deep muscle relaxation. Using taped relaxation instructions and a Sony cassette recorder, subjects were led through a 25-minute series of relaxation steps by the trainers. The relaxation training

instructions (Appendix IV, page 183) were taken for the most part from the relaxation steps presented by Morris (1975) in Table 8.3: An Introduction to the Relaxation Training Steps of Systematic Desensitization. A female guidance counselor with a master's degree in counselling made the training tape. Subjects were thanked and dismissed at the conclusion of the relaxation exercises.

Systematic Desensitization: Session Two

Just before the second 60-minute training session began, the trainers were given a written set of instructions outlining the procedures to follow (Appendix IV, page 188). The second session began with 25 minutes of deep muscle relaxation using the taped relaxation instructions presented in session one.

Following the relaxation exercise, the trainers proceeded with the systematic desensitization procedures using the Desensitization Instructions (Appendix IV, page 189) as a guide. With the exception of four cases, the ten case summaries used for the desensitization procedure were those most frequently selected for rank ordering on the anger hierarchy forms. Four cases were randomly selected from the case summaries that were unselected or least selected for

inclusion on the anger hierarchy forms. The four randomly selected case summaries were presented first in random order. Starting with the case summary ranked lowest on the hierarchy forms, the next six case summaries were presented. The trainers read the case summaries to the subjects and the slides were shown using a Singer Caramate 3300 projector equipped with a built-in-screen.

The first case summary was presented for 30 seconds. If no anger was indicated, in the first presentation of the first case summary, the case was presented again for 30 seconds following a 30-second pause. If no anger was indicated again, the second case summary was presented following a 60-second pause. For both 30- and 60-second intervals, the subjects were instructed to imagine a neutral scene. If anger was indicated in the first presentation of a case summary, the subjects were instructed to imagine a neutral scene and given relaxation instructions. Sixty seconds later, the case summary was presented again. If anger was again signaled, additional relaxation instructions were given. If no anger was signaled, the next case summary was presented after a 60-second pause. The systematic desensitization procedures continued until all ten case summaries had been presented. After completion of the training procedures, subjects were thanked for their participation and dismissed.

Cognitive Self-Control: Session One

Just before the first 60-minute session began, the trainers were given a written set of instructions outlining the procedures to follow (Appendix V, page 192). After introducing themselves to the treatment groups, trainers made some general statements about controlling anger using cognitive self-control procedures. Subjects were told that anger responses can be controlled using positive self-statements and by cognitive restructuring of provocation experiences. Subjects were also told that the purpose of the training sessions was to learn how to control anger using cognitive self-control methods.

The trainers then discussed with the subjects the extent of their anger feelings toward child abusers and the particular aspects of child abuse that trigger their anger. The thoughts and self-statements made by subjects during the laboratory provocations were also discussed.

Following the group discussion, subjects were given the rationale for cognitive self-control training. Using a taped lecture called Rationale for Training (Appendix V, page 193), the material for which was taken from Ellis and Harper (1972), subjects were told that human feeling is a

product of human thinking. They were told that perceiving, moving, thinking, and emoting are interrelated and occur simultaneously. Subjects were also presented with the idea that sustained emotion usually stems from sustained thought which takes the form of internalized phrases and sentences. The self-propagandizing sentences, subjects were told, intensify and sustain negative emotions such as feelings of anger. Therefore, angry feelings can be controlled or changed by changing the kind of internal sentences that lie behind the feelings.

An account of the varied functions of anger and its regulation was presented next. Using a taped lecture called "The Functions and Regulation of the Arousal of Anger" (Appendix V, page 196), the material for which was taken from Novaco (1976), subjects were told that anger serves important functions in helping people cope with stress. The functions identified and discussed in the taped lecture included energizing behaviour, expressive or communicative, self-promotional, potentiating, instigative, and discriminative functions. The arousal of anger as a defensive function whereby anger occurs as a protective reaction to feelings of vulnerability was also identified and discussed. Subjects

were reminded that effectiveness in dealing with stress situations demands patience, composure, and constructive thought. Competence in anger management also demands patience, composure, and constructive thought. The ability to manage anger, arousal and to adapt to stress events was emphasized as a necessary psychological skill, especially for mental health professionals.

Following the taped lectures, the trainers directed the subjects to tune in to their self-statements during any anger episodes that might occur in the next 24 hours. Subjects were also asked to record their anger-related self-statements for the same period. The group was then thanked for their participation and dismissed.

Cognitive Self-Control: Session Two

Just before the second 60-minute session began, the trainers were given a written set of instructions outlining the procedures to follow (Appendix V, page 199). Trainers started the session with a discussion of the homework assignment given in session one. Subjects discussed whether or not their anger feelings and self-statements occurred together during anger episodes.

An account of the elicitors of anger was presented next. Reading from a paper entitled "Elicitors of Anger" (Appendix V, page 200), trainers told the subjects that anger arousal is an emotional response that occurs under certain incentive or stimulus conditions. The material for this paper was based on articles by Janis et al. (1969), Pamkratz et al. (1976), and Evans and Stangeland (1971). Threats to dearly held values was identified as one of the prime instigators of anger. Several major categories of anger eliciting stimuli were also identified. Subjects were then presented with the idea that people have little difficulty identifying the antecedents of their own anger arousal. The brief presentation concluded with the message that there are numerous specific stimulus situations which produce anger.

The next presentation provided an account of the pattern of anger. Reading from a paper called "The Pattern of Anger" (Appendix V, page 201), the material for which was taken from Danesh (1977) and Novaco (1975), subjects were told that the pattern of anger consists of two phases: an emotional phase and a solution phase. The emotional

phase has three stages: alert, anxiety, and desire to attack. An objective-creative solution and a pathological solution are the two possible responses in the solution phase. Subjects were also informed that the objective-creative solution consists of a realistic evaluation of a threat and a unique response to it. One objective-creative solution for dealing with anger is to view a provocation experience as a sequence of stages. One of the stages involves coping with arousal and agitation. By contrast, the pathological solution manifests itself in the form of aggressive behaviour. Subjects were told that aggressive behaviour is a negative way of implementing the angry feelings that can occur when a person's integrity is threatened. The idea that aggression is a learned behaviour distinct from a person's integrity concluded the brief presentation.

The trainers then distributed a printed list of Anger Management Principles (Appendix V, page 202). One principle identified on the list is that anger can be controlled by staying task-oriented and issue-focused. Recognizing the signs of arousal as soon as they occur, engaging in self-instruction, and breaking a provocation experience into four stages, are three other anger management principles included

in the list. Subjects were also given the idea that there are different forms of self-instruction that correspond to the four provocation stages. The trainers next distributed a printed sheet with examples of self-statements that could be used for the four provocation stages (Appendix V, page 203). The four provocation stages identified include preparing for a provocation, confronting the provocation, coping with arousal and agitation, and self-reward.

The two handouts were discussed briefly before the trainers directed the subjects to try to make their own set of self-instructions for future use in provocation instances. Subjects were also directed to make sharper discriminations in the future between situations in which anger is justified and situations where anger is harmful. The group was then thanked for their participation and dismissed.

Laboratory Procedures: Post Treatment Behavioural Assessment and Testing

The post-treatment behavioural assessment sessions were conducted in a language laboratory using the same automatically synchronized slide-tape program used in the pre-treatment assessment sessions. Earphones and recording equipment in each language laboratory were checked to see that they were

working properly before proceeding with any of the presentations. Lights in the language laboratory were turned off during the slide-tape presentations and temperature was kept at normal classroom levels.

Immediately following the audio-visual presentations, the Reaction Inventory and the Hostility Inventory were distributed to the subjects for completion. The post-treatment behavioural assessment and testing sessions were carried out by the researcher at Wilfrid Laurier University six days after the final treatment session and at Carleton University seven days after the final treatment session. The average number of days between the final treatment session and the post-treatment behavioural assessment and testing sessions was 6.5 days. The total number of days required for completing the study, from initial class presentation to final post-treatment behavioural assessment and testing session, was 56 days at Wilfrid Laurier University and 45 days at Carleton University. The average number of days required to complete the study was 50.5.

Chapter IV

Results

The purpose of this study was to evaluate experimentally the effectiveness of two different training procedures in reducing anger arousal, overt hostility, and aggression; and their effectiveness in increasing constructive action in child abuse therapists. The experiment, which was designed to assess the effect of three treatments on six dependent measures, produced a set of data which was examined for statistical significance using univariate analysis of covariance tests. The homogeneity of regression slopes was checked to assure that analysis of covariance was appropriate. Analysis of covariance with pretest scores as the covariate was used to control for initial mean differences between the experimental groups on the pretest scores. The Statistical Package for the Social Sciences (SPSS), Second Edition, McGraw-Hill Book Co., New York, 1975, by Norman H. Nie et al., was used to perform the analysis. The presentation of the univariate test results follows the order of presentation of the hypotheses as they are related to the four main dependent variables: anger arousal, overt hostility, aggression, and constructive action.

Changes in Anger

Table 4.1 reports the results of the analysis of covariance on the Anger Inventory Scores. The first null hypothesis (Hypothesis 1), which stated that there is no statistically significant difference in the reduction of anger arousal between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the Anger Inventory; and the fifth null hypothesis (Hypothesis 5), which stated that there is no statistically significant difference in the reduction of anger arousal between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the Anger Inventory, were supported ($p < .05$).

Table 4.2 reports the results of the analysis of covariance on the Self-Report Ratings of Anger scores. The first null hypothesis (Hypothesis 1), which stated that there is no statistically significant difference in the reduction of anger arousal between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by self-report ratings of anger; and the fifth null hypothesis (Hypothesis 5), which stated that there is no statistically significant difference in the reduction of anger arousal between therapists who have taken cognitive self-control training and therapists who have taken no training

Table 4.1
Analysis of Covariance on the Anger
Inventory Scores

Source	Mean Square	df	F	p
Anger	1499.160	2	1.016	.183
Error	825.712	26		

Table 4.2
Analysis of Covariance on the Self-Report
Ratings of Anger Scores

Source	Mean Square	df	F	p
Anger	35.057	2	2.002	.155
Error	17.508	26		

as measured by self-report ratings of anger, were supported ($p < .05$).

Table 4.3 reports the treatment group means for the Anger Inventory scores. The systematic desensitization and cognitive self-control training group means show a reduction in anger from pre-treatment to post-treatment. The no-training control group means show an increase in the anger from pre-treatment to post-treatment.

Table 4.4 reports the treatment group means for Self-Report Ratings of Anger scores. The systematic desensitization, cognitive self-control, and no training control group means show a reduction in anger from pre-treatment to post-treatment.

Figure 4.1 shows the pre-treatment and post-treatment means for self-report ratings of anger across imaginal interviews. The odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents. The even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. Self-report ratings of anger are highest for the imaginal interviews with abusive parents and lowest for the imaginal interviews with non-abusive parents. The pre-treatment means for the abusive and non-abusive parent interviews are 5.2 and 2.5 respectively. The post-treatment means for the abusive and non-abusive parent interviews are 4.6 and 2.1 respectively.

Table 4.3

Treatment Group Means for Anger Inventory
Scores

Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	199	185
Cognitive Self-Control	204	181
No Treatment Control	203	204

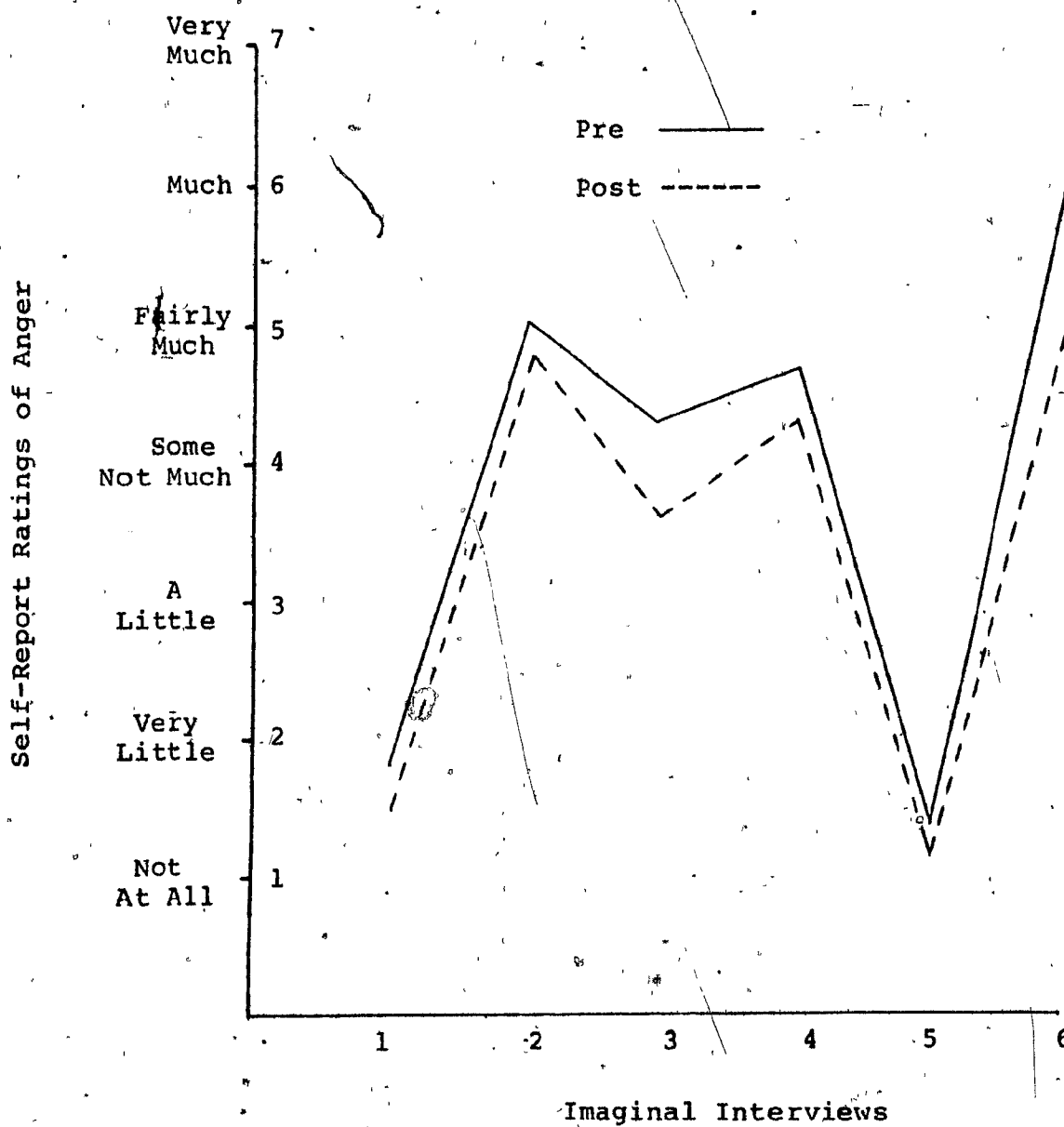
Table 4.4

Treatment Group Means for Self-Report
Ratings of Anger Scores

Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	15.9	15.0
Cognitive Self-Control	16.0	11.9
No Treatment Control	15.2	14.7

Figure 4.1

Means for Self-Report Ratings of Anger
Across Imaginal Interviews



Changes in Hostility

Table 4.5 reports the results of the analysis of covariance on the Hostility Inventory scores. The second null hypothesis (Hypothesis 2), which stated that there is no statistically significant difference in the reduction of overt hostility between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the hostility inventory; and the sixth null hypothesis (Hypothesis 6), which stated that there is no statistically significant difference in the reduction of overt hostility between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the hostility inventory, were supported ($p < .05$).

Table 4.6 reports the results of the analysis of covariance on the Hostility Directed Outward scores. The second null hypothesis (Hypothesis 2), which stated that there is no statistically significant difference in the reduction of overt hostility between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by the hostility directed outward scale, and the sixth null hypothesis (Hypothesis 6), which stated that there is no statistically significant difference in the

Table 4.5

Analysis of Covariance on the Hostility
Inventory Scores (Overt)

Source	Mean Square	df	F	p
Anger	5.265	2	2.663	.089
Error	1.978	26		

Table 4.6

Analysis of Covariance on the Hostility
Directed Outward Scores (Overt)

Source	Mean Square	df	F	p
Anger	.415	2	1.908	.179
Error	.217	17		

reduction of overt hostility between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by the hostility directed outward scale, were supported ($p < .05$).

Table 4.7 reports the treatment group means for Hostility Inventory scores. The systematic desensitization training group means show a reduction in overt hostility from pre-treatment to post-treatment. The cognitive self-control training group means show no change in overt hostility from pre-treatment to post-treatment. The no-training control group means show an increase in overt hostility from pre-treatment to post-treatment.

Table 4.8 reports the treatment group means for Hostility Directed Outward scores. The systematic desensitization and cognitive self-control training group means show a reduction in overt hostility from pre-treatment to post-treatment. The no-training control group means show an increase in overt hostility from pre-treatment to post-treatment.

Changes in Aggression

Table 4.9 reports the results of the analysis of covariance on the Self-Report Ratings of Aggression scores. The third null hypothesis (Hypothesis 3), which stated that there is no statistically significant difference in the reduction

Table 4.7

Treatment Group Means for Hostility
Inventory Scores (Overt)

Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	7.1	7.0
Cognitive Self-Control	5.2	5.2
No Treatment Control	6.0	7.2

Table 4.8

Treatment Group Means for Hostility
Directed Outward Scores (Overt)

Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	1.40	1.08
Cognitive Self-Control	1.37	1.30
No Treatment Control	1.25	1.44

Table 4.9

Analysis of Covariance on the Self-Report
Ratings of Aggression Scores

Source	Mean Square	df	F	p
Anger	191.059	2	1.991	.157
Error	95.967	26		

Table 4.10

Treatment Group Means for Self-Report
Ratings of Aggression Scores

Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	29.4	27.8
Cognitive Self-Control	29.9	20.3
No Treatment Control	29.8	28.2

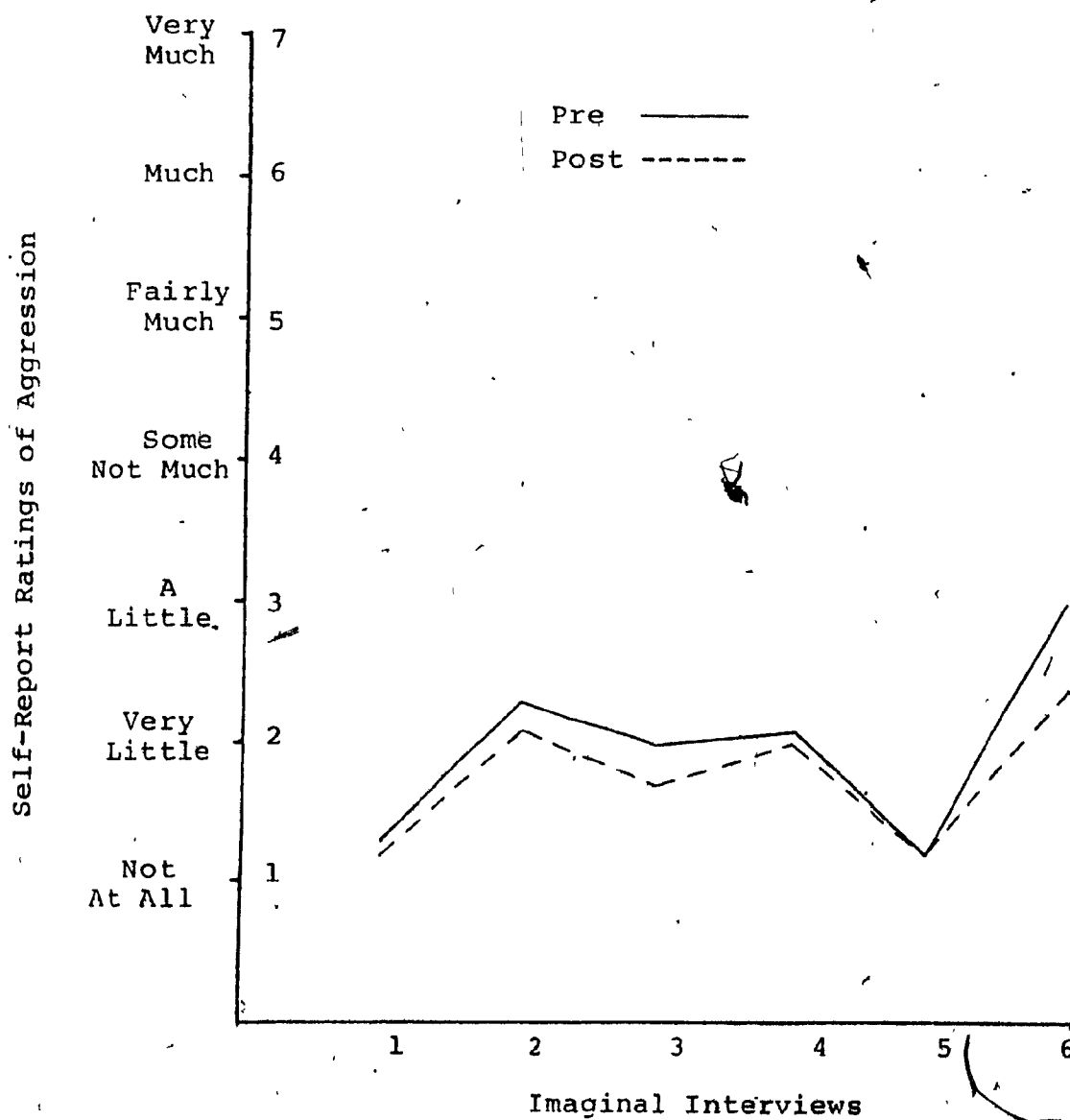
of aggression between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by self-report ratings of aggression, and the seventh null hypothesis (Hypothesis 7), which stated that there is no statistically significant difference in the reduction of aggression between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by self-report ratings of aggression were supported ($p < .05$).

Table 4.10 reports the treatment group means for Self-Report Ratings of Aggression scores. The systematic desensitization, cognitive self-control, and no-training control group means show a reduction in aggression from pre-treatment to post-treatment.

Figure 4.2 shows the pre-treatment and post-treatment means for self-report ratings of aggression across imaginal interviews. The odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents. The even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. Self-report ratings of aggression are highest for the imaginal interviews with abusive parents and lowest for the imaginal interviews with non-abusive parents.

Figure 4.2

Means for Self-Report Ratings of Aggression
Across Imaginal Interviews



The pre-treatment means for the abusive and non-abusive parent interviews are 2.5 and 1.5, respectively. The post-treatment means for the abusive and non-abusive parent interviews are 2.1 and 1.3, respectively.

Changes in Constructive Action

Table 4.11 reports the results of the analysis of covariance on the Self-Report Ratings of Constructive Action scores. The fourth null hypothesis (Hypothesis 4), which stated that there is no statistically significant difference in the increase in constructive action between therapists who have taken systematic desensitization training and therapists who have taken no training as measured by self-report ratings of constructive action, and the eighth null hypothesis (Hypothesis 8), which stated that there is no statistically significant difference in the increase in constructive action between therapists who have taken cognitive self-control training and therapists who have taken no training as measured by self-report ratings of constructive action, were supported ($p < .05$).

Table 4.11

Analysis of Covariance on the Self-Report
Ratings of Constructive Action Scores

Source	Mean Square	df	F	P
Anger	41.045	2	2.192	.132
Error	18.727	26		

Table 4.12

Treatment Group Means for Self-Report Ratings
of Constructive Action Scores

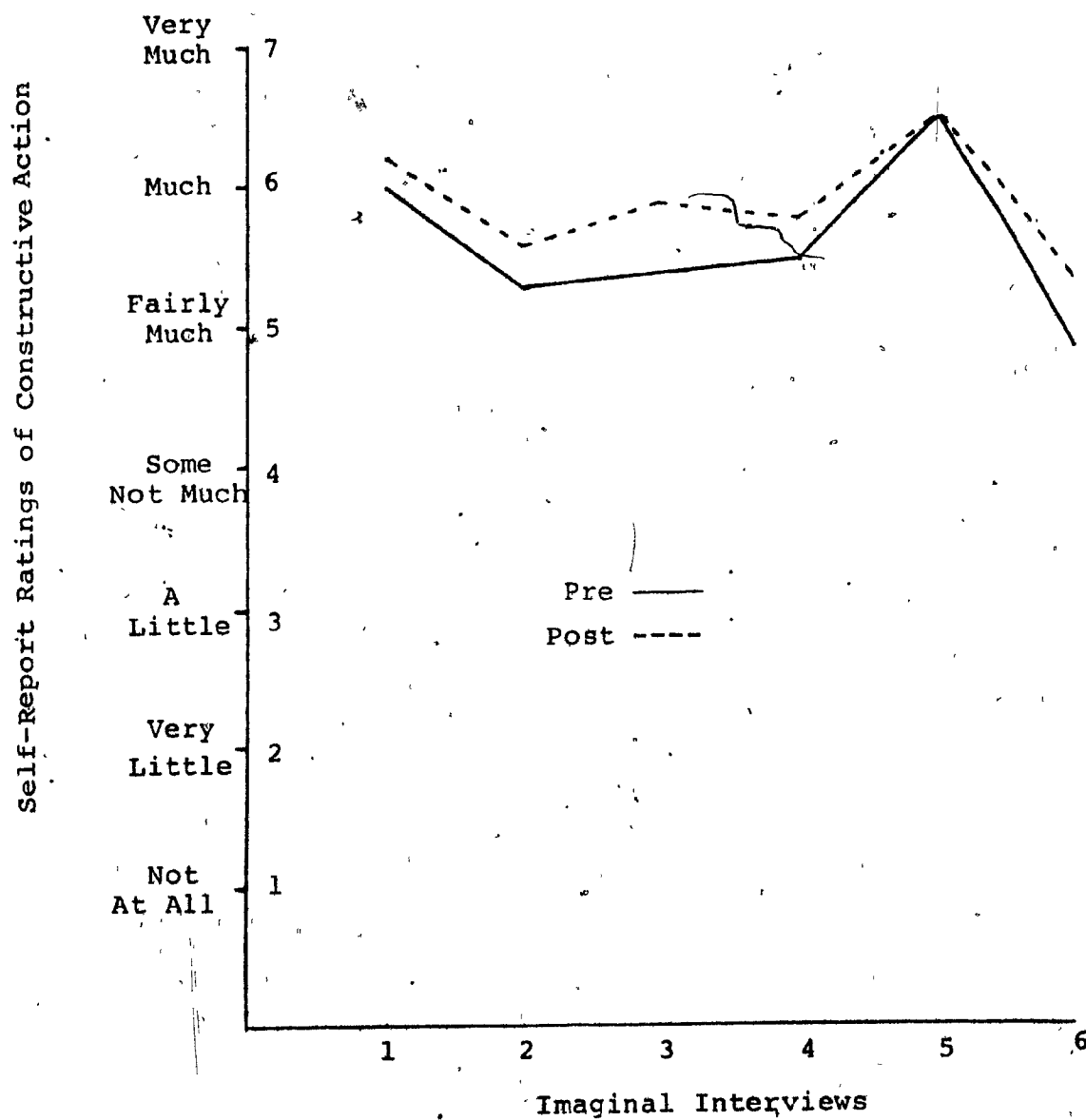
Treatment Group	Measure	
	Pre-Treatment	Post-Treatment
Systematic Desensitization	33.0	33.1
Cognitive Self-Control	32.0	36.6
No Treatment Control	29.4	32.0

Table 4.12 reports the treatment group means for Self-Report Ratings of Constructive Action scores. The systematic desensitization, cognitive self-control, and no training control group means show an increase in constructive action from pre-treatment to post-treatment.

Figure 4.3 shows the pre-treatment and post-treatment means for self-report ratings of constructive action across imaginal interviews. The odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents. The even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. Self-report ratings of constructive action are lowest for the imaginal interviews with abusive parents and highest for the imaginal interviews with non-abusive parents. The pre-treatment means for the abusive and non-abusive parent interviews are 5.2 and 6.0, respectively. The post-treatment means for the abusive and non-abusive parent interviews are 5.6 and 6.2, respectively.

Figure 4.3

Means for Self-Report Ratings of Constructive
Action Across Imaginal Interviews



Chapter V

Discussion

The purpose of this study was to evaluate experimentally the effectiveness of systematic desensitization and cognitive self-control training procedures in reducing anger arousal, overt hostility, and aggression; and their effectiveness in increasing constructive action in child abuse therapists. The results are relevant to the current clinical knowledge of anger arousal in child abuse counselling, the psychological literature on the dynamics of anger arousal, and the present training of child abuse therapists in anger control. The empirical results will be discussed with reference to the hypotheses of the study, theoretical concepts of anger arousal, and the research literature on experimental studies of training procedures relevant to anger control. Using this plan, the effects of the experimental treatments on the reduction of anger arousal, overt hostility, and aggression; and on the increase in constructive action will be discussed. This will be followed by sections indicating the limitations of this study and its implications for child abuse counselling research and practice.

Efficacy of Treatments

The systematic desensitization treatment procedures resulted in no statistically significant reduction in anger arousal as measured by the Anger Inventory or the Self-Report ratings of anger criterion measures ($p < .05$).

A somewhat significant treatment difference in the reduction of anger arousal was found at the .18 and .16 levels on the Anger Inventory and Self-Report ratings of anger scores, respectively. Although the Anger Inventory and Self-Report ratings of anger scores did not reach statistical significance, the pre-post systematic desensitization scores showed changes in anger in the desired direction.

The results of the present study are consistent with some of the earlier experimental findings of O'Donnell and Worell (1973). They assessed the effectiveness of systematic desensitization training procedures in reducing anger by means of a similar pretest-posttest study. Anger was aroused experimentally by exposing white males, selected for their reports of anger toward blacks, to provocative black racial stimuli. Both test battery and behavioural assessment measures were taken before and after the experimental treatments.

Using an Emotional Rating Scale to gather self-reports of anger to racial stimuli, O'Donnell and Worell obtained anger scores that did not reach an acceptable level of statistical significance but indicated changes in anger in the desired direction. Behavioural assessment measures produced similar results. Using an Adjective Check List and a five-point self-rating scale for anger, the researchers obtained anger scores that showed changes in anger in the desired direction but did not reach an acceptable level of statistical significance.

The results of the present study are in contrast to the findings of another pretest-posttest study of the effects of systematic desensitization on anger arousal. In a similar study involving experimentally aroused anger, Hearn and Evans (1972) investigated whether anger could be reduced by reciprocal inhibition therapy using systematic desensitization procedures. Their experimental study was designed to examine the effect of reciprocal inhibition therapy using systematic desensitization procedures on 15 specific anger-evoking scenes. The experimenter-constructed anger-evoking scenes were produced from the Reaction Inventory items most

frequently rated by the subjects on the pretest as resulting in "very much" anger. Using the 15 treatment-related Reaction Inventory items and semantic rating scales to assess anger, Hearn and Evans obtained two sets of anger scores on the posttest that did reach a high level of statistical significance ($p < .01$).

The similarity in results between those obtained by the present author and those obtained by O'Donnell and Worell; and the difference in results between those obtained by Hearn and Evans and those obtained in the present study need some further discussion. The conflicting results can possibly be explained by reference to theoretical concepts of anger arousal and to differences in treatment procedures. First, it should be pointed out that the three studies under discussion assessed the effectiveness of systematic desensitization treatment procedures using the same experimental technique. In each of the studies, anger was aroused experimentally using anger inducing scenes or stimuli. However, an important difference exists in the treatment procedures used in the three experiments. The systematic desensitization treatment procedures used by O'Donnell and Worell and the present investigator were applied to a set of anger inducing

scenes different than those used to arouse anger experimentally. By contrast, Hearn and Evans used the same set of anger inducing scenes or stimuli for both the pretest behavioural assessment and treatment procedures. The treated anger inducing scenes were then used to arouse anger experimentally for the posttest behavioural assessment. Applying systematic desensitization treatment procedures to the specific stimulus scenes used in the pretest behavioural assessment and then observing significant reductions in anger on the posttest seems consistent with what is known about the dynamics of anger arousal. It is known that anger arousal occurs in response to specific anger-eliciting stimuli. Therefore, applying systematic desensitization treatment procedures to specific anger-eliciting stimuli would reduce anger responses more for those stimuli compared to non-treated stimuli. One possible explanation for the modest results of the present study is that the systematic desensitization treatment procedures were applied to anger-eliciting stimuli different than those used in the experimental arousal of anger, and transfer of effect or generalization from treated to non-treated stimuli was insufficient to significantly reduce anger.

Further evidence to support the observation that anger arousal occurs in response to specific anger-eliciting stimuli and, therefore, possible support for applying systematic desensitization treatment procedures to specific anger-eliciting stimuli in order to reduce anger responses to those stimuli is found in Figure 4.1. The figure shows the pre-treatment and post-treatment means for self-report ratings of anger across the imaginal interviews used in the laboratory behavioural assessments. The odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents. The even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. As the figure indicates, self-report ratings of anger are highest for the imaginal interviews with abusive parents and lowest for the imaginal interviews with non-abusive parents. In fact, the self-report ratings of anger for the abusive parent interviews are twice as high as the anger ratings for the non-abusive parent interviews for both the pre-treatment and post-treatment scores. This experimental evidence would suggest that anger arousal is stimulus specific, and, therefore, the use of systematic desensitization treatment procedures to reduce

anger arousal might possibly be more effective if the procedures were applied to specific anger-eliciting stimuli. The results of the present study might possibly have been statistically significant if the systematic desensitization treatment had been carried out using the same anger inducing stimuli used for the experimental arousal of anger.

No statistically significant reduction in overt hostility on the Hostility Inventory or the Hostility Directed Outward criterion measures was another result demonstrated in the experiment. Noticeable treatment differences in the reduction of overt hostility were approached at the .09 and .18 levels using the Hostility Inventory and Hostility Directed Outward scores, respectively. Although the Hostility Inventory and Hostility Directed Outward scores did not reach statistical significance, the pre-post systematic desensitization treatment scores showed changes in overt hostility in the desired direction.

The present results for the Hostility Inventory and Hostility Directed Outward scores are also consistent with the results of O'Donnell and Worell's experiment discussed previously. Using the same Hostility Inventory to assess general hostility, they also obtained hostility scores that

did not reach an acceptable level of statistical significance but indicated changes in hostility in the desired direction. Similar results were also obtained for the Hostility Directed Outward scores. The scores indicated changes in hostility in the desired direction but did not reach an acceptable level of statistical significance.

The close association between anger and hostility probably accounts for the similarity in results for the anger and hostility scores. Both the anger and hostility scores in O'Donnell and Worell's study and the present study did not reach an acceptable level of statistical significance but indicated changes in the desired direction. The similarity in results seems consistent with the clinical observation that the two phenomena of anger and hostility occur together fairly frequently. Thus, a change in anger is often accompanied by a change in hostility. One of the assumptions of the present study is that the four dependent variables are related to a single underlying variable. The similar results for the anger and hostility data appear to support the correctness of the assumption.

The systematic desensitization treatment procedures also resulted in no statistically significant reduction in aggression on the Self-Report rating of aggression criterion measure ($p < .05$). A significant trend toward treatment difference in the reduction of aggression was approached at the .16 level. The pre-post systematic desensitization treatment scores showed changes in aggression in the desired direction although the Self-Report ratings of aggression scores did not reach statistical significance.

The results for the aggression scores are also similar to the results for the anger scores discussed above. Both the anger and aggression scores did not reach statistical significance but showed changes in the desired direction. The similarity in results seems consistent with what is known about the dynamics of anger arousal and aggression. It is known that anger arousal is an antecedent (or determinant) of aggressive behaviour. It has also been demonstrated that aggressive behaviour is directly related to the level of anger arousal. The greater the level of anger arousal the greater the aggressive behaviour and, conversely, the lower the level of anger arousal the lower the aggressive behaviour.

The significant correlation between the level of anger arousal and the level of aggression probably accounts for the similarity in results for the anger and aggression scores. The results are also consistent with the assumption of this study that the dependent variables are related to a single underlying variable.

Further evidence to support the validity of the aggression results and the correctness of the assumption that the four dependent variables are related to a single underlying variable is found in Figure 4.2 (page 98). The figure shows the pre-treatment and post-treatment means for self-report ratings of aggression across the imaginal interviews used in the laboratory behavioural assessments. As indicated previously, the odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents and the even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. As the figure indicates, self-report ratings of aggression are highest for the imaginal interviews with abusive parents and lowest for the imaginal interviews with non-abusive parents for both the pre-treatment and post-treatment scores. The results for the self-report ratings of aggression are similar to the

results for the self-report ratings of anger discussed previously.

The aggression and anger scores also display the same pattern of fluctuation from interview to interview across the six imaginal interviews. An examination of the pretest curve in Figures 4.1 and 4.2 shows that there is a relatively sharp rise in both curves between interview number one and interview number two followed by a relatively slight fall in both curves between interview number two and interview number three. Between interview number three and interview number four there is a relatively slight rise in both curves followed by a relatively sharp fall in both curves between interview number four and interview number five. Both curves then show a relatively sharp rise between interview number five and interview number six. The same pattern of fluctuation is also reflected in the posttest curves. This experimental evidence appears to support the existence of a significant correlation between anger and aggression and, thus, possibly account for the similarity in results for the anger and aggression scores discussed previously.

Figures 4.1 and 4.2 also provide further evidence to suggest that the subjects were discriminating clearly between abusive and non-abusive parent interviews in their self-report ratings of anger and aggression. As the curves indicate, the discrimination between abusive and non-abusive parent interviews was consistent from interview number one to interview number six for both the pretest and posttest scores. The high degree of discrimination demonstrated during the experimental arousal of anger also suggests that anger arousal was stimulus specific. As discussed previously, the specificity of anger-eliciting stimuli may account for the systematic desensitization treatment procedures used in the present experiment not significantly reducing anger and, consequently, aggression.

No statistically significant increase in constructive action on the Self-Report ratings of constructive action criterion measure was another result demonstrated in the experiment ($p < .05$). A trend toward significant treatment difference in the increase in constructive action was found at the .13 level. Although the Self-Report ratings of constructive action scores did not reach statistical significance, the pre-post systematic desensitization treatment scores showed changes in constructive action in the desired direction.

The results for the Self-Report ratings of constructive action scores seem consistent with the results reported for the aggression scores. The inverse relationship between constructive action and aggression probably accounts for the consistency in results. Figure 4.3 shows the pre-treatment and post-treatment means for self-report ratings of constructive action across the imaginal interviews used in the laboratory behavioural assessments. As mentioned previously, the odd-numbered imaginal interviews (1, 3, 5) are the interviews with non-abusive parents and the even-numbered imaginal interviews (2, 4, 6) are the interviews with abusive parents. As the figure indicates, self-report ratings of constructive action are lowest for the imaginal interviews with abusive parents and highest for the imaginal interviews with non-abusive parents for both the pre-treatment and post-treatment scores. As expected, the scores for the self-report ratings of constructive action are directly opposite to those obtained for aggression.

An examination of the pretest and posttest curves in Figure 4.2 and Figure 4.3 shows that constructive action scores follow a pattern of fluctuation that is inverse to the pattern followed by aggression scores. From interview

number one to interview number six, the constructive action and aggression scores move in opposite directions for each imaginal interview. It is clear that the constructive action curve in Figure 4.3 inversely reflects the aggression curve in Figure 4.2. This experimental evidence appears to support the existence of a significant inverse correlation between constructive action and aggression, and, thus, possibly account for the similarity in results for the constructive action and aggression scores discussed previously. The experimental evidence is also consistent with the assumption of this study that the dependent variables are related to a single underlying variable.

The cognitive self-control treatment procedures also resulted in no statistically significant reduction in anger arousal. As indicated in the discussion of results for the systematic desensitization treatment procedures, a significant trend toward treatment difference in the reduction of anger arousal was found for the Anger Inventory and Self-Report ratings of anger scores at the .18 and .16 levels, respectively. Although the Anger Inventory and Self-Report ratings of anger scores did not reach the desired level of statistical significance, the pre-post cognitive self-control treatment scores showed changes in anger in the desired direction.

The results of the present study are in contrast to the findings of another experimental study of the effects of cognitive self-control treatment procedures on anger control. In a similar pretest-posttest study involving the use of cognitive self-control treatment procedures, Novaco (1975) investigated the reduction of anger in persons who were both self-identified and assessed as having real anger control problems. His experimental study also involved the use of an anger inventory similar to the one used in the present study and an anger self-report for assessing anger. The anger self-report, which was used by Novaco for the laboratory provocations and behavioural assessments, was the same one used by the present investigator to assess anger arousal and coping behaviour during the experimental arousal of anger. Using the anger inventory and anger self-report instruments to assess anger, Novaco obtained scores that did reach statistical significance. The results showed that the cognitive self-control treatment procedures were effective in reducing anger in persons having real anger control problems.

The difference in results between those obtained by Novaco and those obtained by the present author need some further discussion. The conflicting results can possibly be explained by reference to theoretical concepts of anger arousal and cognition and to differences in experimental methodology. First, it should be pointed out that the two studies under discussion assessed the effectiveness of cognitive self-control treatment procedures using the same experimental technique. In both of the studies, anger was aroused experimentally using laboratory provocations in the imaginal mode. However, an important difference exists between the experimental methodology used by Novaco and that used by the present investigator. The experimental subjects used by Novaco were both self-identified and assessed as having real anger control problems. By contrast, the subjects used by the present investigator were not persons assessed as having real anger control problems nor were they self-identified as such. Novaco's study also examined the therapeutic application of cognitive self-control treatment procedures to chronic anger control problems..

The present study examined the effectiveness of cognitive self-control treatment procedures when applied to a specific anger control problem: counselling an abusive parent.

Given the differences in experimental methodology between the two studies, the differences in results may not be that much in conflict. Some theoretical concepts of anger and cognition may possibly help explain the different results. It is known that cognitive factors act as mediating influences in the stimulus-anger arousal relationship. One important influence on cognition is information. As mentioned previously, the subjects in Novaco's experimental study were both self-identified and assessed as having real anger control problems. This information regarding the clinical aspects of the problem under investigation could possibly influence the subjects' anger responses during the laboratory provocations. More specifically, the clinical nature of the anger control problem under investigation and Novaco's interest in developing and testing therapeutic techniques for the treatment of chronic anger control problems could possibly influence the subjects' expectations toward the efficacy of the cognitive

self-control treatment procedures. Consequently, the subjects' anger responses during the posttest laboratory provocations could also be influenced. By contrast, the subjects in the present experimental study were neither self-identified nor assessed as having real anger control problems. Subjects were only aware that the anger control problem under investigation was academic and not clinical in terms of being a personal problem. Given this prior information about the experimental study, subjects were not as likely to be personally involved in the cognitive self-control treatment procedures nor the posttest laboratory provocations. The differences in prior information or cognitions regarding the nature of the experimental studies and, consequently, the subjects' expectations of the efficacy of the cognitive self-control treatment procedures in reducing anger may, therefore, possibly account for the differences in results between Novaco's study and the present study.

The cognitive self-control treatment procedures also resulted in no statistically significant reduction in overt hostility as measured by the Hostility Inventory or the Hostility Directed Outward scores. As indicated previously,

a significant trend toward treatment difference in the reduction of overt hostility was found at the .09 and .18 levels using the Hostility Inventory and Hostility Directed Outward scores, respectively. Although the scores did not reach the desired level of statistical significance, the pre-post cognitive self-control treatment scores showed changes in overt hostility in the desired direction for the Hostility Directed Outward scores. No change in overt hostility was shown for the Hostility Inventory scores.

No statistically significant reduction in aggression on the Self-Report ratings of aggression scores was another result demonstrated in the experiment ($p < .05$). Difference in the reduction of aggression began to approach significance at the .16 level. The pre-post cognitive self-control treatment scores showed changes in aggression in the desired direction; although, the Self-Report ratings of aggression scores did not reach statistical significance.

The cognitive self-control treatment procedures also resulted in no statistically significant increase in constructive action on the Self-Report ratings of constructive action scores. The trend toward significant treatment

difference in the increase in constructive action was only approached at the .13 level. Although the Self-Report Ratings of constructive action scores did not reach statistical significance, the pre-post cognitive self-control treatment scores showed changes in constructive action in the desired direction.

As discussed previously, the close association between anger, hostility, aggression, and constructive action probably accounts for the similarity in results obtained for the six dependent measures. All six of the dependent measures produced scores that did not reach an acceptable level of statistical significance but, with the exception of the Hostility Inventory scores, indicated changes in the dependent variables in the desired direction. The similarity in results for the six dependent measures used to operationalize the four dependent variables appears to support the correctness of the assumption that the four dependent variables are related to a single underlying variable. Thus, a reduction in anger due to the application of systematic desensitization, cognitive self-control, or other treatment procedure is likely to be reflected in a similar reduction in overt hostility and aggression and an increase in constructive action.

Limitations of the Study and Recommendations for Further Research

1. In this experimental study, treatment differences showing trends toward significance at the .18, .16, .13 and .09 levels are reported and discussed. The reporting of these differences may assist in identifying treatment differences to be examined in future studies of anger arousal in child abuse counselling.

It is recommended that future research verify the efficacy of the systematic desensitization and/or cognitive self-control treatment procedures as suitable training procedures for reducing anger in child abuse therapists.

2. The findings of the present study contradict earlier experimental studies regarding the efficacy of systematic desensitization treatment procedures in reducing anger. These findings point to the need for a re-examination of the critical factors in the use of systematic desensitization treatment procedures in reducing anger.

It is recommended that further studies investigate the effect of systematic desensitization treatment procedures on therapist anger in which such variables as specificity of anger evoking stimuli and transfer effect are examined.

3. The findings of the present study contradict earlier experimental studies regarding the efficacy of cognitive self-control treatment procedures in reducing anger. These findings point to the need for a re-examination of the critical factors in the use of cognitive self-control treatment procedures in reducing anger.

It is recommended that further studies investigate the effect of cognitive self-control treatment procedures on therapist anger in which such variables as therapist information regarding the kind of anger control problem being treated and therapist expectations regarding the efficacy of the treatment procedures are examined.

4. In this study, a systematic desensitization and a cognitive self-control treatment procedure were found to be ineffective in reducing anger responses toward child abuse related stimuli. The question of why the two treatment procedures were ineffective in reducing anger was only partially answered by reference to theoretical concepts of anger arousal and the research literature on experimental studies of training procedures relevant to anger control.

As with most experimental studies which focus on the specific outcomes of treatment procedures, it would be of value to assess more fully the reasons for the outcome of the present study.

It is recommended that more intensive examination of the process of anger reduction associated with the systematic desensitization and cognitive self-control treatment procedures be undertaken with child abuse related stimuli.

Implications for Counselling Practice

The results of the present study appear to support the clinical observations of practicing professionals that treatment interventions are unusually demanding of those people involved with helping the abusing parent or caretaker. Regardless of the abuser's behaviour, the psychiatrist, psychologist, or social worker must establish a therapeutic relationship that is of the highest standard. The achievement of this standard places considerable demands on the therapist's counselling skill. As experienced clinicians have repeatedly pointed out, one of the major problems for the therapist in his helping relationships with child abusers is his own emotional reactions, particularly his feelings about the parents and what they have done to their child. The present experiment provides empirical

evidence showing that the feeling of anger directed at the abusing parent or caretaker is one of the most common emotional reactions experienced by child abuse workers. Thus, one important implication of the present study for child abuse counselling work is that anger arousal is a very real problem for therapists and must be recognized as such by those providing treatment services.

A second implication of the present study is that specialized training procedures in anger control may not be that useful in the professional preparation of social workers, psychiatrists, and other child abuse workers involved in treatment interventions. The problem of anger arousal in child abuse counselling may be the manifestation of a broader and deeper dynamic than emotional reaction to specific stimuli. Consequently, specialized training procedures such as systematic desensitization and cognitive self-control may not be that effective in helping therapists deal with their anger arousal in child abuse counselling situations. Certainly, the results of the present experiment seem to suggest the necessity of continuing the search for alternative anger control training procedures for child abuse workers.

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APPENDIX I

Consent for TrainingContentsPage

The consent for training form

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Consent for Training

The purpose and the method of the study has been fully explained to me and I agree to participate in the study. It is understood that individual test results and any personal information derived from the study will be strictly confidential and will be known only to the researcher.

Signed _____

Date _____

APPENDIX II

InstrumentsContentsPage

The child abuse anger report	143
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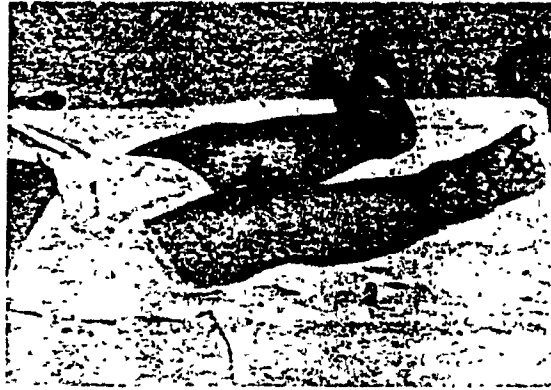
Child Abuse Anger Report

INSTRUCTIONS: On the scale at the bottom of each of the following pages, please circle the number that indicates how much anger you feel toward the parent or caretaker who committed the abuse described in the case study.

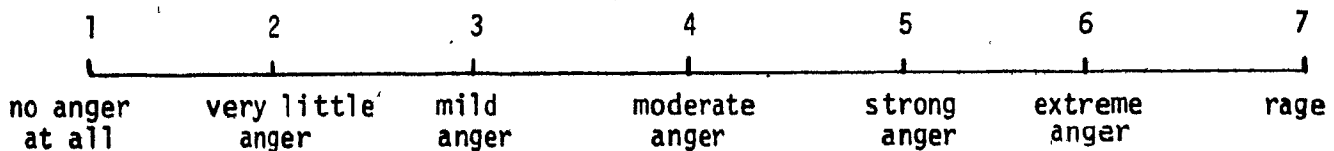


Case 1 - The picture above shows a girl, aged 3 years, with multiple bruises of varying ages. Her cheeks were so bruised she could not chew. Her body was a mass of bruises of varying ages, the skin being broken in a number of places. Because she would not speak to her father, who had separated from the mother, the father thrashed her with his belt every night at 5 o'clock after work after undressing her.

1	2	3	4	5	6	7
no anger at all	very little anger	mild anger	moderate anger	strong anger	extreme anger	rage

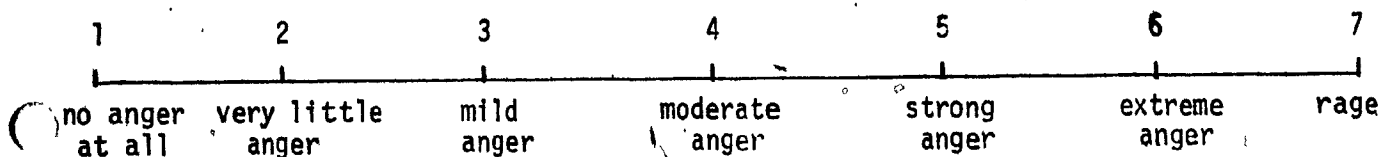


Case 2 - The picture above shows a male child, aged nine months, after immersion of his feet in near-boiling water. The child's mother often left the father, and on this particular day, the father, irritated at being left with the child, ran a hot bath, and when the child screamed, lost his temper, dipped the child and left him in his cot. The father went to bed, and left for work as usual, a kindly neighbour discovering the child.





Case 3 - The picture above shows a male child, aged 2 years, with multiple fractures of the lower limbs. Following treatment, he was discharged home. Less than a year later, he was admitted again to hospital, totally blind, with a fracture of the left clavicle and pressure sores on the buttocks. He was sent to the Institute for the Blind for two years, and then was allowed home for the school holidays fit and well. Less than a month later, he was readmitted to the hospital with marked hypothermia, and died nine hours later. Post-mortem examination showed intracerebral haemorrhage of "uncertain cause".



NAME _____
DATE _____

ANGER SELF-REPORT FORM

We would like you to consider carefully the following statements and indicate as accurately as you can how it applies to you. There are no right or wrong answers, we just want to know how you feel.

Please mark next to each statement according to the amount of your agreement or disagreement by using the following scale:

- | | | | |
|---|--------------------|----|-----------------------|
| 1 | slight agreement | -1 | slight disagreement |
| 2 | moderate agreement | -2 | moderate disagreement |
| 3 | strong agreement | -3 | strong disagreement |

Mark all statements!

If a statement is unclear to you place an "X" next to it in the margin but mark it anyway. If a statement somehow does not apply to you, place a "?" next to it in the margin but mark it anyway.

Please begin.

- ___1. I get mad easily.
- ___2. I am often inclined to go out of my way to win a point with someone who has opposed me.
- ___3. It makes me annoyed to have people ask my advice or otherwise interrupt me when I am working on something important.
- ___4. People are only interested in you for what they can get.
- ___5. I seldom strike back, even if someone hits me first.
- ___6. People will hurt you if you don't watch out.
- ___7. I would be pleased if I never got angry.
- ___8. Students are justified in feeling angry about conditions in the universities.
- ___9. I never feel hate towards members of my family.
- ___10. Often people are friendly when they want something but drop you when they no longer need you.
- ___11. No one wants to hurt me.
- ___12. People should never get angry.
- ___13. Some of the people closest to me take secret satisfaction in my misfortunes.
- ___14. It's right for people to express themselves when they are mad.
- ___15. Some of my family have habits that bother and annoy me very much.
- ___16. When I get mad, I say nasty things.
- ___17. I felt angry when I felt my folks were unreasonable about making me obey.
- ___18. If I do something mean to somebody, I can't stop thinking about it for days.
- ___19. Even when my anger is aroused, I don't use strong language.
- ___20. If I am mad, I really let people know it.
- ___21. Sometimes I feel that I could injure someone.
- ___22. I will criticize someone to his face if he deserves it.

- ___ 23. When someone plays a trick on me, I feel sorry and try to forgive him.
- ___ 24. I rarely hate myself.
- ___ 25. I get into fist fights about as often as the next person.
- ___ 26. People should never get irritated.
- ___ 27. I find that I cannot express anger at someone until they have really hurt me badly.
- ___ 28. I think I'm a pretty nice person.
- ___ 29. Even when people yell at me, I don't yell back.
- ___ 30. The world is a dangerous place to live in.
- ___ 31. At times I have a strong urge to do something harmful or shocking.
- ___ 32. I have many quarrels with members of my family.
- ___ 33. I don't feel guilty when I swear under my breath.
- ___ 34. Often people who are really out to get you act as nice as can be on the outside.
- ___ 35. Too often I accept responsibilities for mistakes that are made.
- ___ 36. I hardly ever punish myself.
- ___ 37. Feeling angry is terrible.
- ___ 38. I wouldn't feel ashamed if people knew I was angry.
- ___ 39. I never do anything right.
- ___ 40. It doesn't make me angry to have people hurry me.
- ___ 41. If I don't like somebody, I will tell him so.
- ___ 42. I don't deserve the hardships I've had.
- ___ 43. I have physically hurt someone in a fight.
- ___ 44. At times I feel like smashing things.
- ___ 45. I wish I got angry less often.

- ☐ 46. I don't regret feeling angry.
- ☐ 47. Whatever else may be my faults, I never knowingly hurt another person's feelings.
- ☐ 48. I really wish I could be a better person.
- ☐ 49. It doesn't bother me very much when I hurt someone's feelings.
- ☐ 50. I usually am satisfied with myself.
- ☐ 51. I never feel like picking a fist fight with someone.
- ☐ 52. I feel that it is certainly best to keep my mouth shut when I am angry.
- ☐ 53. I find it easy to express anger at people.
- ☐ 54. My parents never made me angry.
- ☐ 55. I can depend on people when in trouble.
- ☐ 56. I admire people who assert themselves.
- ☐ 57. Even when someone does something mean to me, I don't let him know I'm upset.
- ☐ 58. At times I hurt a person I love.
- ☐ 59. People do not generally disappoint me.
- ☐ 60. My conscience would punish me if I tried to exploit someone else.
- ☐ 61. I hardly ever feel like swearing.
- ☐ 62. I couldn't hit anyone even if I were extremely angry.
- ☐ 63. I don't feel sorry for putting people in their place.
- ☐ 64. I'm just no good.
- ☐ 65. I would like myself better if I could get angry.
- ☐ 66. I never think of killing myself.
- ☐ 67. I hardly ever get angry.
- ☐ 68. Even though I disapprove of my friends' behaviour, I just can't let them know.

- ___ 69. I find it hard to think badly of anyone.
- ___ 70. I can think of no good reason for ever hitting anyone.
- ___ 71. When people are angry, they should let it out.
- ___ 72. I blame myself if anything goes wrong.
- ___ 73. I am rarely cross and grouchy.
- ___ 74. I generally cover up my poor opinions of others.
- ___ 75. I look up to people who say what's on their mind even though it might hurt someone.
- ___ 76. In spite of how my parents treated me, I didn't get angry.
- ___ 77. I could not put someone in his place even if he needed it.
- ___ 78. It's easy for me not to fight with those I love.
- ___ 79. When I really lose my temper, I am capable of slapping someone.
- ___ 80. If someone annoys me, I am apt to tell him what I think of him.
- ___ 81. Our major institutions are falling apart.
- ___ 82. People are as thoughtful of my feelings as I am of theirs.
- ___ 83. It's useless to get angry.
- ___ 84. Generally you can depend on people to help you.
- ___ 85. If I dislike somebody, I let him know.
- ___ 86. If someone crosses me, I tend to get back at him.
- ___ 87. I think little of people who get angry.
- ___ 88. I often feel disaster is just around the corner.
- ___ 89. Generally speaking, people aren't angry.

THE REACTION INVENTORY

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DIRECTIONS

The items in this questionnaire refer to things and experiences that may cause anger or other unpleasant feelings. On the separate answer sheet write the number of each item in the column that describes how much you get angered by it.

1. People pushing into line.
2. People being cruel to children.
3. People who destroy borrowed things.
4. Locking your keys in the car.
5. Waiting for someone who is late or doesn't show up.
6. People who are loud and obnoxious.
7. Injuring yourself.
8. Getting halfway to your destination and having forgot something.
9. Having things spilled on new clothes.
10. People asking personal questions.
11. Someone breaking something you value.
12. Running out of gas.
13. Being stuck in traffic when you're late.
14. People acting as though you are stupid.
15. Rude sales clerks.
16. People gossiping.
17. Losing money or valuables.
18. Waiting for a parking spot and having someone take it.
19. T.V. breaking down in the midst of a favorite program.

20. People making loud noises when you are trying to sleep. 152
21. Finding someone has lied to you.
22. Running out of something you need at the moment.
23. The telephone or doorbell ringing when you are busy at something.
24. Not having enough money to buy something.
25. Not having the right change for the telephone or parking meter.
26. Guests who arrive around meal time.
27. Someone driving carelessly.
28. Having to do something in a way which you know is inefficient.
29. Missing an activity that you really wanted to attend.
30. Finding out about something you would have liked to have seen after leaving a place.
31. People who don't control their children in public.
32. Destructive people.
33. Loud noises such as cars or motorcycles with no mufflers.
34. People who litter public areas.
35. People taking advantage of you.
36. Outdoor events being spoiled by bad weather.
37. Having your movements restricted.
38. Long waits for service in a restaurant.
39. Lazy people who won't do their share.
40. People complaining about things.
41. Windows that won't open.
42. Buying something, using it and seeing it cheaper elsewhere.
43. Being cheated in a business transaction.
44. Being forced to do something you don't want to do.
45. Missing a bus, train or plane.

46. People who brag about things.
47. Inaccurate newspaper articles.
48. Prejudiced people.
49. People who don't understand something you're trying to explain.
50. Being forced to repeat something several times.
51. Being interrupted.
52. Having to do something else when you're in a hurry.
53. Criticism.
54. Having to take orders.
55. People who think they know it all.
56. People being sarcastic toward you.
57. People trying to better you.
58. Unclean, smelly people.
59. People who can't follow your orders.
60. Breaking a tool in the midst of a job.
61. Servicemen failing to repair things.
62. People who are constantly fidgeting.
63. People who expect things done in their time not yours.
64. Being underpaid in a job.
65. Seeing people's rights violated by authorities.
66. Having to re-do work.
67. Ill-mannered people.
68. People who speak on subjects they know nothing about.
69. People who think they are always right.
70. Phony people.
71. Stores that fail to back their merchandise.

- 72. Self righteous people.
- 73. People who interfere in others' affairs.
- 74. Finding that someone has overcharged for services.
- 75. Being ignored by someone.
- 76. Being teased about your faults.

NAME _____

DATE _____

THE REACTION INVENTORY

155

ANSWER SHEET

	Not at all	A little	A fair amount	Much	Very much
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DATE _____

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NAME _____

DATE _____

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NAME _____

DATE _____

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76.				

HOSTILITY INVENTORY

159

NAME _____

INSTRUCTIONS:

The items in this questionnaire refer to the ways in which hostility is expressed. Circle the letter T if the item is TRUE for you. Circle the letter F if the item is FALSE for you.

- T F 1. I seldom strike back, even if someone hits me first.
- T F 2. When I disapprove of my friends' behaviour, I let them know it.
- T F 3. Sometimes people bother me just by being around.
- T F 4. I often find myself disagreeing with people.
- T F 5. I sometimes have bad thoughts which make me feel ashamed of myself.
- T F 6. I can think of no good reason for ever hitting anyone.
- T F 7. When I am angry, I sometimes sulk.
- T F 8. When someone is bossy, I do the opposite of what he asks.
- T F 9. I am irritated a great deal more than people are aware of.
- T F 10. I don't know any people that I downright hate.
- T F 11. If someone hits me first, I let him have it.
- T F 12. I am always patient with others.
- T F 13. Occasionally when I am mad at someone I will give him the "silent treatment".
- T F 14. It depresses me that I did not do more for my parents.
- T F 15. When people are bossy, I take my time just to show them.
- T F 16. Even when my anger is aroused, I don't use "strong language".
- T F 17. If someone annoys me, I am apt to tell him what I think of him.
- T F 18. I often feel like a powder keg ready to explode.
- T F 19. Although I don't show it, I am sometimes eaten up with jealousy.
- T F 20. I do many things that make me feel remorseful afterward.
- T F 21. When I really lose my temper, I am capable of slapping someone.
- T F 22. When I get mad, I say nasty things.

- ☒ F 23. I sometimes carry a chip on my shoulder.
- ☒ F 24. If I let people see the way I feel, I'd be considered a hard person to get along with.
- T F 25. I commonly wonder what hidden reason another person may have for doing something nice for me.
- T F 26. Failure gives me a feeling of remorse.
- T F 27. I get into fights about as often as the next person.
- T F 28. I can't help being a little rude to people I don't like.
- T F 29. I generally cover up my poor opinion of others.
- T F 30. If I have to resort to physical violence to defend my rights, I will.
- T F 31. If someone doesn't treat me right, I don't let it annoy me.
- T F 32. I often feel that I have not lived the right kind of life.
- T F 33. I have known people who pushed me so far that we came to blows.
- ☒ F 34. I don't let a lot of unimportant things irritate me.

NAME: _____

ANGER SELF-REPORT

161

1. Rate the degree to which this parent made you feel angry:

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

2. If this parent had actually been interviewed by you, rate the likelihood that you would act in each of the following ways - that is, to what extent would each of these be true for you:

a. I would curse or shout.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

b. I would want to hit the person.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

c. I would stay composed and be constructive.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

d. I would want to pound or kick something.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

e. I would want to tell the person off and start an argument.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

f. I would try to understand the situation and keep cool about it.

1	2	3	4	5	6	7
not at	very	a	some	fairly		very
all	little	little	not much	much	much	much

Hostility Directed Outward Scale: Destructive,
Injurious, Critical Thoughts and Actions
Directed to Others

Hostility Outward - Overt

Thematic Categories

- a3 Self killing, fighting, injuring other individuals or threatening to do so.
- b3 Self robbing or abandoning other individuals, causing suffering or anguish to others, or threatening to do so.
- c3 Self adversely criticizing, depreciating, blaming, expressing, anger, dislike of other human beings.
- a2 Self killing, injuring or destroying domestic animals, pets, or threatening to do so.
- b2 Self abandoning, robbing, domestic animals, pets, or threatening to do so.
- c2 Self criticizing or depreciating others in a vague or mild manner.
- d2 Self depriving or disappointing other human beings.
- a1 Self killing, injuring, destroying, robbing wildlife, flora, inanimate objects or threatening to do so.
- b1 Self adversely criticizing, depreciating, blaming, expressing anger or dislike of subhuman, inanimate objects, places, situations.
- c1 Self using hostile words, cursing, mention of anger or rage without referent.

APPENDIX III

Laboratory ProceduresContentsPage

Laboratory instructions

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Laboratory narration

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Laboratory Instructions

1. Please proceed to cubicle number _____ and wait for further instructions.
2. Do not read any of the printed material until requested to do so.
3. Do not touch the recording controls until requested to do so.
4. Do not talk to other subjects during the audiovisual presentation.
5. No smoking in the language laboratory.

Thank you for your cooperation.

<u>Slide</u>	<u>Narration</u>	<u>Exposure Times</u>
1	Please make yourself comfortable. The audiovisual presentation will begin in three minutes. Thank you.	3 min.
2	The audiovisual presentation will now begin.	15 sec.
3	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.
4	The person being interviewed is a parent of this 6-year-old girl who has abrasions and lacerations on her face and neck. The girl's injuries were inflicted by some teenagers who tied her up and beat her.	30 sec.
5	Medcom slide #13	30 sec.
6	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
7	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number One.	1½ min.
8	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
9	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.
10	The person being interviewed is the parent who inflicted multiple fract- ures on the skull of this 6-year-old girl by beating her with a blunt object. The child died as a result of her injuries.	30 sec.

<u>Slide</u>	<u>Narration</u>	<u>Exposure Time</u>
11	Medcom slide #97	30 sec.
12	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
13	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number Two.	1½ min.
14	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
15	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.
16	The person being interviewed is a parent of this 5-month-old girl who has burns on her legs, buttocks and perianal areas. The girl's injuries are the result of an accident involving a pan of hot water.	30 sec.
17	Medcom slide #8	30 sec.
18	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
19	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number Three.	1½ min.
20	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
21	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.
22	The person being interviewed is the parent who inflicted abrasions on the back, buttocks and legs of this 9-year-old boy by beating him with a strap.	30 sec.

<u>Slide</u>	<u>Narration</u>	<u>Exposure Time</u>
23	Medcom slide #18	30 sec.
24	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
25	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number Four.	1½ min.
26	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
27	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.
28	The person being interviewed is a parent of this 9-year-old boy who has multiple fractures of the skull. The boy's injuries are the result of an automobile accident. The child died of his injuries.	30 sec.
29	Medcom slide #91	30 sec.
30	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
31	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number Five.	1½ min.
32	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
33	Please imagine yourself interviewing the following person in an initial therapy session.	15 sec.

<u>Slide</u>	<u>Narration</u>	<u>Exposure Time</u>
34	The person being interviewed is the parent who inflicted first and second degree burns on the face and chest of this 14-month-old boy by pouring a hot liquid on him.	30 sec.
35	Medcom slide #9	30 sec.
36	Now go right on imagining yourself interviewing the person as if it were actually happening.	30 sec.
37	Please complete and sign one of the anger self-report forms and return it to the envelope marked Number Six.	1½ min.
38	The results will now be collected. Please give the completed form and envelope to the monitor when asked.	2 min.
39	The final section of this audiovisual presentation will follow a two-minute waiting period. Please remain seated.	2 min.
40	The following words are from an initial therapy session with an abusive mother. Please imagine yourself interviewing her.	30 sec.
41	I got so desperate with Paul. I remember meeting a health visitor out in the street - I wasn't under her and she said, hello, you've had your baby? I said yes.	Continuous
42	I said, if only he'd sleep, he hasn't slept since I've had him - he was about two months then - I hadn't had one night's sleep, and that meant every two hours he'd wake, every two hours! And I'd do everything I knew. I'd feed him, I'd change him and give him extra food, and still he wouldn't sleep. I was so desperate. "Oh, he'll	3 min.
43	settle down, in three months he'll settle, he'll change at three months."	

SlideNarrationExposure Time

- 44 I waited for three months to come, he didn't change, he went on and on, and every week, twice a week, I was round at the clinic and in the end they must have thought I was something odd! I'd walk in there and they'd look at one another as though to say, well here she comes again about her baby. But they didn't know how desperate I was. They don't understand. One time I was so tired, they said, give him a soother - it doesn't matter what people say - so I gave him a soother. Sometimes I'd shove my hand really
- 45 hard over his mouth with the soother in it to try to stop him crying. I'd take him into bed with me to try to stop him but he went on crying. He was still crying three or four times a night when he was twelve months, and still they hadn't done anything. Then this time, I just got hold of him, I threw him to the bottom of the
- 46 bed, I was so...of course things between my husband and myself were so bad I mean...I threw him really hard, but I suppose fortunately for Paul he hit the wooden bit at the bottom of the bed and didn't fall off. Of course he came up with a lovely big bruise, all his eye was cut and
- 47 bruised...I burned him later with the iron; I did it deliberately. I'd look at him, and think, oh you little bastard, you know? I just got hold of him, and burned him on the back of the hand. I was so fed up! He'd been whining; he was tired out in the day-
- 48 time because he didn't sleep at night. And of course I was tired too, and he wouldn't stop whining. I was ironing on the floor in the lounge, because it was just something quick I wanted - I was kneeling down and he was sitting over by the window. I just got hold of his hand, and I said, that'll make you sleep! It was all done in a quick

<u>Slide</u>	<u>Narration</u>	<u>Exposure Time</u>
49	second, you know, that I didn't... it wasn't sort of premeditated. I just looked at him, had the iron in my hand and did it. I took him round to the health visitor the same day, and I said, Paul's burned his hand.	
50	Now go right on imagining yourself interviewing the abusive mother as if it were actually happening.	30 sec.
51	Please switch the recording control to <u>On</u> .	30 sec.
52	You can be sure that no one in this language laboratory can hear what you say when the earphones are in place.	30 sec.
53	Please put on your earphones and talk into the microphone about any topics or feelings that you care to talk about.	15 sec.
54	To help you get started, please begin by saying: "After seeing the slides and hearing the abusive mother's story, the things running through my mind are....." Now please continue. You have five minutes.	5 min.
55	Please switch the recording control to <u>Off</u> and remove your earphones.	30 sec.
56	Please remove the cassette tape and write your name and the date on it.	3 min.
57	Please give your cassette tape to the monitor when asked.	3 min.
58	Thank you for your participation. You are now free to leave.	3 min.

APPENDIX IV

Treatment Procedures: Systematic
Desensitization

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Child abuse case summaries	174
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Instructions to trainers: Session two	188
Desensitization instructions	189

Systematic Desensitization: Session One Time: 1 hr

Instructions

1. Introduce yourself
2. Distribute anger hierarchy forms and child abuse case summaries
3. Collect completed anger hierarchy forms and child abuse case summaries
4. Play relaxation instructions training tape
5. Pass the attendance sheet around
6. Thank group and dismiss them

Name _____

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Anger Hierarchy

- Instructions: (1) Please read the twenty-five case summaries provided and select the ten child-abuse cases that arouse the most anger in you.
- (2) Divide your anger on a zero to one-hundred scale and assign a case to every tenth value (100 representing the most anger-provoking case).
Indicate your ranking of the ten cases by writing the case numbers beside the anger values shown below.

	<u>Anger Values</u>	<u>Case Number</u>
Most Anger-Provoking Case	100	_____
	90	_____
	80	_____
	70	_____
	60	_____
	50	_____
	40	_____
	30	_____
	20	_____
Least Anger-Provoking Case	10	_____

Case # 1.

A CHILD SUFFERED NUMEROUS FRACTURES
AND MALNOURISHMENT.

Case # 2.

A CHILD WAS BURNED WITH HOT WATER
BECAUSE OF REFRACTURENESS TO TOILET
TRAINING.

Case # 3.

A CHILD SUFFERED ROPE-BURN INJURIES
OF THE FEET AS THE RESULT OF BEING
TIED TO THE BED AT NIGHT WHILE THE
FAMILY WAS OUT.

Case #4.

A 2-YEAR-OLD BOY WAS INVOLVED FOR A PERIOD OF ABOUT SIX MONTHS IN ANAL INTERCOURSE WITH HIS FATHER.

Case #5.

A CHILD SUFFERED ABRASIONS AND LACERATIONS ON THE HEAD AND BACK AS THE RESULT OF A BEATING INFLECTED BY THE FATHER.

Case #6.

A CHILD WAS HIT ON THE FACE AND HAD HAIR PULLED OUT BY THE MOTHER'S BOYFRIEND.

Case #7.

A 2-YEAR-OLD GIRL SUFFERED A LACERATED VAGINA AS THE RESULT OF BEING SEXUALLY ABUSED BY HER FATHER.

Case #8.

A CHILD SUFFERED ABRASIONS ON THE BACK AS THE RESULT OF A BEATING INFLECTED BY HER MOTHER.

Case #9.

A 4-YEAR-OLD GIRL SUFFERED MULTIPLE BRUISES AND FRACTURES OF THE FOURTH, FIFTH, AND SIXTH RIBS ON THE RIGHT SIDE AS THE RESULT OF A BEATING INFLECTED BY THE FATHER.

Case #10.

A CHILD WAS BITTEN ON THE PENIS
WHILE BEING USED DURING ORAL SEXUAL
PLAY WITH THE MOTHER AND HER
BOYFRIEND.

Case #11.

A CHILD WAS BURNED ON THE FEET WITH
CIGARETTES BY ONE OF THE PARENTS AS
A FORM OF DISCIPLINE.

Case #12.

A CHILD WAS BURNED ON THE LEGS, AND
BUTTOCKS WITH HOT WATER BY ONE OF THE
PARENTS AS A FORM OF DISCIPLINE.

Case #13.

A CHILD DIED OF MASSIVE ABDOMINAL
HEMORRHAGES AS THE RESULT OF A
BEATING INFLICTED BY HER MOTHER.

Case #14.

A CHILD WAS BURNED WITH A CHIMNEY
GRATE BY HER MOTHER.

Case #15.

A 7-MONTH-OLD BOY SUFFERED A SKULL
FRACTURE AS THE RESULT OF A BEATING
INFLICTED BY ONE OF THE PARENTS.

Case # 16.

A 2-YEAR-OLD BOY SUFFERED A SKULL FRACTURE AND MULTIPLE FRACTURES OF THE LONG BONES AS THE RESULT OF A BEATING INFLICTED BY ONE OF THE PARENTS.

Case # 17.

AN 18-MONTH-OLD GIRL SUFFERED BRUISING OF THE HEAD, SHOULDERS, TRUNK, AND WRIST AS THE RESULT OF A BEATING INFLICTED BY ONE OF THE PARENTS.

Case # 18.

A CHILD SUFFERED BRUISES ON THE HEAD AS THE RESULT OF A BEATING INFLICTED BY ONE OF THE PARENTS.

Case #19.

A CHILD SUFFERED A WRINGER INJURY OF THE ARM - CAUSED BY TWISTING AND COMPRESSING THE LIMB - AS THE RESULT OF A BEATING INFLICTED BY ONE OF THE PARENTS.

Case #20.

A 9-YEAR-OLD BOY SUFFERED ABRASIONS ON THE HEAD, CHEST, AND ARMS AS THE RESULT OF A BEATING WITH A STRAP INFLICTED BY HIS FATHER.

Case #21.

A 6-YEAR-OLD GIRL SUFFERED ABRASIONS, LACERATIONS, AND SWELLING ON THE BACK, BUTTOCKS, AND LEGS AS THE RESULT OF A BEATING INFLICTED BY ONE OF HER PARENTS.



Case #22.

A CHILD SUFFERED A LACERATED LIVER AND A FRACTURE OF THE HUMERUS AS A RESULT OF THE FATHER KICKING THE CHILD ON MULTIPLE OCCASIONS.

Case #23.

A 1-YEAR-OLD GIRL SUFFERED A FRACTURE OF THE LEFT ARM, THE RIGHT ARM HAVING BEEN FRACTURED EARLIER, BECAUSE THE FATHER, IN AN ATTEMPT TO FEED THE CHILD, HAD FORCIBLY HELD THE CHILD AND ROTATED HER ARMS.

Case #24.

A BOY SUFFERED MULTIPLE RECENT AND NEW FRACTURES OF THE LONG BONES AS THE RESULT OF A BEATING INFLICTED BY ONE OF THE PARENTS.

Case #25.

AN 8-YEAR-OLD GIRL WAS BRUISED AND
BEATEN ON THE BACK BY HER FATHER TO
INSURE DISCIPLINE.

Relaxation Instructions

I am going to teach you how to become very relaxed. In doing this, I am going to ask you to tense up and relax opposing sets of muscles - proceeding through a series of these. That is, I am going to ask you to tense up and relax different sets of muscles so that there is a cumulative effect of relaxation over your whole body.
(Pause 15 sec.)

Okay, now I would like you to take a deep breath and hold it.
(Pause 5 sec.) Hold it. (Pause 5 sec.) Okay, let it out. (Pause 15 sec.)

Raise both of your hands about half way above the floor, and breathe normally. (Pause 10 sec.) Now, drop your hands to the floor. (Pause 15 sec.)

Now, hold your arms out and make a tight fist. Really tight. Feel the tension in your hands. I am going to count to three and when I say "three" I want you to drop your hands. One...two...three. (Pause 15 sec.)

Raise your arms again, and bend your fingers backwards. (Pause 10 sec.) Now drop your hands and relax. (Pause 15 sec.)

Raise your arms. (Pause 10 sec.) Now drop them and relax. (Pause 15 sec.)

Now, raise your arms again, but this time "flap" your hands around.
(Pause 10 sec.) Okay, relax again. (Pause 15 sec.)

Raise your arms again. (Pause 10 sec.) Now relax. (Pause 10 sec.)
(Notice the difference between tensing and relaxing your muscles.)
(Pause 10 sec.)

Raise your arms above the floor again and tense your biceps until they shake. (Pause 5 sec.) Breathe normally, and keep your hands loose. (Pause 5 sec.) Relax your arms. (Pause 10 sec.)
(Notice how you have a warm, soft feeling of relaxation.) (Pause 10 sec.)

Now hold your arms out to your side and tense your biceps. Make sure that you breathe normally. (Pause 5 sec.) (Smooth, even breathing)
(Pause 5 sec.) Relax your arms. (Pause 15 sec.)

Now arch your shoulders back. (Pause 5 sec.) Hold it. Make sure that your arms are relaxed. (Pause 5 sec.) Now relax. (Pause 15 sec.)

Hunch your shoulders forward. (Pause 5 sec.) Hold it, and make sure that you breathe normally and keep your arms relaxed. (Pause 5 sec.) Okay, relax. (Pause 10 sec.)
(Notice the feeling of relief from tensing and relaxing your muscles.)
(Pause 10 sec.)

Now, turn your head to the right and tense your neck. (Pause 5 sec.) Hold it. (Remember to keep the rest of your body relaxed.) (Pause 5 sec.) Okay, relax and allow your head to come back to its natural position. (Pause 15 sec.)

Turn your head to the left and tense your neck. (Pause 5 sec.) (Hold it. Just let your body relax.) (Pause 5 sec.) Relax and bring your head back again to its natural position. (Pause 15 sec.)

Now, bend your head back slightly towards the floor. (Pause 5 sec.) Hold it. (Smooth, even breathing) (Pause 5 sec.) Okay, now bring your head back slowly to its natural position. (Pause 15 sec.)

This time bring your head down almost to your chest. (Pause 5 sec.) Hold it. (Breathe normally.) (Pause 5 sec.) Now relax and let your head come back to its natural resting position. (Pause 10 sec.) (Notice how you are becoming more and more relaxed - feeling relaxation throughout your whole body.) (Pause 10 sec.)

Now open your mouth as much as possible. (Pause 5 sec.) A little wider. (Pause 5 sec.) Okay, relax. (Pause 15 sec.)

Now tense your lips by closing your mouth. (Pause 5 sec.) (Breathe normally.) (Pause 5 sec.) Okay, relax. (Pause 10 sec.) (Notice the feeling of relaxation.) (Pause 10 sec.)

Put your tongue at the roof of your mouth. Press hard. (Pause 10 sec.) Relax and allow your tongue to come to a comfortable position in your mouth. (Pause 15 sec.)

Now put your tongue at the bottom of your mouth. Press down hard. (Pause 10 sec.) Relax and let your tongue come to a comfortable position in your mouth. (Pause 15 sec.)

Now just lay there and relax. Try not to think of anything. (Just let your body relax...and become more and more relaxed.) (Pause 15 sec.)

To control self-verbalizations, I want you to go through the motions of singing a high note - not aloud! Okay, start singing to yourself. (Pause 5 sec.) Hold that note... (pause 5 sec.) and now relax. (Pause 15 sec.)

Now sing a medium note and make your vocal cords tense again. (Pause 10 sec.) Relax. (Pause 15 sec.)

Now sing a low note and make your vocal cords tense again. (Pause 10 sec.) Relax. (Pause 10 sec.) Your vocal apparatus should be relaxed now. Relax your mouth. (Pause 10 sec.)

Now, close your eyes. Squeeze them tight and breathe naturally. (Pause 5 sec.) Notice the tension. (Pause 5 sec.) Now relax. (Pause 10 sec.) Notice how the pain goes away when you relax. (Pause 10 sec.)

Now, let your eyes just lay there and keep your mouth open slightly. (Pause 5 sec.) Smooth, even breathing. (Pause 5 sec.) Notice the warm, soft feeling of relaxation. (Pause 10 sec.)

Open your eyes as much as possible. (Pause 5 sec.) Hold it. (Pause 5 sec.) Now, relax your eyes. (Pause 10 sec.) (Notice how you are becoming more and more relaxed - feeling relaxation throughout your whole body.) (Pause 10 sec.)

Now wrinkle your forehead as much as possible. (Pause 5 sec.) Hold it. (Pause 5 sec.) Okay, relax. (Pause 15 sec.)

Now take a deep breath and hold it. (Pause 10 sec.) Relax. (Pause 15 sec.)

Now, exhale. Breathe all the air out (pause 5 sec.) all of it out. (Pause 5 sec.) Relax. (Pause 10 sec.) Notice the wondrous feeling of breathing again. (Pause 10 sec.)

Imagine that there are weights pulling on all your muscles, making them flaccid and relaxed (pause 5 sec.) pulling your arms and body into the floor. (Pause 5 sec.) (Notice how your muscles now feel. (Pause 5 sec.) They are warm, heavy and relaxed.) (Pause 15 sec.)

Pull your stomach muscles together. (Pause 5 sec.) Tighter. (Pause 5 sec.) Okay, relax. (Pause 15 sec.)

Now extend your muscles as if you were a Karate Fighter. (Pause 5 sec.) Make your stomach hard. (Pause 5 sec.) Relax. (Pause 10 sec.) You are becoming more and more relaxed. (Pause 10 sec.)

Now, tense your buttocks. (Pause 5 sec.) Tighter. (Pause 5 sec.) Hold it. (Pause 5 sec.) Now, relax. (Pause 15 sec.) Just let your body relax (pause 5 sec.) and become more and more relaxed. (Pause 15 sec.)

Now, search the upper part of your body and relax any part that is tense. First the facial muscles (pause 5 sec.) then the vocal muscles (pause 5 sec.). The neck region. (Pause 5 sec.) Your shoulders. (Pause 5 sec.) Relax any part which is tense. (Pause 5 sec.) Now the arms and fingers. (Pause 5 sec.) Relax these. Becoming very relaxed. (Pause 15 sec.)

Maintaining this relaxation, raise both of your legs to about a 45° angle. (Pause 10 sec.) Now relax. (Pause 15 sec.) Notice that this further relaxes you. (Pause 15 sec.)

Now, bend your feet back so that your toes point towards your face. (Pause 5 sec.) Relax your mouth. (Pause 5 sec.) Bend them hard. (Pause 5 sec.) Relax. (Pause 15 sec.)

Bend your feet the other way...away from your body. Not far. (Pause 5 sec.) Notice the tension. (Pause 5 sec.) Okay, relax. (Pause 15 sec.) (Remember to keep the rest of your body relaxed.) (Pause 15 sec.)

Relax. (Pause 15 sec.) Now curl your toes together - as hard as you can. (Pause 5 sec.) Tighter. (Pause 5 sec.) Okay, relax. (Pause 30 sec.)

This completes the formal relaxation procedure. Now explore your body from your feet up. Make sure that every muscle is relaxed - first your toes, (pause 5 sec.) your feet, (pause 5 sec.) your legs, (pause 5 sec.) buttocks, (pause 5 sec.) stomach, (pause 5 sec.) shoulders, (pause 5 sec.) neck, (pause 5 sec.) eyes, (pause 5 sec.) and finally your forehead (pause 5 sec.) - all should be relaxed now. (Pause 15 sec.)

Just lay there and feel very relaxed, noticing the warmth of the relaxation. (Pause 15 sec.) I would like you to stay this way for about one more minute, and then I am going to count to five. When I reach five, I want you to open your eyes feeling very calm and refreshed. (Pause 60 sec.)

Okay, when I count to five, I want you to open your eyes feeling very calm and refreshed. One (pause 5 sec.) feeling very calm; Two (pause 5 sec.) very calm, very refreshed; Three (pause 5 sec.) very refreshed; Four (pause 5 sec.) and Five.

Systematic Desensitization: Session Two Time: 1 hr.

Instructions

1. Play relaxation training tape
2. Proceed with systematic desensitization procedures:
see desensitization instructions
3. Pass the attendance sheet around
4. Thank the group and dismiss them

Desensitization Instructions

1. Show the first slide for 30 seconds and read the first case summary.
 2. Ask the subjects if they feel any anger toward the person who inflicted the injuries. If no anger is indicated,
 - (a) pause for 30 seconds and instruct the subjects to imagine a neutral scene,
 - (b) show the slide again for 30 seconds and read the case summary,
 - (c) ask the subjects if they feel any anger toward the person who inflicted the injuries,
 - (d) if no anger is again indicated, pause for 60 seconds, instruct the subjects to imagine a neutral scene, and show the second slide, etc.
- If anger is indicated,
- (a) pause for 60 seconds, instruct the subjects to imagine a neutral scene, and give them relaxation instructions,
 - (b) show the slide again for 30 seconds and read the case summary,
 - (c) ask the subjects if they feel any anger toward the person who inflicted the injuries,

- (d) if anger is again indicated, present additional relaxation instructions,
- (e) if no anger is indicated, pause for 60 seconds, instruct the subjects to imagine a neutral scene, and show the second slide, etc.

APPENDIX V

Treatment Procedures:
Cognitive Self-Control

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Cognitive Self-Control: Session One Time: 1 hr.

Instructions

1. Introduce yourself
2. Make some general statements about controlling anger using cognitive self-control procedures
3. Discuss: (a) the extent of subjects' anger toward child abusers;
(b) the specific aspects of child abuse that trigger subjects' anger;
(c) the thoughts and self-statements made during the imaginal interviews
4. Play the two training tapes:
 - (a) Rationale for training
 - (b) The functions and regulation of the arousal of anger
5. Direct subjects to tune in and record the self-statements made during any anger episodes that occur within the next 24 hours
6. Take attendance
7. Thank subjects for their participation and dismiss

RATIONALE FOR TRAINING

Human feeling is really a product of, and in some ways a form of, human thinking. The human individual has four basic processes, all of which are indispensable to his behaving adequately and all of which are interconnected:

1) He perceives or senses - that is, sees, tastes, smells, feels, hears. 2) He moves or acts - walks, eats, swims, throws, climbs, and so forth. 3) He feels or emotes - loves, hates, fears, becomes (angry), feels depressed. 4) He reasons or thinks - remembers, imagines, hypothesizes, concludes, solves problems.

Ordinarily, none of these four basic processes is experienced in isolation by the human adult. Take, first of all, perceiving. If a man perceives or senses something (for example, sees an apple), he also tends, at the very same time, to think about it (figure out whether it is suitable food); to have some feelings about it (to desire or not to desire it); and to do something about it (to pick it up or throw it away).

By the same token, if an individual moves or acts (say, he picks up a stick), he also tends to perceive what he is doing (for example, to see and touch the stick); to think about his act (imagine what he might do with this particular kind of stick); and to have some emotion about it (to like it or dislike it).

Again: if anyone thinks about something (for example, about a crossword puzzle), he will simultaneously tend to perceive (see) it; to have feelings about it (react favorably or unfavorably to it); and to move in connection with it (use a pencil to write on it or put aside the page on which it is printed).

Finally: if one emotes about something or some person (say, is angry with another individual), he will also tend to perceive (see, hear, touch) this person; think about him (remember him, figure out how to avoid him); and take some kind of action in regard to him (run from him or punch him in the jaw).

We function, then, as a single organism - perceiving, moving, thinking, and emoting simultaneously and interrelatedly. These four basic processes are not distinctly different ones, each of which begins where the others leave off. Instead, they all significantly overlap and are in some respects aspects of the same thing.

Thus, thinking, aside from consisting of bioelectric changes (which are, of course, motor processes) in the brain, and in addition to consisting of remembering, learning, comparing, and problem-solving, also is - and to some extent has to be - sensory, motor, and emotional behavior.

To recapitulate what we have been saying: Human thinking and emoting are not radically different processes but, at points, significantly overlap. Emoting does not occur in a vacuum, but results from excitation of the brain and nerve pathways, from perceiving and moving, from the influence and the responses to previous emotion, and from thinking.

Sustained emotion, in particular, normally stems from sustained thought. And, since adult human beings usually think in terms of internalized phrases and sentences, or self-talk, they sustain their emotions by talking to themselves or by telling themselves certain kinds of sentences.

In general, negative emotions, such as feelings of anger are intensified and sustained by such self-propagandizing sentences as "This is awful!" "I can't stand that!" And positive emotions, such as joy and elation, are intensified and sustained by sentences such as "This is fine!" or "I like that!" Because this is so, human emotions, such as anger, can often be radically controlled or changed by determining precisely the kind of sentences lying behind them and then by changing these sentences.

THE FUNCTIONS AND REGULATION OF THE AROUSAL
OF ANGER

Anger serves important positive functions in coping with stress. One of the most recognizable functions of anger arousal is that it energizes our behavior. Anger increases the vigor with which we act. This can result in strong motor responses, such as slamming doors or raising the volume of one's voice. This energizing effect can also enable a person to assertively confront provocation or injustice.

However, as an arousal state that raises the amplitude of response systems, anger can have a disruptive effect on behavior. When arousal is high, anger interferes with efficient task performance. Cognitive processes become disorganized, and reactions become impulsive. A child-abusing parent, for example, will be irritated by some behavior of the child, fail to understand the situation in terms of age-appropriate behavior, and over-react with physical force. When people are agitated, they often act before they think. Competence in anger management represents personal effectiveness in dealing with stress situations that require patience, composure, and constructive thought for their resolution.

Anger also serves important expressive or communicative functions. Frustrated expectations lead to smoldering anger, which disrupts intimate relationships. A healthy relationship depends on the ability of partners to express anger and give one another negative feedback. Some problems never reach the discussion stage until one member of the relationship becomes demonstrably angry. Thus, interpersonal problems arise from the manner in which people express their anger or what they do when becoming angry.

Anger arousal also has a self-promotional function. When one is thwarted or stressed, it is often preferable to take the role of an angry, agitated person rather than to be seen as someone who is anxious, apprehensive, or apathetic. The demonstration of anger advertises potency, expressiveness, and determination and can thus be seen as a strategic move to foster and protect one's public image.

The arousal of anger can also be understood in terms of a defensive function whereby anger occurs as a protective reaction to feelings of vulnerability. Anxious feelings of vulnerability are short-circuited or preempted by the arousal of anger. It is less distressing to be angry than to be anxious. Anger externalizes the conflict by directing attention to something that is nonself.

Clinical observations in the interactional arena of psychotherapy have recognized this role of anger. Harry Stack Sullivan remarked on this defensive process. He stated that, "when another person seems annoyed or angry, we are most likely to approach a simple understanding of the situation if we ask ourselves whether what we did had in some way impaired his security, so that anger was called out merely as an avoidance of the anxiety that would otherwise have been aroused... Anger blunts the feelings of personal insecurity."

Closely related to the defensive role of anger is the extent to which it potentiates a sense of personal control or of being in charge of a situation. Anger arousal induces a sense of potency. Thus, anger can be more effectively regulated if one perceives himself or herself as competent to

handle provocation. To the extent that anger arousal directs us toward constructive action and problem resolution, its adaptive value in the potentiating role is transparent. The danger is that anger is sometimes aroused in a blind effort to assert with force. As Rothenberg has stated, "If we think of hitting someone or even killing someone, we feel far more powerful and in control of the situation than if we think of fleeing or doing nothing." Help for anger arousal must therefore impart to the person a set of non-antagonistic skills for coping with provocation.

As an emotional response to provocation, the arousal of anger and the cognitive processes associated with that arousal (i.e., thoughts about the provoking person and the thwarting situation) can instigate aggressive actions. The admixture of agitation, thwarted expectations, and hostile internal dialogue serves as a cumulative stimulus for aggressive behavior. There is a learned connection between anger and aggression. An aggressive act is expected to change the situation or conditions that have provoked anger.

Although the arousal of anger constitutes a state of agitation or tension, awareness of anger can be trained to function as a discriminative cue. Attunement to the signs of anger can alert one to the psychological significance of a situation and serve as a cue to use coping strategies that will be effective in resolving conflict. Thus, people can be trained to use anger as a cue for non-antagonistic coping strategies.

In conclusion, it is important to realize that the ability to manage internal arousal states, such as anger arousal, and to adapt to stress events has become an increasingly necessary psychological skill. Certainly, mental health professionals must recognize the many adaptive functions of anger that can be mobilized in the attainment of treatment goals.

Cognitive Self-Control: Session Two Time: 1 hr.

Instructions

1. Discuss homework assignments of listening to self-statements made during anger episodes
2. Read the two training papers:
 - (a) Elicitors of anger
 - (b) Pattern of anger
3. Distribute printed handouts:
 - (a) Anger management principles
 - (b) Examples of self-statements for various provocation stages
4. Discuss printed handouts
5. Direct students to:
 - (a) make their own self-instructions for use in provocation stages
 - (b) discriminate between situations where anger is justified and situations where anger is harmful
6. Take attendance
7. Thank subjects for their participation and dismiss

Elicitors of Anger

Anger arousal is an emotional response that occurs under certain incentive or stimulus conditions. One broad class of incentive stimuli consists of events that threaten the beliefs or values of the person. The events imply that the person's standards are incorrect or invalid. The affective state labelled as anger, therefore, is not only characterized by physiological arousal but it occurs under certain incentive or stimulus conditions. Threats to one's standards by another person or group is one important incentive condition. In fact, one of the major instigators of anger is threats to dearly-held values.

In a survey study of situations that elicit anger in college students, several different categories of anger-eliciting stimuli were identified. The seven stimulus categories included Stereotypes, Aversive Traits, Put Down or Personal Affrontery, Restricted Role or Options, Pressure Build Up, Self and Self-Behaviour, and Cruelty and Aggression. The Aversive Trait category includes anger elicited by some aversive trait, behaviour, or characteristic in another person. It is one of the most frequently occurring kind of anger-eliciting stimuli. Cruelty and Aggression is another major category of anger-eliciting stimuli identified in the survey study. It includes items of maliciousness, mental or physical cruelty, injury, suffering or aggression. The results of the study show that people have little difficulty identifying the antecedents of their own anger arousal.

In another study, additional evidence was obtained showing that anger arousal occurs in response to specific stimuli. Factor analysis of seventy-six items on a Reaction Inventory, designed to isolate in individuals the specific stimulus situations that result in anger arousal, produced ten different factors. The ten factors identified were minor chance annoyances, destructive people, unnecessary delays, inconsiderate people, self-opinionated people, frustration in business, criticism, major chance annoyances, people being personal, and authority. Thus, the study demonstrated that there are numerous specific stimulus situations which produce anger.

The Pattern of Anger

A close analysis of the pattern of anger shows that it consists of three stages. The first component is the alert signal, which informs the individual of the presence or possibility of threat. The second is a condition of anxiety that mobilizes one's needed defensive energy. The third component involves a desire to attack and thereby eliminate the source of threat. These anger responses are in the realm of emotions. In this emotional phase, the individual has not yet committed himself to any action or behaviour.

Following this emotional phase comes the phase of solution. Here the individual has two basic choices. The first choice is the 'objective-creative' solution, which consists of a realistic evaluation of the threat and a unique response to it. During this process, the individual assesses the intensity and relative significance of a threat and estimates his own capacity to deal with it.

Within this objective framework, the anger response is utilized for the purpose of self-preservation, and as such can be construed as a constructive act. The impressive characteristic of the objective-creative solution is its essential creativity. An individual, by approaching the threat in a state of full consciousness, draws upon all of his resources, the accumulated force of his inherited endowments and the vast reservoir of his particular life experiences. The final result is necessarily unique and explains why human beings are capable of a multitude of reactions to threats, all of which are healthy although differing widely in expression. One 'objective-creative' solution for dealing with anger is to view a provocative experience as a sequence of stages. These stages consist of (a) when possible, being prepared for a provocation; (b) experiencing the confrontation; (c) coping with arousal and agitation; and (d) reflecting on the experience and engaging in self-reward for coping successfully.

The second choice, or "pathological" solution for dealing with threat, has its roots in the faulty perception of ourselves and our world. Our personalities set into motion a predictable ebb and flow of anger and fear, with the anxiety that accompanies them. If our models and experiences have adopted the mechanism of anger in preference to fear, the pathological solution manifests itself in the form of aggressive behaviour. The divergence between anger, which is not an act, and aggression, which is a learned behaviour, becomes clear at this point. Whereas anger is an emotional defense that rises to protect the individual's integrity and does not involve a destructive element, aggression is a negative implementation of that defense which is shaped by specific experiences of the individual and is a learned behaviour quite distinct from his integrity.

1. You can control and contain your anger by staying task oriented - that is, the most important thing to do is stay focused and stick to what must be done in the situation to get the outcome you want. Stay task oriented and issue focused.
2. One of the most important things you must do to control your anger is to recognize the signs of arousal as soon as they occur. As you become more and more sharply tuned to the signs of tension and upset inside you, you will achieve greater ability to short circuit the anger process. Heightened anger makes you agitated and impulsive.
3. Your anger can serve a very useful function and that is it can be an alerting signal for you that you are becoming upset and that effective action is called for, if a positive outcome is to result. Use your anger to work to your advantage. Remember, getting angry makes you agitated and impulsive. Stay task oriented and instruct yourself.
4. When you self-instruct and manage your anger, you are in control of the situation. The best way to take charge of a situation can be not to get angry.
5. As you learn to break down provocation experiences into stages, you will have a better handle on things, which is another way of putting you on top of the situation. You will also learn how to instruct yourself in ways that correspond to these stages.

PREPARING FOR A PROVOCATION:

- What is it that I have to do?
- I can work out a plan to handle this.
- I can manage this situation. I know how to regulate my anger.
- If I find myself getting upset, I'll know what to do.

CONFRONTING THE PROVOCATION:

- As long as I keep my cool, I'm in control here.
- Don't get all bent out of shape; just think of what to do here.
- There is no point in getting angry.
- Don't assume the worst or jump to conclusions. Look for the positives.
- It's really a shame that this person is acting the way (s)he is.

COPING WITH AROUSAL AND AGITATION:

- Getting upset won't help.
- It's just not worth it to get so angry.
- My anger is a signal of what I need to do. Time to talk to myself.
- I can't expect people to act the way I want them to.

SELF REWARD:

- It worked!
- That wasn't as hard as I thought.
- I'm doing better at this all the time.
- I actually got through that without getting angry.

Excerpted from Nevaco, 1975, page 95