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Treatment of Conduct Disordered Adolescents
with Stress Inoculation

by

David B. Rosengren

B.A., Concordia College, Moorhead, Minnesota, 1982

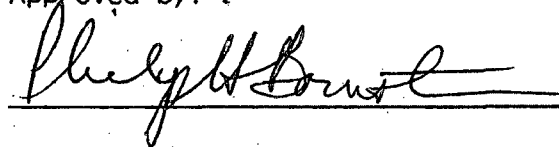
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Master of Arts

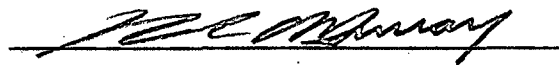
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Psychology

Treatment of Conduct Disordered Adolescents with Stress Inoculation
(114 pp.)

Director: Philip H. Bornstein *PHB*

Research findings increasingly indicate that the personal maladjustment problems of childhood frequently portend adult psychiatric disorders (e.g., Berkowitz, 1962; Bornstein and Kazdin, 1985). This is probably most evident in the area of childhood "conduct disorder" (Bornstein, Schuldberg, & Bornstein, in press).

The treatment of aggressive, conduct disordered youth has unfortunately been quite limited to date. Novaco (1975), however, has developed a stress inoculation (SI), anger control program which appears to hold considerable promise with adult subjects. The purpose of the present investigation was therefore to implement a modified form of the SI package with diagnostically classified, conduct disordered youth ranging in age from 12-17 years.

Eighteen conduct disordered adolescent males were recruited from professional agencies, schools, group homes, youth court and probation services, churches, and newspaper/radio/TV public service announcements. All subjects met criteria derived from the DSM III (APA, 1980) or Achenbach's (1978) Child Behavior Checklist. The therapeutic program was evaluated via a pretest/posttest, between groups experimental design. After completing the pretest, subjects were randomly assigned in equal numbers to an SI or waiting list control condition. The SI met for six weekly 1 1/2 hr. meetings. In addition to the basic Novaco (1975) program, additional components included problem-solving training, weekly handouts, homework assignments, and in session role-play opportunities. Dependent measures included the Adolescent Problems Inventory (Freedman, Rosenthal, Donahue, Schlundt, & McFall, 1978), the Novaco Anger Inventory-Revised (Chong, 1982, 1983), and the Revised Behavior Problem Checklist (Quay & Peterson, 1983). It was hypothesized that the treatment program would reduce the degree of self-reported anger and inappropriate aggressiveness while increasing interpersonal competence and socially appropriate behavior. In general, the data supported these hypotheses. However, several interpretative limitations were noted. Results were analyzed by means of a two-way analysis of variance, and methodological, theoretical, and applied aspects of the findings were discussed.

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I am also indebted to others who gave generously of themselves: Rob Velin, whose computer wizardry and knowledge of statistics may have saved the University the loss of a terminal and me of my hair; Denise Dibb and Charlie Palmer for helping whenever and however asked; Helena Chambers for her golden fingers, expert editing, and short-notice work; the Save the Stack Committee for the ultimate in sublimity; my family for inculcating in me the belief that a person does make a difference and giving me the confidence to try; and Karen Rosengren for giving up much and receiving very little back but insisting that this was important to her: you've taught me much about acceptance and unconditional positive regard.

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TABLE OF CONTENTS

	Page
ABSTRACT	ii
ACKNOWLEDGMENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER ONE - LITERATURE REVIEW	1
Treatment of Anger and Aggression with Adults	3
Systematic Desensitization	4
Operant Interventions	7
Interpersonal Skills Acquisition Approaches	12
Cognitive-Behavioral/Coping Skills Approach	15
Anger and Aggression Control with Adolescents	18
Systematic Desensitization	19
Operant Interventions	19
Interpersonal Skills Acquisition Approaches	25
Cognitive-Behavioral/Coping Skills Interventions	28
Summary Of and Conclusions About Anger Control with Adolescents..	32
Statement of the Problem	35
CHAPTER TWO - METHODS	37
Subjects	37
Setting	38
Procedures	39
Dependent Measures	40
Treatment	46

TABLE OF CONTENTS (continued)

	Page
CHAPTER THREE - RESULTS	55
CHAPTER FOUR - DISCUSSION	61
Objectives	62
General Considerations	67
Future Research Directions	73
REFERENCES	76
APPENDICES	85
A Child Behavior Checklist	85
B Demographics Questionnaire	87
C Novaco Anger Inventory-Revised (NAI-R)	88
D Adolescents Problems Inventory (API)	95
E Revised Behavior Problem Checklist (RBPC)	96
F Weekly Handouts	99
G Anger Diary	105
H Treatment Session Outlines	106
I Mental Relaxation Instructions	112

LIST OF TABLES

Table	Page
1. Demographic Variables of the Eighteen Subjects, Excluding Age Differences	56
2. Significant Correlations Among Dependent Measures	59

LIST OF FIGURES

Figure	Page
1. Interaction effect between group means on the API	57

CHAPTER ONE

LITERATURE REVIEW

The problem of aggression has plagued humankind since time immemorial. Montagu (1976) presents interpretations of data, which are somewhat overstated but nonetheless point to the pervasiveness and continuity of violence. His figures indicate that there have been over 14,600 wars in the 5,600 years of recorded history. This averages out to 2.6 wars per year. Montagu goes on to state that, of the 185 generations that have lived during this time, only ten have known uninterrupted peace. Indeed, this is a disheartening montage of human suffering.

Violence at the individual level appears to be as pervasive as at the societal level. As the overburdened court and penal system seems to indicate, the present system of constraint by socialization, reinforced by legislation, has not been entirely successful (Krisberg & Schwartz, 1983). As a society, we are struggling in an attempt to find new methods for early identification and treatment of these potentially dangerous breakdowns. Research findings are increasingly pointing towards the personal maladjustment problems of childhood as relatively stable and long-term disorders which can portend future criminal behavior, substance abuse, and psychosis (e.g., Berkowitz, 1962; Bornstein & Kazdin, 1985; Bornstein, Schuldberg, & Bornstein, in press; Wolfgang, Figlio, & Sellin, 1972). One of the most impactful

childhood anomalies is the Conduct Disorder, as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM III) (American Psychiatric Association, 1980). This diagnostic category includes a constellation of behaviors which can be summarized as a systematic violation of rules, norms, and basic rights of others. The characteristics of this diagnostic category are often seen first in childhood as disruptive behavior in a variety of situations (Herbert, 1982). The true cost to society, however, is not felt until this child graduates to adolescence and concurrently more deviant and destructive behavior. Agee (1979) recites the societal costs of hostile, aggressive youth. First, they incur a disproportionate amount of those agencies' time, money, and effort whose responsibility it is to treat, educate, and/or help these young people. Second, they hurt and occasionally kill people, as well as harming themselves. Third, they steal and destroy property. Fourth, they are disruptive in homes, schools, agencies, and institutions. Finally, the majority of these youth graduate into the adult institutional system. Needless to say, the cost of allowing these youth to go untreated is devastating to all involved.

Within the diagnostic category of conduct disorder, there are numerous subgroups which by developmental status, age, nature of behavior, etc., are quite disparate and are deserving of separate inquiry and investigation. The part of this constellation which this thesis attempts to address is the control of anger and aggression in adolescents (ages 13-17). Baron's definition (1977) of aggression

will be employed to facilitate discussion of this topic area (i.e., aggression is any form of behavior directed towards the goal of harming or injuring another living being who is motivated to avoid such treatment).

The majority of recent studies on aggression have indicated that anger is often a precursor to aggressive behavior. Increasingly, therefore, the focus of intervention has been on the anger response and its mediating effects on aggressive behavior (e.g., Bornstein, Bellack, & Hersen, 1980; Novaco, 1975). Unfortunately, few of these programs have chosen to focus on adolescents (ages 13-17); rather, they address treatment of anger and aggression with adults, children, or developmentally disabled adults. The programs that have chosen to focus on adolescents have been, in general, broad-based remedial programs that attempt to deal only indirectly with aggression problems (Agee, 1979; Phillips, Wolf, Fixsen, & Bailey, 1976). Given that these represent the current literature available on aggression control, adult programs will be reviewed, followed by an examination of the limited information on adolescent programs. The programs available for children and developmentally disabled adults will not be reviewed as they appear to have limited applicability to the treatment of adolescents.

Treatment of Anger and Aggression with Adults

Bornstein, Weisser, and Balleweg (in press) provide a format for review of the current literature that allows for lucid classification

and perusal; therefore, their system will be employed in this review. The four categories to be presented are: systematic desensitization, operant interventions, interpersonal skills acquisition approaches, and cognitive-behavioral/coping-skills strategies. As Bornstein et al. (in press) point out, this system excludes numerous other therapies including catharsis, psychodynamic, insight oriented, etc. Most of these therapies have not undergone the rigorous testing and validation work necessary to establish their utility or lack thereof.

Systematic Desensitization

The assumption that violent behavior in certain individuals is facilitated by emotional arousal, which is created by the perception of events as aversive, is the premise upon which the employment of systematic desensitization (SD) is based (Bandura, 1973). The belief is that an incompatible response--such as relaxation--precludes the occurrence of emotional arousal. Baron (1977) offers other incompatible responses: empathy with the victim, feelings of amusement, and mild sexual arousal. However, systematic desensitization, with its emphasis on relaxation, has received the lion's share of the research in this area.

The idea that SD can be successfully employed in the control of anger has been evaluated in a number of case studies (e.g., Evans, 1971; Herrel, 1971; Sanders, 1978). These cases involved, respectively, an abusive soldier, a psychiatric patient, and a child-abusing father. In each case, SD was successful in reducing the emotional arousal extant in the individual during imaginal

presentation of situations that previously had produced high levels of arousal. Smith (1973), however, was unable to reduce anger provocation using a standard SD format with a mother who experienced extreme anger reactions to the behavior of her child. When the program was modified to incorporate humor as the competing response, arousal levels were reduced on galvanic skin response (GSR), heart rate, and client and therapist behavioral ratings.

In more controlled experimental investigations, the results have been less consistent. Hearn and Evans (1972) reported significant reductions in student nurses' subjective ratings of arousal to imaginably presented scenes following intervention with SD, relative to a control group. Evans, Hearn, and Saklofske (1973) replicated this study and obtained similar findings. Noteworthy in these studies is that the subjects employed did not represent themselves as having anger control problems. O'Donnell and Worell (1973) attempted to test the essential components of SD. They employed a standard SD, a cognitive desensitization (CD), desensitization without cognitive or motoric relaxation (D), and a no-treatment control condition in an attempt to reduce the anger reported by southern college students (white) towards blacks. The results obtained were inconclusive, being limited by the fact that they were therapist ratings and therefore subject to response bias. They were suggestive, however, of the efficacy of the combined approach.

Rimm, deGroot, Boord, Herman, and Dillow (1971) attempted to treat college students reporting inappropriate and distressing anger

in a single session treatment plan. Subjects were placed in SD, attention-placebo, or no-treatment groups and assessed after a single session. The SD was found to have significantly decreased their GSR, as well as their self-reported anger, relative to the other two groups. There were no group differences on the measure of heart rate. After two weeks, an assessment found only the GSR to differentiate the SD group from the attention-placebo group. No evaluation of the credibility of the latter, coupled with a single treatment session, makes the results obtained tentatively positive. Von Benken (1977) employed a design similar in treatment conditions to the Rimm et al. (1971) study, with the modifications of a nine-week treatment program and a waiting list control group. The results obtained found the SD and attention-placebo condition both showing significant reductions on several self-report measures. The SD group did statistically surpass the other groups on self-report measures of hostility, overall anger, and anger reduction in response to hierarchy items. A three week follow-up produced the same constellation of results. Again, these findings are inconclusive because of the problems inherent in the employment of only subjective ratings (e.g., response bias, demand characteristics) and the lack of information about the credibility of the placebo condition.

Although the case studies have shown significant improvement in anger control using SD, they are limited by their experimental design as to the conclusions that can be drawn. The more empirical investigations have failed to provide conclusive evidence that SD is

any more effective than control conditions in reducing anger. Before any concrete statements about the efficacy of SD can be drawn, however, several methodological weaknesses in the present studies must be addressed: limited assessment devices, credibility of comparison groups, self-selection on the basis of reported anger, and virtually no follow-up data. Bornstein, Hamilton, and McFall (1981) feel the future of SD may lie in reducing the anxiety component which often precedes anger reactions, in the manner of Stress Inoculation (Novaco, 1975), and in enabling the overcontrolled individual to overcome anxiety over appropriate expression of anger rather than as a separate treatment approach as such.

Operant Interventions

Operant interventions are based upon the belief that anger and aggressive responses are learned and/or maintained by a variety of positive, negative, and punishment contingencies. Operating from this assumption, these techniques attempt to intervene in existing contingencies by establishing new consequences for pro-social and aggressive behavior. Generally, this has been done in five operant strategies: extinction, time out (TO), differential reinforcement of other behavior (DRO), combinations of punishment and reinforcement, and overcorrection (OC).

Extinction. Extinction attempts to change the behavior of an individual by removing the reinforcements that are assumed to maintain its occurrence. The studies done in this area have almost exclusively focused on children or developmentally disabled (DD) adults and

therefore fall outside the scope of this study. Nevertheless, the results of these studies have, despite methodological limitations, supported extinction as an effective change agent (Brown & Elliott, 1965; Martin & Foxx, 1973; Pinkston, Reese, Leblanc & Baer, 1973; Russo, 1964; Scott, Burton, & Yarrow, 1967; Williams, 1959). Bandura (1973) qualifies this, however, by stating that extinction may be feasible only for less severe forms of aggression and then when used in conjunction with other positive techniques for increasing pro-social, alternative responses.

Time Out. Initial increases in behavior associated with extinction may be avoided by implementation of an effective time out (TO) procedure. Time out involves the elimination of rewarding stimuli and consequences by removing the offender from the rewarding situation. Again, this research area has been devoted almost entirely to the study of TO with children and DD individuals. Several studies have found TO to be effective when implemented in conjunction with other positively-based procedures (Bostow & Bailey, 1969; Foxx, Foxx, Jones, & Kiely, 1980; Liberman, Marshal, & Burke, 1979; Peniston, 1975; Steffy, Hart, Crow, Torney, & Marlett, 1969). Several problems with TO are evident in reviewing these studies. First, sufficient reinforcement of pro-social behavior must already exist before removal of rewards will be effective. Second, there is a paucity of information as to what is the most effective length of TO for different populations. Finally, despite protests by some authors, TO is still a negatively-based procedure.

Differential Reinforcement of Other Behavior. Differential reinforcement of other behavior (DRO) is a procedure which rewards the individual when a specified behavior has not occurred for a given period of time. Poling and Ryan (1982) refer to it as a response deceleration procedure. DRO, used in combination with TO, has successfully reduced aggressive behavior in a number of studies (Bostow & Bailey, 1969; Edwards, 1974; Vukelich & Hake, 1971). Bornstein, Rychtarik, McFall, Bridgewater, Guthrie, and Anton (1980), using a modified DRO format, significantly reduced the number of observed inmate offenses. The conclusions drawn remain tentative because of the nature of the measure (observed offenses); that is, observed offenses do not necessarily indicate all offenses that occur in a prison setting. The results obtained, however, were significant in the directions intended. Polvinale and Lutzker (1980) significantly reduced the assaultive and inappropriate sexual behavior of a 13-year-old Down's Syndrome male through social restitution and DRO programming. This study was included to illustrate the effectiveness of DRO and indicate that this is another operant procedure that has been primarily studied with child and DD populations. A major weakness of the DRO procedure is that it assumes the aggressor has the ability to emit alternative responses, something the social skills people have questioned.

The Combined Use of Reinforcement and Punishment. Although there have been studies using punishment as the sole treatment strategy (e.g., Hamilton, Stephens, & Allen, 1967), the vast majority of

researchers recognize that punishment is most effective when used in conjunction with positive reinforcement (Azrin & Holz, 1966). The conditions under which more severe punishments are indicated have been delineated elsewhere (Bandura, 1973; Baron, 1977); therefore, this section will review only those studies which employ the more commonly used, milder forms of punishment. For example, Ludwig, Marx, Hill, and Browning (1969) used a combined strategy of shock contingent upon negative actions and positive reinforcement for appropriate behaviors to reduce the assaultive and threatening responses of a schizophrenic female. The results generalized across settings and behaviors.

Response cost is a more specific form of a combined strategy where the subject earns positive reinforcements for appropriate target behaviors and loses positive reinforcements for emission of inappropriate target behaviors. This strategy is most often used in conjunction with a token economy. Winkler (1970), using a response cost in combination with a token economy, demonstrated an ability to reduce the incidence of aggressive behavior by institutionalized schizophrenics. Keitner and Gordon (1976) implemented a program which rewarded prisoners by one-third day off their sentence for each 24 hours they were free of aggressive behavior, while also punishing them for any aggressive infractions by negating any good-time earnings during the previous 30-day interval. Although lack of control or comparison groups make the results open to rival interpretations, significant reductions from pretreatment assessment were obtained.

Several questions remain as to the use and/or appropriateness of punishment as an agent of behavior change. These questions include ethicality with involuntary populations, misuse by punishing agents, temporary suppression vs. actual change, modeling of injurious behavior, increasing likelihood of counter-aggression, and lack of acceptability to mental health professionals (Fehrenbach & Thelen, 1982). Nonetheless, punishment is regarded as a powerful technique when aggressive behavior prevents the occurrence of pro-social actions.

Overcorrection. Overcorrection (OC) was developed by Azrin and his associates (e.g., Foxx & Azrin, 1972; Webster & Azrin, 1972) to circumvent the adverse consequences of traditional punishment procedures. The procedure was designed to be an educative process whereby the aggressor is no longer reinforced for offenses (in this instance, the offense would be aggression). The individual is also required to emit an effort which is aimed at either restitution or positive-practice of an incompatible, pro-social behavior. The rationale of OC is that the aggressor, by performing pro-social actions directly relevant to the offense, learns consequences and responsibility for her/his behavior. OC has been used to reduce the aggressiveness of retarded and brain-damaged adults (Foxx & Azrin, 1972), aggressive adult inpatients with normal intelligence (Sumner, Mueser, Hsu, & Morales, 1974), and aggressive children (Ollendick & Matson, 1978). In spite of impressive validation work, OC is infrequently employed, owing in part to its aversiveness to both

offenders and professionals. Again, the research in this area has been primarily with DD and child populations.

Conclusions about Operant Interventions. Operant interventions have been successful in the reduction of violent and aggressive behaviors, but the conclusions drawn are limited by the bulk of the research being done on children and DD populations and by various methodological flaws. Several of the issues which still need to be addressed in regard to the effectiveness of operant techniques are maintenance of treatment effects, comparative effectiveness of the operant procedures, indications or contra-indications for use of specific procedures with particular clienteles, isolation of the therapeutically-essential elements, and ethical and legal considerations in the use of negatively-based techniques (Bornstein et al., 1984). Bornstein et al. (1981) have reviewed in detail the methodological concerns and future directions for research of operant interventions. The reader is referred to this source for further information and/or elaboration.

Interpersonal Skills Acquisition Approaches

Bandura (1973) has proposed that aggressive people have failed to acquire more socially appropriate responses to the rigors of interpersonal situations. A number of studies have in fact found assaultive behavior to be reliably associated with social skills deficits in a number of populations (Phillips & Zigler, 1961; Reid, Taplin, & Lorber, 1981; Toch, 1969). As a result, treatment strategies have developed which attempt to train the individual either

in assertiveness (e.g., Hersen & Bellack, 1976) or general social skills (e.g., Goldsmith & McFall, 1975) in an effort to allow for appropriate expression of anger and circumvention of aggressive responding to stressful interpersonal situations.

While a variety of social skills treatment (SST) strategies currently exist, they all seem to utilize a combination of the same elements; that is, the client is provided with a reasonable rationale as to why the strategy is effective in handling stressful situations and aggressive behavior. Next, he or she is provided instruction in the mechanics of the techniques to be employed. Then the client observes a model portraying the correct implementation of these techniques. Following this, the client is asked to rehearse the appropriate behaviors. Finally, the client is given immediate feedback about his or her performance in the behavioral rehearsal (Bornstein et al., 1984). These elements have been utilized in programs with college students, prison inmates, and psychiatric patients.

Employing college student in an analogue setting, Rimm, Hill, Brown, and Stuart (1974) and Lehman-Olson (1975) have obtained significant anger reductions in provoking situations with concomitant increases in assertive behaviors. These results are only suggestive due to various methodological shortcomings (e.g., analogue nature of study, lack of behavioral indices).

The reduction of violence in chronic offenders is limited by the multiple factors which contributed to their incarceration and by the

demands of prison life which often require a degree of aggressiveness for survival. Nevertheless, skills acquisition has increasingly been recognized as an essential element of the treatment process for inmates (Toch, 1969). Several studies have been done which are suggestive of the efficacy of this approach but have limited generalization due to methodological difficulties (Gentile, 1977; Gregg, 1976; Keltner, Scharf, & Snell, 1978; Kirchner, Kennedy, & Draguns, 1979).

Bornstein et al. (in press) report a cognitively-based SST program employed in a multiple baseline design with three institutionalized males (ages 25, 38, and 45) who had a history of verbal and physical aggression. Utilizing multiple assessment devices (e.g., self-report, role-play, and behavioral ratings on the ward), Bornstein et al. obtained results indicative of significant changes (in desired directions) on all target behavior. This study is one of the best designed of those reviewed, yet it still fails to answer the question of whether the changes observed are clinically, as well as statistically, significant. In this instance, the authors fail to answer the question as to how many and what type of aggressive incidents are being referred to and what an acceptable level of occurrence is. Obviously, with some aggressive behavior (e.g., physically injurious) zero is the only acceptable level.

Most of the studies with psychiatric inpatients have utilized multiple baseline designs to evaluate the efficacy of the skills acquisition approach. In general, these studies have obtained a

reduction in assaultive, aggressive behavior with a simultaneous increase in socially acceptable responses to provocative situations (Eisler, Hersen, & Miller, 1974; Foy, Eisler, & Pinkston, 1975; Frederiksen, Jenkins, Foy, & Eisler, 1976; Matson & Stephens, 1978; Turner, Hersen, & Bellack, 1978). These findings were found to generalize across settings, situations, and time, but are limited by the anecdotal nature of the findings outside of the hospital setting.

In summarizing the results obtained across all three treatment settings, several methodological shortcomings present problems for clear interpretation of the results. First, the generalization of behavior changes have not been nearly as dramatic or as stable in the natural environment as they have been in the experimental setting. Second, the studies have lacked assessment devices with acceptable concurrent and discriminative validity. Third, the majority of these studies have been multiple baseline and their results, although empirically adequate, need to be tested using larger numbers of subjects. Finally, the results have indicated increases in assertiveness skills, but not always a reduction in aggressive behavior. The tentative conclusion that can be drawn is that these programs have proven to be relatively successful in demonstrating short-term changes in assertive and/or socially skilled, interpersonal behavior.

Cognitive-Behavioral/Coping Skills Approach

In contrast to the aforementioned treatment strategies which emphasize mastery of difficult interpersonal situations, the

cognitive-behavioral/coping skills approach (CB) provides skills which allow for regulation of anger and effectiveness in coping with stressful situations. The design pivots around the idea that anger is often a precursor to aggression and therefore is the logical starting point to work from in reducing aggression--nipping it in the bud, so to speak.

Novaco (1975) has theorized that anger arousal is an emotional response to provocation which has three components: cognitive, behavioral, and somatic-affective. Novaco's program, referred to as stress inoculation, attempts to intervene on all three levels with a special emphasis placed on the role of faulty cognitions. Novaco tested his theory (1975) by comparing the efficacy of cognitive treatment and relaxation training, cognitive training alone, relaxation training alone, and an attention-control group for 34 people with anger control problems. Although not all the results were found to be significant, the results were in the direction predicted by Novaco and the combined treatment was found to be generally more effective than the other three conditions. The cognitive strategy alone was found to have significant reductions on more than half of the assessment devices. This was significantly better than the results obtained by relaxation training alone; from this Novaco inferred that cognitive elements are the more powerful of the two in affecting reduction of anger arousal. Aside from the results obtained, this study is a landmark in this research area because of the precautions taken to assure its methodological soundness:

prescribed, objective criteria for subject selection, appropriate comparison groups, and multiple methods of assessment.

Several other researchers have provided support for the efficacy of cognitive-behavioral strategies. Crain (1978) reduced self-rated anger intensity in women students. Novaco (1977) used stress inoculation to help a depressive inpatient gain control over impulsive, aggressive outbursts. Because of design flaws in the Crain study and the case report nature of Novaco's, generalization of these results is limited. Frederiksen and Rainwater (1979) employed a multi-dimensional CB program with violent inpatients and found it to produce relatively stable results in reducing aggressive behavior at 6 to 48 month follow-ups. The results, however, have limited generalization because of small n size, a subject attrition rate of 50% (at follow-up), and lack of experimental controls for various assessment devices. Other studies have provided additional corroborating evidence with diverse populations (Harvey, Karan, Bhargara, & Morehouse, 1978; LeCroy, 1980; Nomellini & Katz, 1983).

Moon and Eisler (1983) compared the efficacy of stress inoculation, interpersonal skills acquisition, and coping skills/problem-solving approach (as delineated by D'Zurilla & Goldfried, 1971). They argue that the first two, although differing in emphasis as to what is changed, are quite similar in presentation format (i.e., a rationale is given followed by practice and feedback), while the third approach utilizes a different format which purports to provide a more generic program that allows effective coping in all

situations. All three programs did in fact reduce cognitive components of anger but this was accomplished in different ways. The stress inoculation people became less angry while simultaneously becoming more passive in the presence of previously anger-provoking stimuli. The skills training and problem-solving approaches reduced cognitive components of aggressive behavior while also increasing socially-skilled assertive behavior in the presence of anger-provoking stimuli. The interpretation of these results are limited by the use of Psychology 110 students, self-report data as the sole criterion for inclusion as a subject, and lack of behavioral indices and follow-up data.

In general, stress inoculation has been found to be an efficacious approach to treatment of aggression problems. It has suffered through methodological growing pains, and future research should address the problems noted previously. The work by Moon and Eisler (1983) suggests that cognitive-behavioral approaches may need to focus more on the development of active strategies rather than passive withdrawal.

Anger and Aggression Control with Adolescents

The development of treatment strategies for adolescents has lagged behind that of adults and children (less than 13 years of age) but has begun to produce promising areas for intervention. The purely behavioral strategies were the earliest forms of inquiry but their early supremacy has been challenged recently by the rapidly developing

fields of social skills training and cognitive-behavioral programs.

Agee (1979) summed up the current literature by saying:

"It is obvious that the state of the art of treating disturbed youth is in its infancy but we are learning by doing" (p. 15).

Systematic Desensitization

Systematic desensitization has received little attention in the adolescent treatment literature, except as an adjunct as in the case of stress inoculation (Schlichter & Horan, 1981). As a treatment approach, it would appear to have some value in specific situations such as reducing the anger youth often associate with authority figures. The utility of this strategy is a question that needs to be answered by further research.

Operant Interventions

The operant interventions for adolescents will be broken down into those utilizing time out and those involving general contingency management. It should be noted that Patterson and his colleagues have done extensive research in the area of conduct disorder/aggressive behavior with children up to the age of 14. With the majority of this work being done with youngsters 12 and under, this extensive parent training program is not within the parameters of this review. The reader is referred elsewhere for further information (e.g., Wiltz & Patterson, 1974).

Time Out. Time out has been used considerably with adolescent populations and, although effective by itself, it appears to be most

efficacious when used in combination with other positive techniques. Webster (1976) used TO to reduce the number of incidents of aggression and tantrum behavior of a 13-year-old male in a public school setting. The boy was placed in an isolation room contingent upon aggressive incidents. This room contained a desk and chair upon which the boy could do school work and nothing else. The assaultive behavior of the child was reduced from 4.8 aggressive incidents per day to only three over the entire eight week follow-up period.

Burchard and Tyler (1965) used TO and positive reinforcement (for incident-free periods) to decrease the assaultive behavior of a 13-year-old, institutionalized, delinquent male. The positive reinforcement was administered in tokens (for each hour the youth spent out of isolation) which could be exchanged for such things as trips to town, cigarettes, soda, etc. Isolation was invoked whenever "unacceptable" behavior was displayed (unacceptable was defined as ". . . any behavior that would normally require a sanction, verbal or otherwise" (p. 246).

Brown and Tyler (1968) used TO to successfully reduce the power a sixteen-year-old male wielded over the ward he resided on at an institution for delinquent males. His "duke-like" behavior was eliminated by placing him on a contingency whereby any disturbance on the ward resulted in his being placed in isolation for 24 hours. The interpretations possible from this study are limited by its anecdotal nature, what the authors refer to as only "surface changes" in

inappropriate behavior, and failure to provide follow-up data as to the maintenance of changes.

Benjamin, Mazzarins, and Kupfersmid (1983), using various lengths of time out, failed to find support for differential effectiveness, dependent upon longer durations. Instead, they found that the longer the duration of time out, the longer it took the child to "settle down" and begin serving his time out period. Using hospitalized assaultive adolescents (ages 9 to 17), Benjamin et al. found that TO longer than fifteen minutes did not significantly alter the child's general level of aggression. There are several problems with this study, including a high rate of subject mortality, miscommunications between experimenters, lack of follow-up data, and the small number of subjects.

Time out has been successfully employed in a number of studies to reduce aggressive behavior of adolescents. In general, it appears that TO is most effective when used with a positively based procedure in a tightly controlled environment. It should also be noted that time out is not a neutral technique that some proponents claim and, in fact, can be quite aversive, especially for staff who are responsible for placing an angry, assaultive 17-year-old in a time out room.

Contingency Management. The contingency management programs tend to take place in institutional or residential settings where a larger degree of influence can be exerted over the child's environment. There are exceptions, however, to this general rule-of-thumb. Fo and O'Donnel (1974) used a contingency management procedure for juvenile

offenders and youths (aged 11-17, $x = 14$) who were behavior problems in school. The authors employed a buddy system where volunteers (ages 17-65) were recruited and assigned three youths. The youth were assigned to one of four treatment conditions: non-contingent relationship, social approval contingent upon desired behavior, social approval and material reinforcement contingent upon desired behavior, and control. The material reinforcement was a ten dollar monthly allotment to be spent on activities the buddy deemed appropriate. The buddies made reinforcements (including money provided by the program for activities) contingent upon appropriate behavior. The buddies were able to reduce truancy, tardiness, and fighting. Furthermore, instructing buddies in the use of social approval and material reinforcement resulted in increased school attendance in comparison to the other conditions. In a follow-up study, Fo and O'Donnell (1975) found behavior-problem youth had significantly fewer offenses in the year following treatment when compared to a matched control group. They also discovered that youths with prior offenses did better in the buddy system than did matched controls, while those with no previous offenses actually did worse than their matched counterparts. The authors suggest that this effect may be due to the latter being exposed to inappropriate role models (the buddy's other youth) and therefore indicate a need for caution when considering mixing levels of delinquency in groups for treatment. The major shortcoming of these studies is the failure to produce significant changes in academic achievement. The authors suggest that this may be remediated

by focusing contingencies on that area and by including natural mediators (i.e., parents and teachers) as buddies.

In another program outside the institutional or residential setting, McCullough, Huntsinger, and Nay (1977) employed Bandura's reciprocal interaction model to teach an aggressive sixteen-year-old male to control his aggression through an incompatible response strategy. The program was designed to teach the youth to intercede early in the antecedent chain of an explosive episode and thereby change the reinforcements he received from his environment. The interpretation of the results are limited by the case study nature of the data, but it does suggest that self-control training can be effective. The study has several weaknesses beyond the case study nature of the data, including a failure to delineate how the young man was to handle difficult situations (other than talking calmly) and lack of improvement in other areas targeted for change (i.e., studying at school and turning assignments in on time).

There have been several contingency management programs within institutional or residential settings that use token economies or response cost as their primary therapeutic tools (e.g., Burchard, Harig, Miller, & Armour, 1976; Liberman, Ferris, Salgado, & Salgado, 1975; Phillips, 1968). These programs are geared to deal with delinquent behavior in general and to view aggressive behavior as only one element of the constellation of behaviors that are typical of juvenile delinquents. Representative of this treatment approach is Achievement Place, a highly regarded residential treatment facility in

Kansas (e.g., Phillips, 1968; Yule, 1978). Achievement Place is based on a sophisticated token economy system where boys, aged 12 to 15, labeled as pre-delinquent, are taught comprehensive behavioral skills (e.g., making the bed) by teaching parents while learning to participate in self-government (Yule, 1978). Within this context, Phillips (1968) reports the successful reduction of aggressive responding by three residents when fines were given contingent upon aggressive statements. There are several problems inherent in this study (e.g., uncontrolled time factor, no maintenance or generalization reported, degree of actual change vs. temporary suppression); however, it does provide an illustration of how these programs function and some suggestion as to their effectiveness in dealing with aggressive behavior. In general, residential settings have been found to be more effective in dealing with delinquent behavior than have other settings (Burchard, Harig, Miller, & Armour, 1976). No other data is currently available that addresses these facilities' ability to deal with aggression control.

Interpreting the efficacy of the operant programs reviewed is limited by methodological flaws and lack of replication work. In reviewing several studies in this area, Kennedy (1982) noted:

"... Contingency management programs for modifying the aggression in children are powerful methods for short term behavior change in the treatment setting but [they] have not consistently led to maintenance of behavior change or its transfer to other settings" (p. 47).

Interpersonal Skills Acquisition Approaches

The interpersonal skills acquisition approach, or social skill training (SST) as it is more commonly called in professional journals, first appears in the adolescent literature in the early 1970's. Kaufmann and Wagner (1972) developed an individualized SST program, known as BARB, which contained the rudiments of current SST programs (explicated previously). The program's effectiveness was illustrated in a case study of a fourteen-year-old male with an anger control problem. The results were positive, but their interpretation is limited by its case study nature.

In another SST program, thirty ninth-grade students, who had scored in the bottom 20% of their class in assertiveness, were placed in either a SST or control condition to assess the effectiveness of an assertiveness training program (Lee, Hallberg, & Hassard, 1979). No significant differences were noted between experimental and control conditions on self and peer ratings; however, the experimental group did significantly increase their assertiveness on a paper and pencil indice. Besides the weakness of the results obtained, several problems exist in the methodology, including reliance on self-report measures, no behavioral indices, differential subject attrition, and lack of follow-up data.

x Elder, Edelstein, and Narick (1979) utilized SST to teach four adolescent, long-term psychiatric patients appropriate means of interrupting, requesting behavior change, and responding to negative communication, in an attempt to reduce aggressive behavior. The

results were positive: fine rates and seclusion time for inappropriate behavior decreased while generalization to "untreated" situations and functionally similar behavior was noted. At a three-month follow-up, three of the youth were discharged and at nine months were still in the community. Again, several problems are evident that restrict interpretation: inadequate explanation as to why the one youth failed so emphatically, anecdotal nature of follow-up, questionable similarity between the subject population and aggressive adolescent populations in general, and the possibility of a treatment interaction effect (a token economy, a la Achievement Place, was put into effect shortly before the commencement of this study).

Spence and Marzillier (1981) attempted a SST program with 76 adolescent offenders, ranging in age from 10 to 16 years, who were residents in an institutional facility on charges ranging from truancy to arson and assault. The results indicated an increase in specific basic skills, but no increases in complex interaction skills, no differences between experimental and control groups as rated by outside observers on social skills, friendliness, anxiety and employability, and no difference in recidivism rates (except that experimental subjects were less likely to be convicted after being apprehended or, if convicted, to have a negative placement). The implication of these findings, although only speculative, is that rather than helping these adolescents towards a more socially-approved-of lifestyle, they have been taught skills that allow them to be more adept in avoiding punishment for their

anti-social behavior. In light of these findings, the authors suggest that SST's utility may lie as an adjunct in a small group setting or in a preventive context (e.g., as part of the public school curriculum).

In attempting to answer some of the criticisms leveled against previous SST programs, Hazel, Schumaker, Sherman, and Sheldon-Wildgen (1981) developed a system based on logical suppositions regarding what constitutes skills deficits and their impact on youth. They then provided partial support from the current literature for the SST approach. The program which they then developed was impressively supported by anecdotal data but still needs to be tested empirically. It does, however, appear to be a promising area for further research.

In summarizing the present results, several factors need to be considered. Elder et al. (1979) noted the following as serious drawbacks of the previous research. There are few measures of generalization or follow-up in the literature. The researchers frequently fail to specify qualitative aspects of the behavior being treated and/or assessed. As example of this is the use of a Likert scale to represent behavior without stating the criteria for formulating that rating or identifying the functions of the behavior. Researchers have often failed to examine the effects of treatment on the rate of functionally similar behaviors to those targeted for change. The measures employed have not always had acceptable levels of concurrent and discriminant validity. Finally, the subjects employed in these studies have too often been inadequately identified.

In summarizing the current literature for SST with adolescents, Kennedy (1982) states:

"Training aggressive children in adaptive overt behavior has produced promising results, including long term facilitative effects in some individuals. However, considerable inter-individual variation in response to such treatment has led to the development of cognitively based, interpersonal problem-solving interventions as alternative treatment methods" (p. 47).

As shall be seen, these alternative methods have given researchers promising new directions, but have also failed to be the panacea that some had perhaps hoped for.

Cognitive-Behavioral/Coping Skills Interventions

The use of cognitive-behavioral/coping skills interventions with adolescents, especially with anger and aggression control, is of relatively recent origin. Only a handful of studies address this particular population group (i.e., adolescents with anger and aggression control problems) and these have had only limited interpretive value.

Platt, Spivack, Altman, Altman, and Peizer (1974), in doing basic foundation work, studied adolescents' ability to problem solve and found that:

". . . The non-patient adolescent, who may be assumed to be making a satisfactory adaptation to his environment, is an individual who (a) has more readily available a number

of option behaviors that can be called upon when faced with a problem, (b) is more capable of thinking in terms of effective step by step methods of reaching specified goals in interpersonal situations, and (c) is able to see a situation from the perspective of other individuals" (p. 791).

The experimental group in this study was comprised of 33 (12 male and 21 female) recently hospitalized adolescents who were diagnosed primarily as either adjustment reaction or schizophrenia latent types. The control group consisted of 53 (19 male and 34 female) high school sophomores who were drawn from a required English course. The groups were not significantly different in terms of age or SES, but did differ in terms of IQ score, with the control group scoring significantly higher. Platt et al. (1974) did not, however, find significant differences between the two groups on emotional problem-solving, problem recognition, causal thinking, and consequential thinking. This study has several serious flaws, including demand characteristics, lack of behavioral measures, and failure to provide objective raters/scorers.

x Delange, Burton, and Lanham (1981) developed a problem-solving approach (the WISER way) which utilizes social skills training and cognitive techniques to teach impulse control in interpersonal contexts. The acronym WISER represents the following cognitive cues: wait, identify, solutions, evaluate, and reinforce. The cues provide a step-wise system for appropriate and successful resolution of

anger-arousing situations. The program emphasizes coping, not mastery. Delange et al. (1981) report promising results, but they are of an anecdotal nature and therefore the conclusions that can be drawn are limited.

Snyder and White (1979) present a study involving adolescents experiencing difficulty in an "Achievement Place"-type residential operant program. The subjects were 16 young people (9 male and 6 female), aged 14 to 17, who had been admitted for severe behavior problems (e.g., aggression, drug use, criminal activities) and were selected for inclusion because of minimal response to a behavior modification program. When a cognitive self-instruction program was implemented, in addition to the operant regimen, the youths responded (in the following target areas) by reducing class absences, decreasing impulsive behavior including aggressing, and increasing social and self-care tasks. The findings were maintained at a six-week follow-up. There are methodological problems, however, which limit the inference of causality, including possible treatment interaction and/or order effects, possible demand characteristics, and no follow-up of the adolescents' return to the natural environment. The authors tentatively conclude that the results are due to the individuals' newly-acquired ability to self-observe, self-instruct, and self-reinforce. That is, they were able to change the way they were thinking and self-talking about previously aversive and/or aggression-arousing situations. These conclusions need to be tested further.

The final study currently in the literature for this group was done by Schlicter and Horan (1981). The authors placed 38 institutionalized juvenile delinquents (ages 13-18) in one of three groups: stress inoculation (Novaco, 1975), treatment elements, or no-treatment control. The criteria for inclusion in this study included an indefinite period of commitment to the institution, history of verbal and physical aggression, and nomination by two independent youth workers as exhibiting serious anger control problems within the institution. The clear delineation of the subjects used represents an advance over many of the previous studies which had failed to adequately specify the sample population, thereby sparking controversy in some corners as to the effectiveness of treatment strategies (e.g., Jesness, 1977; Shark & Handal, 1977). Of the 38 subjects who started the study, 27 finished (a result of dropouts, runaways, and discharges), leaving ten subjects in the stress inoculation condition, eight in treatment elements, and nine in no-treatment control. Both active treatments reduced anger and aggression on three self-report scales. Only the stress inoculation group, however, exhibited lowered verbal aggression on the role-played provocations test. Of interest is the authors' failure to consider the possible effects which different rates of subject mortality might have had on the results obtained. Also of major import is the lack of changes in institutional behavior ratings, including rates of aggression. The authors suggest that this may be due to the social psychology of the institution which sometimes requires aggression by

the youth for physical and psychological survival, and staff which undermine treatment efforts. Examples of the latter include under-staffing, staff non-cooperation, staff modeling of aggressive behavior, and staff encouragement of competing methods such as ventilation of anger. In summary, Schlicter and Horan did provide results suggestive of possible benefits of the stress inoculation approach but failed to find improvements in crucial areas, specifically institutional behavior ratings (i.e., generalization). No follow-up data was provided.

The interpretation of the results of studies in this area are limited by their small number, their methodological shortcomings, and their lack of success in some instances. Given the recent advances in adult and child research (e.g., Moon & Eisler, 1983; Spirito, Finch, Smith, & Cooley, 1981; Saylor, Benson, & Einhaus, 1985), this area of inquiry will indubitably be a continuing area of research and treatment evaluation. As a current method of treatment, however, the results are only suggestive of the possible benefits.

Summary Of and Conclusions About Anger Control with Adolescents

Before summarizing the results of currently available treatment methods, it should be noted that the milieu therapy approach has been purposely omitted. The reason for this exclusion is that these programs are geared to deal with broader areas of inappropriate behavior. Subsequently, anger and aggression is viewed as only one

area within which the youth has problems that need to be addressed. Also, anger problems are often regarded as symptomatic of other underlying problems that need to be addressed. The present author recognizes the cogent arguments presented by these approaches, yet also views the aggression problem as being the most immediately detrimental to youth and to society and which therefore needs to be addressed first and separately. Based upon this belief, the more broad-based programs are not considered appropriate for inclusion within this review.

The results of the studies that were reviewed reflect what several authors have noted about the field of delinquency research in general. Davidson and Seidman (1974) originally stated--and Redner, Snellman, and Davidson (1983) later updated--that the findings are tentatively encouraging, with limitations due to methodological shortcomings, including: 1) lack of control groups, 2) inadequate baselines, 3) lack of specification of the essential elements of treatments, 4) lack of multiple measures, 5) limited use of unbiased data collectors, and 6) inadequate or non-existent follow-up data. Logan (1972) goes further and states that, of the 100 outcome studies in the treatment literature of convicted young offenders, not one met the ten criteria he set forth as necessary for scientific acceptability. Included in these ten were such things as repeatability of method, employment of appropriate controls, and the use of conventional indices such as reconviction. Furthermore, Logan failed to include such generally recognized criteria as blind

assessment of outcome and evaluation of police awareness of subject's placement in experimental or control conditions. Obviously, the research in the area is still in its infancy, yet it has provided directions for further inquiry and refinement of methods.

Given the prior review, the purpose of the present investigation is to extend the applications of stress inoculation and to ascertain its effectiveness with aggressive youth while addressing some of the previously noted problems in the current literature. The stress inoculation program has been chosen for several reasons. First, it has provided results (Novaco, 1975, 1976, 1977a, 1977b) which suggest that its efficacy with adult populations may be extended to adolescent populations. Second, its only previous application to an adolescent population had several methodological flaws which resulted in findings that cannot be directly interpreted. Third, the population of interest in this study represents a group which has not previously been trained in the Novaco methods. Schlichter and Horan (1981) looked at institutionalized delinquents while this study includes only individuals in residential settings. Fourth, Moon and Eisler (1983) have suggested a need for a more active component in the stress inoculation package, a refinement which this study incorporates.

Several methodological refinements have also been included as a response to the shortcomings of the current literature. A pre-post test, between groups experimental design with waiting list controls will be employed. The subjects will be referred based upon a summary paragraph drawn from the DSM III criteria for Conduct Disorder

(American Psychiatric Association, 1980) and will be screened for inclusion based upon their personal history. The essential elements are clearly specified by Novaco (1975, 1978) and summarized in the Methods section of this paper. Several methods of assessment using multiple measures will be employed. Follow-up data, although not part of the Master's thesis, will be collected six months after the conclusion of treatment.

Statement of the Problem

Based upon the theoretical writings of Novaco (1978, 1979a, 1979b), previous studies, and the methodological additions mentioned above, the following hypotheses have been generated. It is suggested that this program will increase socially appropriate cognitions and behavior in response to provocation, reduce aggressive responding, heighten amenability to existing rehabilitative services, and reduce contact with aggressive role models in lock-up facilities. Furthermore, the program is designed to increase interpersonal competence, thereby eliciting naturally occurring reinforcers and therefore generalizing beyond the original training setting. Consequently, the likelihood of recidivism will be reduced.

From these hypotheses, the following five objectives have been culled: first, to reduce the degree of self-reported anger to provocative circumstances; second, to increase the individual's appropriate and interpersonally competent behavior to provocative circumstances; third, to reduce (and, if possible, to eliminate) the expression of inappropriate aggressive impulses during the course of

treatment; fourth, to raise the general degree of socially appropriate behavior displayed by the individual; fifth, to reduce the number of contacts with authorities (e.g., probation violations, tickets, arrests, lockups, etc.) following treatment. This research is an evaluation of the efficacy of the stress inoculation program. While follow-up data are not part of the requirement for the Master's degree, it will be collected six months after the conclusion of treatment in order to check recidivism rates and thereby address the fifth objective.

CHAPTER TWO

METHODS

Subjects

The population employed in this study consisted of adolescent males, aged 12 to 17. The subjects were recruited through Missoula County Social Services, Missoula County Youth Court, Missoula Youth Homes, Department of Institutions-Aftercare, Western Montana Regional Mental Health Center, local schools and churches, newspaper/radio/TV public service announcements, and an article detailing the program in the local newspaper.

The investigator requested referrals (from the professional agencies) for young males who had exhibited:

"a repetitive and persistent pattern of conduct in which either the basic rights of others or major age-appropriate societal norms or rules are violated.

The conduct is more serious than the ordinary mischief and pranks of children and adolescents" (American Psychiatric Association, 1980, p. 45).

Parents of individuals referred from other sources were asked to complete a telephone screening interview. If the child appeared acceptable (based upon the previously noted statement), the parents were then verbally administered the Child Behavior Checklist (CBC) (Achenbach, 1978) (Appendix A). A score above 70 I on the Aggressive or Delinquent Scale of the CBC was required for inclusion.

From this pool, a total of 32-36 subjects were expected to be drawn. However, the pool size was less accessible than had been expected and a total of 18 subjects were finally accepted after several deadline extensions. The subjects selected met the above guidelines and, in addition:

1. they had a history of inappropriate or dysfunctional anger and/or aggressive behavior;
2. they were expected to retain their present living circumstances for the duration of treatment and assessment.

Setting

For pragmatic purposes, subjects were tested at the Clinical Psychology Center (CPC), on the campus of the University of Montana, for pre-tests and post-tests. A standardized set of assessment instruments, including a Demographics Questionnaire (Appendix B), the Novaco Anger Inventory-Revised (NAI-R) (Appendix C), and the Adolescent Problems Inventory (API) (Appendix D), was given in pamphlet form to each subject. The Revised Behavior Problem Checklist (R-BPC) (Quay & Peterson, 1983) (Appendix E) was distributed at the same time to the primary caregiver to be completed. The R-BPC was completed by the same individual at pre-test and post-test. Follow-up information will be collected following completion of the Master's thesis and will occur six months after the post-treatment testing. At this time, the NAI-R and the R-BPC will be readministered, and recidivism rates will be calculated based upon parent or houseparent report.

Treatment occurred weekly in the group room at the Clinical Psychology Center.

Procedures

Novaco's stress inoculation program (1975) was modified and implemented in a six-week treatment program. The modifications were twofold. First, the semantics of information which the program routinely supplies to its participants were altered and distributed in six Weekly Handouts (Appendix F) to enhance understanding, interest, and usage on the part of the subjects. Second, the program had an increased emphasis on problem-solving skills as a response to Moon and Eisler's (1983) findings that stress inoculation program participants, although less angry, tended to become more passive in the face of provocation.

Treatment was run in a group therapy format and consisted of weekly, one and one-half hour sessions conducted by two male therapists. Both therapists were graduate students in clinical psychology who had previous experience working with aggressive populations and with group therapy formats. Additionally, both therapists were familiar with the stress inoculation program.

The subjects were randomly assigned to either the experimental or control group after completion of the pre-treatment tests. Post-treatment tests were administered to the experimental subjects following the final session while control subjects were tested the next evening. Because of placement outside of the greater Missoula

area, one subject was mailed his post-test assessment packet and completed it under the direct supervision of a houseparent.

Dependent Measures

Several different sources and types of measures were employed in an effort to determine the effectiveness of this program. Measures were administered to the youths and their primary caregiver (i.e., parent, houseparent) at the Clinical Psychology Center. The types of measures included continuous self-report (i.e., the Anger Diary [Appendix G]), paper and pencil self-report, and behavioroid. Due to pragmatic considerations, only the R-BPC, the NAI-R, and recidivism rates will be employed as follow-up measures.

Anger Diary. The Anger Diary is a device Novaco (1975) developed for use with his stress inoculation program. It is a continuous self-report of anger-provoking situations, responses to those situations, and skills applied during responding. It should be filled out on a daily basis with each segment reviewed weekly by the therapist.

The Anger Diary was employed for several purposes during this study. First, it provided a listing of anger-provoking circumstances from which could be selected specific instances for hierarchy items. Second, it provided a record of successful and unsuccessful coping behaviors from which progress in therapy could be charted. Third, it provided a tangible source of reward for treatment efforts. Fourth, it helped focus the individual's attention on how he chose to cope

with situations. Fifth, it provided a daily reminder of the necessity to work on anger control skills.

A potential problem with this device is the failure to either fill it out or to complete it accurately. Primary caregivers were enlisted to deal with this possibility by checking on the daily logging and the adequacy of the completed product. It was made clear to the subjects during the discussion of confidentiality (in the first session) that this was one area where this principle would not apply. In point of fact, it was stated that the primary caregiver would be reviewing the Anger Diary on a regular basis to ensure that it was being completed in an appropriate and timely manner.

Demographic Questionnaire. A short questionnaire designed to provide a fact sheet about the subject's background and current circumstances was administered. This form elicited information about date of birth, parents' current living circumstances, subject's current living circumstances, primary wage earner's occupation and education level, etc. The primary purpose for including this questionnaire was to insure that the groups were equivalent at pre-treatment, as well as providing necessary intake information. The primary wage earner's occupation and education level could also be used as rough estimates of socio-economic status (McBroom, personal communication, May 1, 1985).

Novaco Anger Inventory-Revised. The Novaco Anger Inventory-Revised (NAI-R) developed by Chong (1982, 1983) is designed to be a behavioral assessment of the subject's ability to generate

effective solutions to problematic interpersonal situations. This was done in response to criticism (cf. Rahaim, Lefebvre, & Jenkins, 1980) that the Novaco Anger Inventory measured only the individual's expectations and appraisals, leaving the behavioral response inadequately assessed. This revision was based upon the five steps set forth by Goldfried and D'Zurilla (1969) and resulted in a 17-item scale, derived from the original 90 NAI items.

The revised version of the NAI is in reality a behavioroid measure rather than a behavioral one. However, this does represent an improvement over the original measure. Besides the more behavioral emphasis, the measure was improved by establishing an empirically-derived scoring system utilized by trained judges (Chong, 1983, 1983).

Results of validation work indicate that the NAI-R distinguishes between individuals who score low, medium, and high on the Buss-Durkee Hostility Index (Buss & Durkee, 1957), suggesting that the device has adequate concurrent validity (Chong, 1982). Further work needs to be done regarding both predictive validity and construct validity, although the Goldfried and D'Zurilla (1969) model is designed to incorporate the latter in the development process. The validation work also suggests that the difference in coping behaviors is not one of knowledge, but rather of production.

The interjudge reliability was computed at .92 using the Pearson Product-Moment Correlation. No test-retest reliability is currently

available. Chong (1983) suggests that more validation work is necessary before the utility of the device is firmly established.

Adolescent Problems Inventory. The Adolescent Problems Inventory (Freedman, Rosenthal, Donahue, Schlundt, & McFall, 1978) is described by Freedman et al. as a 44-item behavioral role-play, problem-solving assessment device. This instrument was designed to identify strengths and weaknesses of adolescent boys in dealing with personal and interpersonal problem situations. The individual is given a hypothetical (but plausible), problematic situation to which he responds. This response is then rated by trained judges on a scale ranging from zero (very incompetent) to eight (very competent). The Goldfried and D'Zurilla (1969) guidelines were used for the development of the device and its accompanying rater's manual.

The results of validation work are compelling but as of yet have not been widely applied beyond the original midwestern population. It indicates that the device is capable of discriminating not only between non-delinquent and delinquent adolescents, but also between aggressive and non-aggressive delinquents. Instructional style (i.e., what would you do vs. what is the best possible solution) and test format (i.e., multiple choice vs. free response) were found to affect results obtained. The instruction set for this study was "What would you do?" and the test format was free response.

Inter-rater reliability was extremely high, as measured by the Pearson Product-Moment Correlation ($r = .99$). Reliability of the device was analyzed using a Coefficient Alpha and was also found to be

high (.966). However, Freedman et al. (1978) suggest caution in interpretation of this figure as the use of extreme groups (as were employed in validation work) can cause inflation of this correlation alpha figure and because the device is an inventory rather than a scale, making that particular analysis less appropriate. Still, early results suggest this is a good assessment device.

Revised Behavior Problem Checklist. The Revised Behavior Problem Checklist (RBPC) (Quay & Peterson, 1983) is an 89-item instrument designed to allow parents, teachers, or others with extended contact, to rate children and adolescents on commonly-occurring problems. It has six factor analytically-derived subscales which measure the following constructs: Conduct Disorder (CD), Socialized Aggression (SA), Attention Problems-Immaturity (AP), Anxiety-Withdrawal (AW), Psychotic Behavior (PB), and Motor Excess (ME). The judge is asked to give each child a zero, one, or two on each item, with zero representing no problem or lack of knowledge about the child in this area, one constituting a mild problem, and two indicating a severe problem.

As a relatively new revision, validity work is still being done on this instrument. However, the data currently available (Quay & Peterson, 1983) suggest the revised instrument has adequate concurrent validity with the Behavior Problem Checklist, an instrument with considerable validation work done on it. A study of concurrent validity of the RBPC done by Quay and Peterson (1983) suggests clinical vs. normal children in grades one through six were correctly

classified in 85.5% of the cases. No mention is made of the standard used for comparison. Studies of construct validity with the RBPC, compared to DSM III categories, behavioral observations, peer nominations, and intelligence and achievement suggest adequate to strong construct validity.

Inter-rater reliability ranges from .85 on CD to .52 on the AW. For the two scales of primary interest in this study, the inter-rater reliability is adequate (CD = .85; SA = .75). The test-retest reliability ranges from .83 for AP to .49 for SA. The test-retest reliability for CD is .63. Quay and Peterson (1983) suggest the correlations for the SA are attenuated by the very limited variance of this scale in the samples but should still be interpreted cautiously.

Independent Raters. Three undergraduate students were employed as independent judges of the adequacy of the responses on both the API and the NAI-R. The raters were trained for four to five hours on the use of the respective rater's manuals and were then tested over trials of ten items. After the judges had reached an agreement rate of 70% or better (agreement defined as a score one point either above or below the other score) on four consecutive trials, they were considered to be scoring sufficiently similar to allow independent scoring of the data.

The inter-rater reliabilities for the API and NAI-R were calculated by having the raters overlap on 33% of the sample. Reliability rates, defined as percentage agreement between raters, were 78% pre-test and 79% post-test for the API, and 77% pre-test and

78% post-test for the NAI-R. All were above the 70% agreement figure used as the significance convention within the field.

Treatment

The stress inoculation model is built on the assumption that anger is an affective response and is a result of an imbalance between demands and response capabilities for coping (Novaco, 1979).

Furthermore, the use of the term "stress" implies the extensive consequences possible beyond the experience of an unpleasant emotional state (e.g., deterioration in health, sense of well-being). It also allows a more comprehensive analysis of anger with regard to environmental stressors.

In treatment of anger problems (Novaco refers to it as "proneness to provocation"), stress inoculation is regarded as

" . . . a coping skills therapy. That is, they attempt to develop the client's competence to adapt to stressful events in such a way that stress is reduced and personal goals are achieved" (Novaco, 1979, p. 4).

The treatment process exposes the client to gradually increasing doses of stress, with the increments designed to occur at manageable levels. In this way, the client is "inoculated," that is, learns to cope in a graded fashion with those events that have a high probability of actual occurrence. The essential elements in the treatment process are relaxation training, cognitive restructuring, and graduated practice schedules.

The procedures employed are based upon the notion that the individual's expectations and appraisals in large part determine how he cognitively structures a stressful situation. The corollary to this postulate is that actions in the situation influence how an individual feels. Thus, anger experiences can be evaluated in terms of

"... the events that happen in their lives, how they interpret and experience these events, and how they behave when and after these events occur (Novaco, 1979, p. 8).

The therapist then intervenes at the cognitive and behavioral level in three phases: cognitive preparation, skill acquisition, and application training. Novaco (1975) regards these combined components to be the necessary and sufficient elements of treatment. The aims of these three phases are to provide preventative, regulatory, and executional skills. In other words, these skills are to prevent the occurrence of maladaptive anger, to regulate arousal when it does occur, and to provide techniques for managing the provocation experience when it happens. Novaco (1975) regards the breaking down of the provocation experience into a manageable sequence of components (i.e., staging) as essential for effective intervention.

As previously noted, Moon and Eisler (1983) have criticized the Novaco method for making their subjects more passive in the face of anger-provoking situations. To address this criticism, an active problem-solving element was added to the treatment program.

The session-by-session treatment outlines employed by the therapists are contained in Appendix H. Below are summaries of each of the sessions as they occurred.

Session One. This was an introductory session with some exploration of individual anger problems. The group leader focused on reducing participants' fears by introducing the purpose, methods, goals, and ground rules of the group. The importance of confidentiality was stressed as a prerequisite for trust. The members were then asked to share their reasons for participation. The decision to participate was reinforced as a commitment to the group to be present at all six sessions. The notion of mutuality of goals was stressed to enlist adequate motivation with a difficult population.

After the initial "ice-breaking" and group structuring, the clients' problems with anger were more fully explored. This began with: a) the members sharing the degree to which they believed they had an anger problem, b) the greatest concern they had about their anger problem, and c) how working on this problem would make their lives different. Next, a series of common anger problems was elicited from the group and examined via a situation x person x mode of expression analysis. Then general deficits in anger control were studied by looking at the determinants of anger arousal, that is, the external events, internal processes, and behavioral actions that are common for many anger control problems. The clients were then encouraged to reflect on their personal antecedents and to share these

with the group. The end of the session wrapped up with a summary, the reading aloud of the first handout, and assignment of homework.

The assignments to be completed for the next session were as follows. The Anger Diary was introduced and the clients were asked to complete it daily until the next session. The idea of intermittent checking on recordkeeping in the diary by the primary caregivers was introduced at this point. The participants were also given index cards on which they were to record a series of anger-provoking situations that they had previously experienced and were likely to encounter again (one incident per card). Finally, they were asked to begin tuning in to the private speech they carried on which might be prompting anger reactions.

Session Two. The goals of this session were to solidify learning from the previous session, begin development of the anger hierarchy, and teach relaxation procedures. The session opened with a question period, followed by a review of the previous week's concepts. A review of the homework was then done. Using diary statements, a more refined and extensive review of anger-arousing circumstances was done (this listing was to be used later). Next, the participants were to have been instructed in arranging their index cards (on which anger experiences were to be recorded) in a hierarchy, from the least to the most difficult to manage. However, 100% of the subjects failed to complete this task. These cards were set aside until later in the session.

The clients were instructed in relaxation training exercises, using a cognitive relaxation technique (Appendix I) developed by Miller (1976) based upon the work of Rimm and Masters (1974). After participants were relaxed, the leaders introduced imagery of a quiet, tranquil scene for 30 seconds. Following this, a scene generated from the previous discussion was introduced for fifteen seconds. Coping statements were introduced for an additional fifteen seconds and then the clients were switched back to the tranquil scene for another thirty seconds before opening their eyes. The procedure was then reviewed (with emphasis placed on both the completion and strategy of the hierarchy), the session was summarized, and homework for the following week was introduced.

Assignments for the next session included the following. First, the clients were asked to practice the relaxation techniques at home. Second, they were requested to continue paying attention to their private speech. Third, they were to continue recording in their Anger Diaries.

Session Three. This session introduced the idea of cognitive control of emotions (i.e., Ellis' concepts of A-B-C analysis and its relation to behavior) and, in addition, work was continued on relaxation techniques and cognitive coping with hierarchy scenes. The session began with a solicitation of questions, a review of the last session's content, and a perusal of the homework assignments. From a review of the Anger Diaries available and the previous session, the group was asked to identify each member's primary style of coping with

anger. The discussion then moved in the direction of how thoughts and beliefs, not the provoking events themselves, affect one's feelings and action. Personal choice was emphasized throughout this discussion. An anger example was then chosen from the discussion and Ellis' concept of A-B-C was applied. Disagreement with the B₂'s was modeled and it was shown how this approach could aid in reducing anger arousal. The clients were asked to group analyze a second example. There was also discussion of justified vs. unjustified anger, with illustrations drawn from previous discourse. This was done to reinforce the learning of the Ellisonian model and to recognize the appropriate employment of anger in positive ways.

Following this, the group practiced relaxation training with tranquility imagery. They were then asked to imagine a recently occurring provocation scene using the same procedures as last time, only actively coping from the start of the presentation. The process was then reviewed, as was the session, and was followed by assignment of homework. The homework was the same as that of the last session (i.e., Anger Diary, relaxation training, completing anger hierarchies, and tuning in to self-talk) with the addition now of using the first two individual hierarchy scenes and actively coping from the start of the presentation.

Session Four. This session emphasized recognition of appropriate anger and began the use of coping techniques based upon the idea of "staging" (Novaco, 1975). This session also involved the introduction of an active problem-solving approach, the WISER way (Delange, Burton,

& Lanham, 1981) as a response to Moon and Eisler's (1983) criticism that stress inoculation program participants become passive in the face of provocation situations.

The session began with the same format (i.e., solicitation of questions, review of prior session, and perusal of homework). Emphasis was placed on discussion of encountering hierarchy items in vivo and how these have been handled. Another Anger Diary example was analyzed and modified using the A-B-C approach. Recognition of appropriate anger was stressed with the integration of its physiological and behavioral components. The discussion then moved to exploration and understanding of the feelings of others in the provocation situation. This empathy work was accomplished by role-play as well as by discussion.

The idea of staging was then introduced. That is, anger experiences were broken down from an overwhelming emotional rush into more manageable stages. How to do this in a provocation was then discussed by the group leader, emphasizing the use of self-statements and personal control. The participants were then divided into a pair of groups and asked to practice this same incident using the previously discussed techniques.

Before the role-play was initiated, the WISER way was introduced. This is a problem-solving approach which utilizes social skills training and cognitive techniques to teach impulse control in interpersonal contexts. As mentioned in the previous literature review of this program, the acronym WISER represents the following

cognitive cues: wait, identify, solutions, evaluate, and reinforce. The cues provide a step-wise system for appropriate and successful resolution of anger-arousing situations. The program emphasizes coping, not mastery.

Finally, relaxation training was practiced and followed by the introduction of another individualized anger scene (there was continued resistance to completing the hierarchy). Active coping, using the WISER way, was suggested during this presentation. This process was reviewed, as was the session, followed by the assignment of homework. For this week, homework was continued use of the Anger Diary, relaxation training with the hierarchy cards three and four, and a request to begin practicing these skills in naturally occurring situations.

Session Five. The focus of this session was the teaching of additional coping skills, as well as practicing of previously acquired skills. The format for initiation of the session was the same, with an emphasis on how anger can serve as a signal for what to do in a situation. Behavioral interventions, which include appropriate communication of feelings and staying task oriented, were introduced. Both of these topics were discussed in relation to anger control. They were then role-played by the subjects. The WISER way was also reviewed and practiced.

Finally, relaxation training was practiced with an individualized scene being presented. Active coping, using all the skills now in the individual's repertoire, was suggested. This was reviewed afterwards,

as was the session, followed by the usual homework assignments, with the addition of practicing the newly acquired skills in prescribed situations.

Session Six. The purpose of this session was to review all previously covered materials, emphasizing attention to either those areas which the subjects found particularly problematic or those which the therapist felt had not been sufficiently learned. A final anger arousing scene was presented while using the previously acquired relaxation and coping skills. Role playing was employed for practice of the newly acquired behavioral skills. Finally, the subjects were reminded that this treatment was designed to give only limited exposure to these new skills; therefore, if they wanted to continue to improve their anger management, they needed to continue practicing and refining these skills.

CHAPTER THREE

RESULTS

Eighteen subjects who met all screening criteria were accepted into the study. All 18 subjects completed pre-test and post-treatment assessments. However, one experimental subject was placed in an institutional setting during the course of treatment and was therefore unable to complete the program. Since this subject had completed 5 of the 6 scheduled sessions, his scores were included in the data analysis.

Following random assignment to conditions, a t-test was performed to ascertain age equivalence between groups. Age differences were found to be non-significant ($X_{exp} = 13.89$, $X_{ctl} = 14.11$, $p > .05$). The remaining demographic data is presented in Table 1.

A two-way analysis of variance for repeated measures was employed for analyzing the pre-test to post-test differences. A significant pre-test difference was found between the experimental and control conditions on the Adolescent Problems Inventory (API) [$F(1, 16) = 6.97$, $p < .05$]. There were no significant differences on the other pre-tests ($p > .05$).

The data received from the API revealed no main effects. However, a significant treatment x time interaction [$F(1, 16) = 6.97$, $p < .05$] was found. Examination of Figure 1 reveals that the control subjects were significantly higher at pre-treatment ($p > .05$) than the

Table 1

Demographic Variables of the Eighteen Subjects, Excluding Age Differences

Variable	Experimental	Control
Person(s) most often resided with:		
Parents	6	3
One parent	2	3
One parent and step-parent	1	1
One parent and other	0	1
Other (group home parents)	0	1
The marital status of these people:		
Married and living together	7	5
Married and living apart	1	0
Divorced and living together	0	1
Divorced and living apart	1	3
Occupation of primary provider:		
Professional person	1	2
Manager, proprietor, official	1	3
Clerical, salesperson	1	1
Skilled laborer	6	2
Semi-skilled laborer	0	1
Highest educational level of primary provider:		
College degree and more	2	3
Some college	3	1
High school degree	3	4
Some high school	1	1
Place of current residence:		
Home	7	6
Group home	2	2
Other (foster home)	0	1

experimental subjects. A Newman-Keuls post-hoc comparison did not reveal significant pre-test to post-test differences with either the experimental or control group. However, the trends were in the directions expected; that is, experimental subjects appeared to

benefit from treatment while the control subjects appeared to decrease in competency over time.

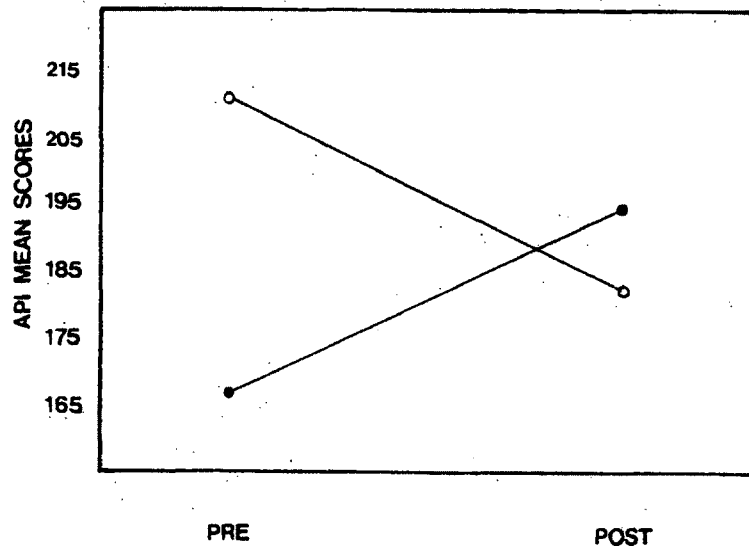


Figure 1. Interaction effect between group means on the API

Legend: CTL

EXP

The analysis of the data from the Novaco Anger Inventory-Revised (NAI-R) revealed a significant main effect for time [$F(1, 16) = 7.73$, $p < .05$]. This suggests that both experimental and control subjects scored significantly better at post-test on their ability to respond to provocation situations in a socially competent fashion; however, a Newman-Keuls post-hoc comparison indicates that only the experimental subjects differed significantly from pre-testing to post-testing. Yet a $X = 3.65$ at post-test on a Likert scale (where 0 = incompetent, 4 = neither competent nor incompetent, and 8 = very competent) indicates

these changes may be statistically but not clinically significant. Also, this information should be tempered by the knowledge that significant interaction effects were not found.

Additional evidence for the efficacy of this treatment approach was obtained from the Revised Behavior Problem Checklist (R-BPC). A significant main effect for time was revealed on the Conduct Disorder (CD) Scale [$F(1, 16) = 5.287, p < .05$]. A Newman-Keuls post-hoc comparison revealed a significant drop in conduct-disordered behavior displayed by experimental subjects at post-test. The Socialized Aggression (SA) Scale also revealed a significant main effect for time [$F(1, 16) = 8.41, p < .05$]. However, a post-hoc comparison did not yield information regarding the sources of this change.

Other significant effects were also evident on the R-BPC. The Attention Problems-Immaturity (AP) Scale indicated a significant main effect for time [$F(1, 16) = 6.79, p < .05$]. Inspection of this effect via the Newman-Keuls revealed a significant change ($p < .05$) between the experimental group's pre- and post-tests. The Anxiety-Withdrawal (AW) Scale revealed both a significant effect for time [$F(1, 16) = 5.07, p < .05$] and an interaction effect between time and group membership [$F(1, 16) = 6.51, p < .05$]. The Newman-Keuls post-hoc comparison indicated that these results were due to the experimental group's post-test being significantly lower than the pre-test, while no significant differences were found between the control subjects' scores. Finally, the Motor Excess (ME) Scale on the R-BPC indicated a significant main effect for time [$F(1, 16) = 5.33, p < .05$]. The

Newman-Keuls post-hoc comparison showed a decrease in pre- to post-test for the experimental group ($p < .05$) and no corresponding drop for the control group. The Psychotic Behavior (PB) Scale on the R-BPC indicated no significant changes ($p > .05$).

The Anger Diary was not analyzed since reporting proved too inconsistent to provide sufficient and/or reliable data. Visual inspection of the data that was available suggested no change.

A correlational matrix was developed to assess for relationships among the various measures. Table 2 lists the significant correlations found among the scales.

Table 2

Significant Correlations Among Dependent Measures

		<u>Measures</u>		Pearson r	Probability
Pre-	Post-	Pre-	Post-		
NAI-R		API		.6327	.002
SA		AP		.6707	.001
ME			API	.4460	.032
NAI-R			NAI-R	.5893	.005
	NAI-R		API	.5016	.017
CD			CD	.7059	.001
AP			AP	.6991	.001
ME			AP	.5012	.017
	NAI-R		AW	-.4453	.032
	NAI-R		PB	-.4186	.042
	CD		AP	.4309	.037
	CD		AW	.4486	.031
	CD		PB	.4828	.021
	CD		ME	.5840	.005
	AW		PB	.4332	.036

As expected, scores on the NAI-R and API were moderately correlated both at pre-testing and post-testing ($r = .6327$, $p < .05$ and $r = .0516$, $p < .05$, respectively). Most of the other correlations were in expected directions and provide relatively straightforward interpretation. For example, the NAI-R was found to have a moderate negative correlation at post-test with the Anxiety-Withdrawal Scale ($r = -.4435$, $p < .05$) and the Psychotic Behavior Scale ($r = -.4186$, $p < .05$), suggesting that individuals who scored high (i.e., competently) in response to provocative situations were unlikely to display withdrawing or psychotic behavior. Among the other results there appears to be one that warrants further attention--specifically, the positive relationship between the pre-test scores on the Motor Excess Scale and the post-test scores on the API ($r = .4460$, $p < .05$). This anomaly does not yield quickly to analysis and is apt to have occurred as a result of chance statistical findings.

Failure to identify relationships between several measures is also of note. In particular, failure of either the NAI-R or the API to correlate (negatively) with either the Conduct Disorder or the Socialized Aggression Scale is different than predicted by the hypotheses. It was expected that as scores on problem solving abilities increased a concomitant decrease of scores on conduct disordered behavior and socialized aggression would occur. Failure to obtain these results might be due to the small n , an incorrect prediction or insensitivity of present measures to the hypothesized relationship. Since significant changes were noted on three of these four measures, the latter two conjectures appear more plausible.

CHAPTER FOUR

DISCUSSION

Results of the present investigation generally supported the objectives derived from the experimental hypotheses. As predicted, the NAI-R and R-BPC revealed improvement in experimental subjects' ability to competently handle a provocation situation. The results of the API suggest that there was a degree of generalization to other problematic situations. The CD scale indicated a decrease in ". . . aggressive, non-compliant, quarrelsome, interpersonally alienated, acting-out behavior" (Quay & Peterson, 1983, p. 9). The R-BPC also indicated some decrease in socialized aggressive (SA) responding (" . . . the unbridled aggressiveness and interpersonal alienation of CD are not present" [Quay & Peterson, 1983, p. 9]), although the nature of this change proved difficult to localize. In the latter case, the trends were in the direction expected. However, it should be borne in mind that many of the conclusions drawn throughout this text are based upon post-hoc comparisons rather than upon statistically significant interaction effects.

The findings also suggested that individuals were less anxious and depressed, and more likely to confront difficult situations rather than withdraw (AW Scale). Also, once in this situation, they were more likely to attend to important stimuli and to act in a deliberate, goal-directed manner (AP and ME Scales). The results obtained can perhaps be regarded as more impressive given the small n the

investigator was forced to employ; however, the question of statistical versus clinical significance remains problematic. Normative comparison of these scores are hampered by the interim level of development of the R-BPC. Generally, the post-test scores obtained are one or more standard deviations above the group means for a "normal" population.

The information yielded by the correlation matrix was limited. Moderate in strength, the correlations were generally in the directions expected, helping to support the hypothesis that these measures assess different but related facets of angry, adolescent behavior. Failure to obtain significant correlations between both the NAI-R and API and either the Conduct Disorder or the Socialized Aggression Scale was opposite of the relationships predicted by the investigator. This failure may have related to the limited strength of the results obtained. An alternative hypothesis is that these measures may be assessing mutually exclusive dimensions, a viewpoint contradictory to current conceptualizations of the diagnostic category of conduct disorder.

In the following pages, each of the objectives will be discussed in detail, followed by an analysis of general considerations and refinements of the current program, and concluding with a look towards future research directions.

Objectives

The first objective discussed was to reduce the degree of self-reported anger to provocative circumstances. The Anger Diary,

designed to serve this purpose, proved to be too unreliable to produce data that was amenable to statistical or visual analysis. Informal review of the data that was available suggested only limited changes in the degree of anger experienced. Observation of the subjects, both within the therapy room and before and after the sessions, suggests that while some of these young men were still experiencing difficulty in modulating their anger response, others had displayed some improvement. Discussion with parents confirmed these mixed results. However, none of these anecdotal methods provides an answer to the substantive question of whether the subjects experience a decrease in self-reported anger. An attempt to remedy this situation was addressed in the treatment of the waiting list group by asking the subjects to complete the diaries immediately before the treatment session; that is, they were asked to complete the Anger Diary upon arrival at the Clinic. This did result in some increase in reporting; however, the problems associated with retroactive self-reported data were increased and, overall, this approach did not appear to greatly enhance the information yielded. Furthermore, it also eliminated one technique conceptualized as encouraging generalization from the therapy room to daily lives. It seems appropriate to add that refinements in the methods of the Anger Diary are necessary before further use with adolescents can be justified.

The second objective of this investigation was to increase the individual's appropriate and interpersonally-competent behavior in response to provocation. The results of the NAI-R support the

hypothesis that the stress inoculation package is capable of providing skills which will enhance the individual's ability to respond to situations in a more competent fashion. Subjects in the experimental condition scored significantly better than did those in the control condition at post-test. However, inspection of the mean revealed that subjects were still not responding in a manner indicative of competence. In defense of these findings, it can be argued that these subjects are now less likely to escalate provocation situations and this represents a clear advance over their prior behavior.

The appropriateness of the behavior is closely related operationally to the conceptualization of competent behavior. That is, individuals who respond to a situation in either a competent or a non-escalating manner are generally regarded as acting in an appropriate fashion. Certainly, increasing competent and assertive behavior is the goal of this program but, given the lifestyles and previous behavior patterns of these individuals, obtaining a halt in destructive behaviors has to be regarded as success. Furthermore, it should be noted that the purpose of this program was simply to provide skills in a brief therapy format.

Along similar lines, it was hypothesized that a decrease in angry behavior would increase these individuals' amenability to other treatment methods. Further treatment could potentially enhance the results found. Unfortunately, no mechanism was available for directly testing this hypothesis, so this remains as conjecture.

The third objective was to reduce and, if possible, eliminate the expression of inappropriate aggressive impulses during the course of treatment. The CD and SA Scales of the R-BPC, along with the Anger Diary, were regarded as the primary sources for assessing the attainment of this objective. The CD Scale revealed a decrease in the conduct-disordered behavior (i.e., acting out behavior associated with the DSM III diagnostic category of Conduct Disorder [American Psychiatric Association, 1980]). However, the SA Scale did not indicate if the reduction in aggression observed was limited to the experimental group, although the statistical trend suggested this. The failure to find a more significant trend within this scale may reflect that these individuals, although more in control of their behavior, are still rejecting authority and the norms of larger society, a dimension that this scale is more geared to assess than is the CD Scale.

The Anger Diaries, when available, revealed a pattern of continued aggressive responding, although the relationship of this to previous levels of behavior remains unknown. Discussions with parents and observations of the subjects indicated that, although some diminution had occurred with specific individuals, there continued to be serious incidents of aggression displayed overall.

In some cases, exploration of the nature of the aggressive responding revealed that this behavior was not entirely expressive in nature and, in fact, served many instrumental needs, self-esteem and status with peers perhaps being foremost among them. In general, the

accomplishment of the third objective may be regarded as insufficient to warrant immediate subscription to this approach. However, there were enough significantly positive results to suggest that further refinement might provide more clinically important results.

Obviously, with this population, only a base rate of near zero aggressive behavior is acceptable.

The fourth objective was to raise the general degree of socially appropriate behavior. In this instance, the devices incorporated to measure this objective provided mixed results. The CD Scale suggested decreases in behavior that are regarded as conduct-disordered and therefore inappropriate. However, this does not necessarily equate with changes toward positive behavior. Analysis of the API failed to confirm positive changes in competent and appropriate behavior. In fact, the API yielded significantly higher scores on the control group's pre-test when compared to the experimental pre-test. Post-test scores were also lower, although not significantly so. The trend, however, was for an increase in positive coping behaviors by the experimental group (while the control group declined in this realm) as reflected in mean scores moving from the incompetent range at pre-test ($X = 3.80$) to the competent at post-test ($X = 4.42$). The latter point would meet one of the initial criterion for clinical significance set by Jacobson, Follette, and Revenstorff (1984).

Explanation of the high pre-test score by the control group remains problematic. It is possible that these subjects were responding to the questionnaire as they thought they should behave (at

pre-test) rather than how they would behave. This explanation seems unlikely, however, given that the same instructions were administered to all subjects. The general trend toward reduction observed at post-test could suggest that the pre-test score was a rare event that occurred by chance and the subsequent trend represented a regression toward the mean. Alternative explanations suffer from similar plausibility problems.

In general, it can be concluded that, although significant changes did occur in the area of negative behavior, only limited amounts of corresponding positive increases were noted outside of those situations specifically oriented towards provocation. The failure of these results to generalize more strongly to other problematic situations certainly warrants further research attention.

The fifth and final objective was to reduce contact with authorities following treatment. This objective is designed to be tested at follow-up and therefore that data is not available at this time.

General Considerations

The results of this investigation are suggestive of stress inoculation's possible utility. There is evidence for some impact by the package on angry adolescents who exhibit conduct-disordered behavior. However, the implementation of this program in its present form with other adolescents requires further refinement.

One variable that proved problematic within this investigation was the "voluntary" nature of the subjects' participation. In almost

all cases, these subjects were either induced or coerced into participation by parents, group home parents, or probation officers. This occurred despite efforts by the investigator to ensure that all parties involved were informed of the right of subjects to participate freely and to withdraw at any point. One parent and each subject were required to sign an Informed Consent which acknowledged that they understood this right. Only one participant (a member of the control group) chose to exercise this option and withdraw during the course of the program. This does not necessarily condemn the voluntary nature of the subjects' participation, but the most frequently-voiced reason for participating was external pressure from some authority figure. The degree to which this affected the results is unclear. Speculation based upon behavior within the therapy room suggests that this probably served to reduce the commitment of some individuals to the group and thereby proved to be a disruptive and consequently suppressive factor in the outcome of the results.

Along similar lines, the disruptive nature of some group members' participation and the general inability of this population to stay "on task" served to illustrate clearly that this treatment package cannot be implemented in a straightforward, prepackaged manner. Considerable knowledge of group dynamics, the developmental needs of adolescents, the particular needs of this population, and considerable facility with the stress inoculation approach is necessary. For example, this investigator believes it would be inappropriate for someone in a group home to attempt to implement this program unless he or she had

received prior training in group dynamics and the theoretical ideas behind the stress inoculation package. The process is likened to that of riding a bull: it takes considerable experience, involves flowing instead of trying to overpower, and not getting gored by the horns (i.e., power and control issues).

Control and power issues were extant throughout treatment. This proved to be one of the most difficult areas to address. A great deal of group time and effort was spent in attempting to redirect inappropriate, testing-of-the-limits behavior without breaking down the group process. The primary approach to this in both groups was to attempt to process these struggles (i.e., point out behavior and discuss why it might have occurred) and note the effect they had on both the individual's and the group's attempts to work on problem areas.

Through treatment of both the experimental and the control groups, it became apparent that a six-week program was an insufficient length of time to develop the group process, dealing especially with control and individual responsibility issues, and cover the program in sufficient depth. It also became apparent that repetition is a requirement for this population. They are not able to grasp and/or retain the ideas presented without repeated presentation and practice. Of course, this repetition needs to be incorporated in such a manner that antagonism is not incurred. Use of the older or quicker learners as facilitators of the process was invaluable in this regard.

Informal analysis of how the group reacted to certain elements (and their ability to recall these later) suggests that some components of the program may be more effective than others. The more abstract ideas presented in the cognitive preparation phase of the program need to be incorporated into a more coherent and easily understood format for adolescents. Attempts to do this through handouts and informal discussion by the investigator seemed to provide a measure of progress, but further revision is necessary. Acronyms proved helpful in this endeavor as they provided more concrete and easily recalled cues (e.g., WISER, PICK).

Attempts to develop individual hierarchies for use with the relaxation exercises were unsuccessful. Development of a group hierarchy, although less satisfactory from a theoretical vantage point, proved more successful when used in the waiting list control's treatment. Similarly, homework generally was not completed. This may have been one of the reasons why generalization proved difficult. Solutions to this problem are not clear, except that an increase in the number of the group meetings with a concomitant increase in commitment may serve to enhance motivation in this area. An alternative may be to refocus efforts on role-plays within the group, utilizing more opportunities with more diverse focuses. Role-plays were generally well received by the group members and provided an outlet for their excessive energy, as well as an opportunity for appropriate attention-seeking behavior. Active participation in this

process by the group leaders is required (i.e., controlling and directing the action as needed).

In general, the program seemed to be useful with this population, although the aforementioned modifications appear to warrant consideration in future applications. One area that was not addressed within this program but where a need is apparent is altering the home environment. Several parents expressed interest in learning the stress inoculation concepts and asked if a group for parents would be offered. Discussions of home life by the subjects suggested that angry, aggressive behavior was often modeled or encouraged by parents. An example of this was the one subject in the experimental group who seemed to deteriorate during the course of treatment. Discussion with this subject's mother at the post-test assessment revealed that this young man had been experiencing difficulty at school with an older adolescent and his father had been encouraging him to "stand up for himself" by punching the kid. Three fights later, this subject was facing charges in youth court and possible placement in a group home. His father was furious with him and was threatening to beat him up if he did not shape up. The mother also revealed that the father had previously been physically abusive towards this young man. Other fathers expressed the sentiment that their son "has" to be able to stand up for himself and that violence is sometimes necessary to do that. The criteria for judicious application of force for these individuals seemed fuzzy at best and extremely liberal at worst. On the reverse side of this situation, more than one parent said that

they never became angry and failed to see any positive value in learning to express anger. These illustrations point out both a possible etiological and maintaining factor for the aggressive behavior, and the necessity of impacting the home environment if meaningful change is to occur.

The age differences within this group proved to be burdensome. Due to limitations in population size, a decision was made to include subjects who were between the ages of 12 and 17. Developmental and maturity differences between the older and younger subjects proved to be a distractive element to treatment progress. Issues were different for the different age groups. The age difference was also exploited by older members; a pecking order was clearly established early on in the group. There was also concern that younger subjects would identify with the inappropriate behavior of the older participants. Observations of this were infrequent; however, some aggressive responding from the younger subjects appeared to be aimed at establishing recognition from older members. Future applications should strongly consider breaking the treatment down into groups with members aged 12-14 and 14-17 (with placement of 14-year-olds based upon their perceived physical and emotional maturity levels).

A final area which was not directly addressed by this study was the "positive" peer interaction exhibited by the subjects. Aggressive "horseplay" was common both outside the therapy room (before and after sessions) and within the sessions. Examples of this included wrestling each other into the snow, "mock" karate fights, and swearing

at one another. Observation of this behavior suggests that it serves many purposes including affiliation, establishment and maintenance of power hierarchies, an outlet for physical energies, and a means for indirectly expressing anger. As the group progressed, it became clearer that this horseplay was often a prelude to more aggressive behavior, although all parties involved denied this relationship. Inclusion of this behavior as an area of work in future programs seems advisable.

Future Research Directions

Although several programs are available for treatment of angry, aggressive adolescents, few have been tested with sufficient scientific rigor to establish their utility. Those that have met recognized criteria have had difficulty establishing clinical significance apart from or in addition to statistical significance. The present investigation has begun to address some of these problems but, like other studies, has had difficulty establishing its efficacy apart from statistical analyses. Need for an efficacious and cost-efficient treatment program is enormous and this study has suggested the utility of the stress inoculation model towards that end. However, further investigations with increased methodological refinement are necessary before any claim to clinical utility is declared with this particular population.

A replication of the present investigation with a larger n and an increased length of treatment seems an appropriate first step. As mentioned previously, the small n in the present study may have served

to suppress the results obtained. A lengthened program would allow for increased practice in the concepts and skills taught and, in addition, would allow sufficient time for trust issues to be worked through. Conjecture based upon this experience suggests that 12 sessions would be an adequate program length. A more representative sample of the general conduct-disordered population would also enhance generalization of the results. Differential effects of subjects' voluntary versus involuntary participation could be included as an additional variable.

Analysis of the effect of the various treatment elements would be an essential second step in further investigation. The previous section noted several informal observations about the efficacy of the different treatment elements. It seems reasonable to assume that different elements may be more or less effective with a conduct-disorder population; finding the appropriate "mix" would greatly enhance the model's utility. This could be accomplished through either a dismantling or a parametric strategy.

A third direction for further research within this area would be more active inclusion of parents in the treatment process. One approach would be to hold parent's groups while the adolescents were meeting. This program could provide the same basic skills and concepts as the adolescent group, as well as providing support for parents with difficult teenagers. It would also allow a more accessible back-up source for incorporating generalization techniques. This parent group might meet on a weekly or biweekly basis.

A fourth area of consideration for further research is refinement of the methodological tools employed. More finely tuned assessment instruments, including use of videotaped behavioral role-plays judged by independent raters, would increase the confidence of consumers in the conclusions drawn. It also is important for the future researcher to include assessment elements that would support the clinical significance of the techniques employed. Jacobson, Follette, and Revenstorf (1983) provide several examples of this type of methodological consideration.

Investigation within this area should be given high priority. Increasingly, the long-term effects of allowing these individuals to go untreated is being recognized but research efforts have continued to lag behind the need. This is an extremely demanding, underserved population and, unfortunately, only limited numbers of new clinicians are interested in investing time and effort in their treatment. If we do not reverse this trend, it seems almost certain that serious long-term consequences will be incurred by society.

REFERENCES

- Achenbach, T. M. (1978). The child behavior profile: I. Boys aged 6 through 11. Journal of Consulting and Clinical Psychology, 46, 478-488.
- Agee, V. L. (1979). Treatment of the violent incorrigible adolescent. Lexington, MA: Lexington Books.
- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D. C.: Author.
- Azrin, N. H., & Holz, W. C. (1966). Punishment. In W. K. Honig (Ed.), Operant behavior: Areas of research and application. New York: Appleton.
- Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, NJ: Prentice Hall.
- Baron, R. A. (1977). Human aggression. New York: Plenum.
- Benjamin, R., Mazzarins, H., & Kupfersmid, J. (1983). The effect of time out (TO) duration on assaultiveness in psychiatrically hospitalized children. Aggressive Behavior, 9, 21-27.
- Berkowitz, L. (1962). Aggression: A social psychological analysis. New York: McGraw Hill.
- Bornstein, M., Bellack, A. A., & Hersen, M. (1980). Social skills training for highly aggressive children. Behavior Modification, 4, 173-186.
- Bornstein, P. H., Hamilton, S. B., & McFall, M. E. (1981). Adult aggression: Assessment and modification via behavioral intervention strategies. In M. Hersen, R. Eisler, & R. Miller (Eds.), Progress in behavior modification. New York: Academic Press.
- Bornstein, P. H., & Kazdin, A. E. (Eds.). (1985). Handbook of clinical behavior therapy with children. Homewood, IL: Dorsey.
- Bornstein, P. H., Rychtarik, R. G., McFall, M. E., Bridgewater, C. A., Guthrie, L., & Anton, B. (1980). Behaviorally-specific report cards and self-determined reinforcements: A multiple baseline analysis of inmate offenses. Behavior Modification, 4, 71-81.
- Bornstein, P. H., Schuldberg, D., & Bornstein, M. T. (In press). Conduct disorders. In V. B. Hasselt & M. Hersen (Eds.), The handbook of adolescent psychology. New York: Pergamon.

- Bornstein, P. H., Weisser, C. E., & Balleweg, B. J. (In press). Behavioral approaches to the assessment and treatment of anger and violent behavior. In M. Hersen & A. Bellack (Eds.), Handbook of clinical behavior therapy with adults. New York: Plenum.
- Bostow, D., & Bailey, J. (1969). Modification of severe disruptive and aggressive behavior using brief time out and reinforcement procedures. Journal of Applied Behavior Analysis, 2, 31-37.
- Brown, G. D., & Tyler, V. O. (1968). Time out from reinforcement: A technique for dethroning the "duke" of an institutionalized delinquent group. Journal of Child Psychology and Psychiatry, 9, 203-211.
- Burchard, J. D., & Tyler, V. O. (1965). The modification of delinquent behavior through operant conditioning. Behavior Research and Therapy, 2, 245-250.
- Burchard, J. D., Harig, P. T., Miller, R. B., & Armour, J. (1976). New strategies in community-based intervention. In E. Ribes-Inesta, & A. Bandura (Eds.), Analysis of delinquency and aggression. Hillsdale, NJ: Erlbaum Associates, Inc.
- Buss, A. H., & Durkee, A. (1956). An inventory for assessing different kinds of hostility. Journal of Consulting Psychology, 21, 343-348.
- Chong, H. (1982). Assessing effective behavior in anger-provoking situations: An application of the behavioral-analytic model. Unpublished master's thesis, University of Montana, Missoula.
- Chong, H. (1983). Behavioral-analytic assessment of anger: A validation study. Unpublished doctoral dissertation, University of Montana, Missoula.
- Crain, D. R. (1978). Awareness of and modification of anger problems (Doctoral dissertation, University of California at Los Angeles, 1977). Dissertation Abstracts International, 38, 3870 B.
- DeLange, J. M., Barton, J. A., & Lanham, S. L. (1981). The WISER way: A cognitive-behavioral model for group social skills training with juvenile delinquents. Social Work with Groups, 4, 37-48.
- D'Zurilla, T., & Goldfried, M. (1971). Modification of anger and behavior. Journal of Applied Behavior Analysis, 4, 107-126.
- Edwards, K. A. (1974). Physical punishment and anger in therapy. Psychological Record, 24, 1-10.

- Eisler, R., Hersen, M., & Miller, P. (1974). Shaping components of assertive behavior with instructions and feedback. American Journal of Psychiatry, 131, 1344-1347.
- Elder, J. P., Edelstein, B. A., & Narick, N. M. (1979). Adolescent psychiatric patients: Modifying aggressive behavior with social skills training. Behavior Modification, 3, 161-178.
- Evans, D. R. (1971). Specific aggression, arousal, and reciprocal inhibition therapy. Western Psychologist, 1, 125-130.
- Evans, D. R., Hearn, M. T., & Saklofske, P. (1973). Anger, arousal, and systematic desensitization. Psychological Reports, 32, 625-626.
- Fehrenbach, P., & Thelen, M. (1982). The treatment of aggressive disorder: the Journal of Applied Behavior Analysis, 6, 465-497.
- Fo, W. S., & O'Donnell, C. R. (1974). Relationship and contingency conditions in a program for youth with non-professionals. Journal of Consulting and Clinical Psychology, 42, 163-169.
- Fo, W. S., & O'Donnell, C. R. (1975). The buddy system: Effect of community intervention on delinquent offenses. Behavior Therapy, 6, 522-524.
- Foxx, C., Foxx, R., Jones, J., & Kiely, D. (1980). Twenty-four hour social isolation: A program for reducing the aggressive behavior of psychotic-like retarded adults. Behavior Modification 4, 130-144.
- Foxx, R., & Azrin, N. (1972). Restitution: A method of eliminating aggressive-disruptive behaviors of retarded and brain-damaged patients. Behavior Research and Therapy, 10, 15-27.
- Foy, D., Eisler, R., & Pinkston, S. (1975). Modeled assertion in a case of explosive rages. Journal of Behavior Therapy and Experimental Psychiatry, 6, 135-137.
- Frederiksen, L., Jenkins, J., Foy, D., & Eisler, R. (1976). Social skills training to modify abusive verbal outbursts in adults. Journal of Applied Behavior Analysis, 9, 117-125.
- Frederiksen, L. W., & Rainwater, N. (1979, March). Explosive behavior: A skill development approach to treatment. Paper presented at the 11th Annual Banff International Conference on Behavior Modification, Banff, Canada.

- Hersen, M., & Bellack, A. S. (1976). A multiple baseline analysis of social-skills training in chronic schizophrenics. Journal of Applied Behavior Analysis, 9, 239-245.
- Jacobson, N. S., Follette, W. C., & Revenstorff, D. (1984). Psychotherapy outcome research: Methods for reporting variability and evaluating clinical significance. Behavior Therapy, 15, 336-352.
- Kaufmann, L. M., & Wagner, B. R. (1972). Barb: A systematic treatment technology for temper control disorders. Behavior Therapy, 3, 84-90.
- Keltner, A., & Gordon, A. (1976). The functional analysis of a reinforcer in a prison population. Corrective and Social Psychiatry and Journal of Behavior Technology, Methods and Therapy, 22, 42-44.
- Kennedy, R. F. (1982). Cognitive-behavioral approaches to the modification of aggressive behavior in children. School Psychology Review, 11, 47-55.
- Kirc
Draguns, J. (1979). Assertion and
enders. Behavior Therapy, 10, 452-471.
- Kris
(1983). Rethinking juvenile justice.
29, 333-364.
- LeCr
rn). Self-instructional anger control for
abuse. Paper presented at the 14th Annual
-Convention of the Association for Advancement of Behavior
Therapy, New York.
- Lee, D. Y., Hallberg, E. T., & Hassard, H. V. (1979). Effects of
assertion training on aggressive behavior of adolescents. Journal
of Counseling Psychology, 26, 459-461.
- Lehman-Olson, P. (1975). Cognitive-behavioral approaches to the
reduction of anger and aggression (Doctoral dissertation,
Oklahoma State University, 1974). Dissertation Abstracts
International, 35, 5118B-5519B.
- Lieberman, R. P., Ferris, C., Salgado, P., & Salgado, J. (1975).
Replication of the Achievement Place model in California. Journal
of Applied Behavior Analysis, 8, 287-299.
- Lieberman, R. R., Marshall, B. D., & Burke, K. (1979, March). Drug and
environmental interventions for aggressive psychiatric patients.
Paper presented at the Tenth Annual Banff International
Conference on Behavior Modification, Banff, Canada.

- Ludwig, A. M., Marx, A. J., Hill, P. A., & Browning, R. M. (1969). The control of behavior through faradic shock. Journal of Nervous and Mental Disease, 148, 624-637.
- Martin, P. L., & Foxx, R. M. (1973). Victim control of the aggression of an institutionalized retardate. Journal of Behavior Therapy and Experimental Psychiatry, 4, 161-165.
- McCullough, J. P., Huntsinger, G. M., & Nay, W. R. (1977). Self-control treatment of aggression in a 16-year-old male. Journal of Consulting and Clinical Psychology, 45, 322-331.
- Montagu, A. (1976). The nature of human aggression. New York: Oxford Press.
- Moon, J. R., & Eisler, R. M. (1983). Anger control: An experimental comparison of three behavioral treatments. Behavior Therapy, 14, 493-505.
- Nomellini, S., & Katz, R. C. (1983). Effects of anger control training on abusive parents. Cognitive Therapy and Research, 7, 57-68.
- Novaco, R. W. (1975). Anger control: The development of an experimental treatment. Lexington, MA: Lexington Books.
- Novaco, R. W. (1976). Treatment of chronic anger through cognitive and relaxation controls. Journal of Consulting and Clinical Psychology, 44, 681.
- Novaco, R. W. (1977a). A stress inoculation approach to anger management in the training of law enforcement officers. American Journal of Community Psychology, 5, 327-346.
- Novaco, R. W. (1977b). Stress inoculation: A cognitive therapy for anger and its application to a case of depression. Journal of Consulting and Clinical Psychology, 45, 600-608.
- Novaco, R. W. (1979a). Therapist manual for stress inoculation training: Therapeutic interventions for anger problems. Unpublished manuscript, University of California-Irvine.
- Novaco, R. W. (1979b). The cognitive regulation of anger and stress. In P. C. Kendall & S. D. Hollon (Eds.), Cognitive-behavioral interventions: Theory, research, and procedures. New York: Academic Press.
- O'Donnell, C. R., & Worell, L. (1973). Motor and cognitive relaxation in the desensitization of anger. Behavior Research and Therapy, 11, 473-481.

- Ollendick, T. H., & Matson, J. L. (1978). Overcorrection: An overview. Behavior Therapy, 9, 83-84.
- Peniston, E. (1975). Reducing problem behaviors in the severely and profoundly retarded. Journal of Behavior Therapy, 6, 295-299.
- Phillips, E. L. (1968). Achievement Place: Token reinforcement procedures in a homestyle rehabilitation setting for "pre-delinquent" boys. Journal of Applied Behavior Analysis, 1, 213-223.
- Phillips, E. L., Wolf, M. M., Fixsen, D. L., & Bailey, J. S. (1976). The Achievement Place model. In E. Ribes-Inesta & A. Bandura (Eds.), Analysis of delinquency and aggression. Hillsdale, NJ: Erlbaum Associates, Inc.
- Phillips, L. & Zigler, E. (1961). Social competence: The action thought parameter and vicariousness in normal and pathological behaviors. Journal of Abnormal and Social Psychology, 63, 137-146.
- Platt, J. J., Spivack, G., Altman, N., Altman, D., & Peizer, S. B. (1974). Adolescent problem-solving thinking. Journal of Consulting and Clinical Psychology, 42, 787-793.
- Pinkston, E. M., Reese, N. M., LeBlanc, J. M., & Baer, D. M. (1973). Independent control of a pre-school child's aggression and peer interaction by contingent teacher attention. Journal of Applied Behavior Analysis, 6, 115-124.
- Poling, A., & Ryan, C. (1982). Differential reinforcement-of-other behavior schedules: Therapeutic applications. Behavior Modification, 6, 3-21.
- Polvinale, R. A., & Lutzker, J. R. (1980). Elimination of assaultive and inappropriate sexual behavior by reinforcement and social restitution. Mental Retardation, 18, 27-30.
- Quay, H. C., & Peterson, D. R. (1983). Interim manual for the Revised Behavior Problem Checklist (1st Ed.). University of Miami, Coral Gables, Florida.
- Rahaim, S., Lefebvre, C., & Jenkins, J. O. (1980). The effects of social skills training on behavioral and cognitive components of anger management. Journal of Behavior Therapy and Experimental Psychiatry, 11, 308.
- Reid, J. B., Taplin, P. S., & Lorber, R. (1981). A social interactional approach to the treatment of abusive families. Proceedings of the 1978 Banff International Conference on Behavior Modification, Banff, Canada.

- Rimm, D. C., & Masters, J. C. (1974). Behavior therapy: Techniques and empirical findings. New York: Academic Press.
- Rimm, D. C., deGroot, J. C., Boord, P., Herman, J., & Dillon, P. V. (1971). Systematic desensitization of an anger response. Behavior Research and Therapy, 9, 273-280.
- Rimm, D. C., Hill, G. A., Brown, N. N., & Stuart, J. E. (1974). Group-assertiveness training in treatment of expression of inappropriate anger. Psychological Reports, 34, 791-798.
- Russo, S. (1964). Adaptations in behavioral therapy with children. Behaviour Research and Therapy, 2, 43-47.
- Sanders, R. W. (1978). Systematic desensitization in the treatment of child abuse. American Journal of Psychiatry, 135, 483-484.
- Saylor, C., Benson, B., & Einhaus, L. (1985). Evaluation of an anger management program for aggressive boys in inpatient treatment. Journal of Child and Adolescent Psychology, 2, 5-15.
- Schlichter, K. J., & Horan, J. J. (1981). Effects of stress inoculation on the anger and aggression management skills of institutionalized juvenile delinquents. Cognitive Therapy and Research, 5, 359-365.
- Scott, P. M., Burton, R. V., & Yarrow, M. R. (1967). Social reinforcement under natural conditions. Child Development, 38, 53-63.
- Smith, R. E. (1973). The use of humor in the counter-conditioning of anger responses: A case study. Behavior Therapy, 4, 576-580.
- Snyder, J., & White, M. (1978). The use of cognitive self-instruction in the treatment of behaviorally disturbed adolescents. Behavior Therapy, 10, 227-235.
- Spence, S. H., & Marziller, J. S. (1981). Social skills training with adolescent male offenders. II. Short-term, long-term and generalization effects. Behaviour Research and Therapy, 19, 349-368.
- Spirito, A., Finch, A. J., Jr., Smith, T. L., & Colley, W. H. (1981). Stress inoculation for anger and anxiety control: A case study with an emotionally disturbed boy. Journal of Clinical Child Psychology, 10, 67-70.
- Steffy, R. A., Hart, J., Crow, M., Torney, D., & Marlett, N. (1969). Operant behavior modification techniques applied to severely regressed and aggressive patients. Canadian Psychiatric Association Journal, 14, 59-67.

- Sumner, J. G., Meuser, S. T., Hsu, L., & Morales, R. G. (1974). Overcorrection treatment for radical reduction of aggressive-disruptive behavior in institutionalized mental patients. Psychological Reports, 35, 655-662.
- Toch, H. (1969). Violent men. Chicago: Aldine.
- Turner, S. M., Hersen, M., & Bellack, A. S. (1978). Social skills training to teach prosocial behaviors in an organically impaired and retarded patient. Journal of Behavior Therapy and Experimental Psychiatry, 9, 253-258.
- Von Benken, E. A. (1977). Clinical reduction of anger and aggression by systematic desensitization: The relation of anger to fear (Doctoral dissertation, University of Cincinnati, 1977). Dissertation Abstracts International, 38, 2388B-2389B.
- Vukelich, R., & Hake, D. F. (1971). Reduction of dangerously aggressive behavior in a severely retarded resident through a combination of positive reinforcement procedures. Journal of Applied Behavior Analysis, 4, 215-225.
- Webster, D. R., & Azrin, N. H. (1973). Required relaxation: A method of inhibiting agitative-disruptive behavior of retardates. Behaviour Research and Therapy, 11, 67-78.
- Webster, R. E. (1976). A time-out procedure in a public school setting. Psychology in the Schools, 13, 72-76.
- Williams, C. D. (1959). The elimination of tantrum behavior by extinction procedures. Journal of Abnormal and Social Psychology, 59, 259.
- Wiltz, N. A., & Patterson, G. R. (1974). An evaluation of parent training procedures designed to alter inappropriate aggressive behavior of boys. Behavior Therapy, 5, 215-221.
- Winkler, R. C. (1970). Management of chronic psychiatric patients by a token reinforcement system. Journal of Applied Behavior Analysis, 3, 47-55.
- Wolfgang, M. W., Figlio, R., & Sellin, T. (1972). Delinquency in a birth cohort. Chicago: University of Chicago Press.
- Yule, W. (1978). Behavioural treatment of children and adolescents with conduct disorders. In L. A. Hersov & M. Berger (Eds.), Aggression and anti-social behavior in childhood and adolescence. Oxford: Pergamon Press.

APPENDIX A

CHILD BEHAVIOR CHECKLIST

I am going to list a series of items that often describe young people. I want you to consider these items in relation to the child's behavior now or within the past six months. Please decide if the item is: 0) never true, 1) somewhat or sometimes true, or 3) very true or often true.

Aggressive

- | | | | | |
|-----|---|---|---|---|
| 1. | 0 | 1 | 2 | Argues a lot |
| 2. | 0 | 1 | 2 | Can't sit still, restless, or hyperactive |
| 3. | 0 | 1 | 2 | Cruelty, bullying, or meanness to others |
| 4. | 0 | 1 | 2 | Demands a lot of attention |
| 5. | 0 | 1 | 2 | Difficulty following directions |
| 6. | 0 | 1 | 2 | Easily jealous |
| 7. | 0 | 1 | 2 | Feels others are out to get him |
| 8. | 0 | 1 | 2 | Gets in many fights |
| 9. | 0 | 1 | 2 | Impulsive or acts without thinking |
| 10. | 0 | 1 | 2 | Nervous, high strung, or tense |
| 11. | 0 | 1 | 2 | Physically attacks people |
| 12. | 0 | 1 | 2 | Screams a lot |
| 13. | 0 | 1 | 2 | Stubborn, sullen, or irritable |
| 14. | 0 | 1 | 2 | Sudden change in moods or feelings |
| 15. | 0 | 1 | 2 | Sulks a lot |
| 16. | 0 | 1 | 2 | Suspicious |
| 17. | 0 | 1 | 2 | Swearing or obscene language |
| 18. | 0 | 1 | 2 | Talks too much |
| 19. | 0 | 1 | 2 | Teases a lot |
| 20. | 0 | 1 | 2 | Temper tantrums or hot temper |
| 21. | 0 | 1 | 2 | Threatens people |
| 22. | 0 | 1 | 2 | Unusually loud |

Cut off - 22

Score _____

Hostile, Withdrawn

- | | | | | |
|----|---|---|---|--|
| 1. | 0 | 1 | 2 | Acts too young for his age |
| 2. | 0 | 1 | 2 | Complains of loneliness |
| 3. | 0 | 1 | 2 | Destroys his own things |
| 4. | 0 | 1 | 2 | Destroys property belonging to others |
| 5. | 0 | 1 | 2 | Doesn't get along with other pupils |
| 6. | 0 | 1 | 2 | Feels or complains that no one loves him |
| 7. | 0 | 1 | 2 | Feels others are out to get him |

(continued)

Appendix A - Child Behavior Checklist - Page 2

8.	0	1	2	Gets in many fights
9.	0	1	2	Gets teased a lot
10.	0	1	2	Not liked by other pupils
11.	0	1	2	Poorly co-ordinated or clumsy
12.	0	1	2	Prefers being with younger children
13.	0	1	2	Withdrawn, doesn't get involved with others

Cut-off - 9

Score _____

Delinquent

1.	0	1	2	Destroys his own things
2.	0	1	2	Destroys property belonging to others
3.	0	1	2	Disobedient at school
4.	0	1	2	Hangs around with others who get in trouble
5.	0	1	2	Lying or cheating
6.	0	1	2	Poor school work
7.	0	1	2	Disrupts class discipline
8.	0	1	2	Messy work
9.	0	1	2	Feels hurt when criticized
10.	0	1	2	Steals
11.	0	1	2	Truancy or unexplained absence
12.	0	1	2	Overly anxious to please

Cut off - 8

Score _____

APPENDIX B

DEMOGRAPHICS QUESTIONNAIRE

NAME: _____

AGE: _____ DATE OF BIRTH: _____

RACE: _____ GRADE IN SCHOOL: _____

Check one of the following:

The people I have most often lived with are (please pick one):

1. Both parents
 2. One parent
 3. One parent and step-parent
 4. One parent and other (please specify) _____
 5. Other (please specify) _____

During my stay in this household, these people were (please pick one):

1. Married and living together
 2. Married and living apart
 3. Divorced and living together
 4. Divorced and living apart
 5. Other (please specify) _____

In the place where I lived most often, the person who provides most of the money in the household works as (please pick one):

1. Professional person
 2. Manager, proprietor, or official
 3. Clerical, salesperson
 4. Skilled laborer
 5. Semi-skilled laborer
 6. Unskilled laborer

The highest education level for this person is (please pick one):

1. College degree and more
 2. Some college
 3. High school degree
 4. Some high school
 5. Finished grade school
 6. Some grade school

I currently am living (please pick one):

1. At home
 2. At a group home
 3. Other (please specify) _____

INTERVIEW NOTES:

APPENDIX C

NOVACO ANGER INVENTORY-REVISED (NAI-R)

Below you will find a series of 44 items describing situations which have been found to be problematic for most young people. It is important that you respond to each situation as you think you actually would behave if placed in those circumstances. Please answer each item in the space provided, making sure to complete all items.

1. You're visiting your aunt in another part of town, and you don't know any of the guys your age there. You're walking along her street, and some guy is walking toward you. He is about your size. As he is about to pass you, he deliberately bumps into you, and you nearly lose your balance. What do you say or do now?
2. Now what if he had done the same thing, bumped into you, and you nearly lost your balance, and this time he said, "Look where you're going, clumsy!" What do you say or do now?
3. Your gym teacher is a nasty guy, and you think he must have it in for you, because he's always picking on you. Today he's been on your back all period, and you've already had to do 50 extra pushups. You're so tired you don't think you can do another one, but all the guys are standing around, watching what will happen. Now he says to you, "OK, sissy, let's see 30 more, and get some energy into them!" What do you say or do now?
4. You're driving around with a good friend on a hot, muggy summer night, and he says, "Whew, am I thirsty! I could really use a cold beer. Listen, I know a guy who sells it, to anyone who comes, right off his front porch, and he doesn't even check ID. How about our going over that way and getting some booze?" What do you say or do now?
5. It's 7:30 on a Saturday night, and you ask your father if you can go out driving around with the guys. He says no, and is angry. He yells, "Nothing doing! You know what happens when you go driving around with those guys. You can stay home tonight and watch television with the family!" What do you say or do now?
6. You've been going steady with a chick named Mary for about three months. It used to be a lot of fun to be with her, but lately it's been sort of a drag. There are some other girls you'd like to go out with now. You decide to break up with Mary, but you know she will be very upset and angry with you. She may even tell lies about you to the other girls, and that could hurt your chances with them. How will you go about breaking up with her gently? What will you say to her?

7. You've been hassling a young substitute teacher all week, and all week she's been sending you up to the principal's office. It's sort of fun, because it's so easy to make her lose her cool. You are up at the principal's office again, and he meets you at the door, and says, "This is the third time this week you've been sent up here! I'm suspending you from school! What do you have to say about that?" What do you say or do now?
8. Your father has been hassling you for months about getting home by midnight, and sometimes that's a problem, because none of your friends have to be home before 1 a.m., and you feel like an idiot, always leaving places early. One night you walk in at 1:30 a.m., and your father is sitting in the living room in his slippers and robe, looking mad. He says, "Where the hell have you been? Do you have any idea what time it is? Or don't you kids know how to tell time any more?" What do you say or do now?
9. You're playing basketball in the school yard, and some guy you don't know well is standing on the sidelines. He starts taunting you, calling you names, and making fun of the way you play. He says, "Hey, look at the tub of lard. He looks like a ball of pizza dough!" What do you say or do now?
10. You walk into the kitchen one morning before school, wearing a T-shirt and jeans, and your mother takes one look at your clothes and says, "Oh no! You're not going out of this house one more time looking like that! You march yourself right up those stairs and get on some decent things, or you're not going anywhere this morning, young man! Do you think your father ever looked like that?" What do you say or do now?
11. One of your friends does some dealing on the street. Once in a while, he even gives you some pills or something for free. Now he says to you, "Listen man, I've got to deliver some stuff on the south side, but I can't do it myself. How about it--will you take this stuff down there for me in your car? I'll give you some new stuff to try plus \$25 besides, for half an hour's driving. Will you help me out?" What do you say or do now?
12. It's 1:30 at night, and you're walking along a street near your home. You're on your way home from your friend's home, and you know it's after curfew in your town. You weren't doing anything wrong. You just lost track of time. You see a patrol car cruising along the street and you feel scared, because you know you can get into trouble for breaking curfew. Sure enough, the car stops next to you, the policeman gets out, and he says, "You there, put your hands on the car. Stand with your feet apart." What do you say or do now?

13. You and your friend Al want to go driving around one evening, but when you tell your father where you are planning to go, he gets very angry. He says, "I don't want you hanging around with that kid. He's no good for himself and he's no good for you. You're not going out of this room if you plan to meet him." What do you say or do now?
14. You're walking through the school yard one day, and a boy you don't know very well calls you over to him. He smiles and says, "Hey man, I've got five dollars. Your ma doing anything tonight?" What do you say or do now?
15. You're browsing in a discount department store with a friend. You're in the sporting goods section. You look around and notice that the glass case where they keep hand guns is open, and the guns are just lying there, where you can reach in and grab them out. There's nobody in sight, no customers and no employees. Your friend says, "Quick man, let's get some." What do you say or do now?
16. You're backing your car out of the driveway, and your friend is in the front seat with you. He tells you a joke, and you look at him and laugh, and the next thing you know, you've backed into your neighbor's empty garbage can and dented it. He's a grouchy old man and he's never liked you much. Now he bursts out of his front door, waving his fists, and yells, "You no-good punk! Always tearing around in that stupid convertible! Now look what you've done!" What do you say or do now?
17. One of your friends really likes a girl named Debbie, but they're not going steady. You think she's pretty nice yourself. You went out with her Saturday night and you both had a real good time. Someone must have told your friend because he comes running up to you in the school yard and says, "You dirty cheating bum! Bill just told me about you and Debbie. I'm gonna knock your ugly face in!" What do you say or do now?
18. Your friend calls on a Sunday night to ask if you want to get together with him and some other friends. You tell him you've been grounded because you got home after curfew the weekend before. He says, "So what's the big deal? Just sneak out the back door and meet me in the next block. Your parents will never know you've gone." What do you say or do now?
19. You've been arguing with your father for a long time over how long your hair is, and tonight he's set for a show-down. He is at the front door as you come in, and he says to you, "You look like a goddam hippie. I've had it with you. No son of mine is going to walk around looking like that. Either you get a haircut or you don't come back here for dinner tonight!" What do you say or do now?

20. You're sitting at home watching TV one weekday night. Your parents were there with you before, but they're out now. There's a knock on the door. You answer it. A big, burly policeman is standing there. He says, "(S's name)?" What do you say or do now?
21. Someone in school has recently been defacing the walls of the boy's room by writing obscene words all over them in black paint. Mr. Redford, a teacher in school, has always had it in for you. Today he calls you out of your class, and says to you in the hall, "OK, young man, we know you're the one who wrote all over the walls in the john. I recognize your writing. Didn't you even have the brains to disguise your writing?" You know you didn't do it and you're furious because he's accusing you. What do you say or do now?
22. You're walking along a side street with a friend, and he stops in front of a '72 Malibu. He looks inside and then he says excitedly, "Look man, the keys are still in this machine! Let's see what she can do. Come on, let's go!" What do you say or do now?
23. You're about an hour late getting to your part-time job in a supermarket because your car ran out of gas. You feel pretty dumb about that and you know your boss will be mad, because this is the busiest time of the day in the store. You punch in at the time clock and he comes storming over to you and says, "You're fired! I've put up with you kids being late and not coming in one time too many. Starting with you, anyone who comes in late gets canned!" What do you say or do now?
24. It's Saturday night and your parents are staying home. You ask your father for the car so you can drive to your buddy's house on the other side of town. Your father says no, that your friend can come over in his own car, to pick you up. He says, "You kids think you can do just what you want when you want! You always want the car on Saturday night but never on Sunday morning when I wash it! You don't take any responsibility around here for anything. You're just a lazy, selfish kid! You've always had things given to you. You've never had to work for anything." What do you say or do now?
25. You have a part-time job as a stock clerk in a discount store and one of your friends has been after you to steal him a battery for his car. You figure it wouldn't be too difficult because lots of times you're alone in the stockroom and there's nobody who could see you. Your friend knows this too. Tonight he says, "Come on man, tonight would be a perfect night with your boss going home early. There won't be anyone in that back room. How about it?" What do you say or do now?

26. You're watching TV in your living room one Saturday afternoon, with a friend. Your father comes in, looking mad. He says, "Your room has been looking like a pigpen this whole week, and I'm getting sick and tired of it. You kids think the whole world owes you a living. If you want to live around here, you're going to have to do some of the work. I want you to get right up there this minute and clean up that room, and do it right!" What do you say or do now?
27. You have a friend who's a few years older than yourself. He's been in trouble with the law a lot and he's even been to prison, but he's out now. You really like him a lot and respect him and you wish he would like and respect you too, because he's a popular man in the neighborhood. He comes to your house one night and he tells you that he and another man are going to hold up a gas station out in the country. He says, "You want ot come along? We think you could be a big help to us." What do you say or do now?
28. You're looking for a job, and as you pass the local McDonald's, you notice a sign in the window that says "Part-time help wanted." You go in and ask for the manager. He comes to the counter. What do you say or do now?
29. You're at a party and all the people there are smoking grass. You used to do a lot of smoking yourself, but now you're on probation, because you got busted. Everyone knows you used to smoke. Your girlfriend offers you a joint. What do you say or do now?
30. You ask the girl who sits next to you in study hall if she'd like to see the show Saturday night and she says, "I'd like to, but my father won't let me go out with boys who are on parole." What do you say or do now?
31. What if she had agreed to go out with you, but when you went to pick her up Saturday night, her father met you on the porch and said, "Sandra is not going out with you tonight or any other night! She's a good girl, and I don't want her to ruin her reputation by being seen with a boy who's done time." What do you say or do now?
32. You're out on parole after a 10-month stay in a boy's school for truancy and car theft. It seems like your troubles just started when you got home. Some of the guys at school treat you like you're a hardened criminal. You're at your gym locker, changing into your gym things, and a guy asks if you'll lend him a quarter. Another guy, who you don't know well and who is about your size, says to him, "What? You gonna take money from a jailbird?" What do you say or do now?

33. You're in a job interview, and you really want the job because the pay is good and the hours aren't bad. The interviewer seemed interested in you until he found out you were on parole. Now he says, "We have a policy of not hiring anyone who's on parole. We've had too many problems with you boys in the past. Sorry." What do you say or do now?
34. You're on parole after nine months in a boys' school for truancy and car theft. You're back in your old school, and it's been hard, getting back in with the other students, and especially with the teachers. A couple of teachers are on your back all the time, always hassling you because of your record. Just now, one of them has surprised you in an empty classroom, where you're catching a smoke, which is against school rules. The teacher says, "OK, just what do you think you're doing in here, young man? Didn't you learn anything in that reform school?" What do you say or do now?
35. It's early afternoon and ever since you woke up this morning, you've been in a bad mood. You feel empty, tired, a little sad, and a little angry, all at the same time. What can you do to get out of this bad mood?
36. You're 13 years old, and that's too young to get a regular part-time job. But you need money badly, for clothes, and snacks, and to take your girl out. Your parents can't afford to give you much money. How might you go about getting some money?
37. It's Saturday morning and you have nothing planned for the whole day. There's nothing to look forward to, all day. You feel bored already, just thinking about it. You need some kicks. What can you do to go about solving this problem?
38. It's Thursday night, and you're home, studying for an algebra final exam you'll have the next day, on Friday. The phone rings, and it's your buddy Dave. He tells you that his cousin just dropped off two tickets he couldn't use to a sell-out rock concert that very night. He's really excited about the concert, and he says that you can come too, for free. Now this is a problem. You're sick of studying, and you'd love to go, but if you go, you won't have enough time to study algebra. It's your worst course, and you're behind in it, and you need all the time you can get, or there's a good chance you'll flunk. He says, "I'll be over in half an hour to pick you up." What do you say or do now?

39. Your parents never seem to like your friends. They say they're dirty, or that they have no manners, or that they'll get you into trouble. Joe, a new friend, has just left your house after his first visit over to your place. After he's gone, your mother gets on his case, and calls him a good-for-nothing and forbids you to see him again. How will you go about handling this problem? What will you do?
40. The girl you've been going out with just broke up with you. She said that you're OK, but she'd like to go out with other guys too. You still dig her, and you're hurt that she doesn't want to go out with you and continue to be your girl. You're in a terrible, miserable mood. You feel really down. How will you go about solving this problem?
41. You are 13 years old and have a newspaper route in your neighborhood. You usually work from 4 to 6 every afternoon. Your customers rarely tip you. Today it's cold out, and you're tired, and you just don't feel like delivering the damn papers. You feel like setting fire to the whole stack of them. What will you do?
42. You've been having trouble in geometry class because the work seems too hard for you. But you've felt embarrassed to tell the teacher it's too difficult for you. So what you've been doing is cutting classes. Now it's a week before a big exam, and you're completely lost. You don't know what's going on. What can you do to go about solving this problem?
43. It's Friday night and you have the car but you don't have anywhere to go. The evening stretches ahead of you, empty. You're bored, and you feel restless, and you wish there were some excitement. What can you do to go about solving this problem?
44. Your mother is always hassling you about going to church on Sundays. You think the whole church bit is hypocritical, boring, and irrelevant to your life, but your mother loses her temper every time you say you won't go, and you end up arguing about it all day. You wish you could settle this once and for all. How can you go about doing this?

APPENDIX D

ADOLESCENT PROBLEMS INVENTORY (API)

Below you will find a series of 17 items describing situations which have been found to be problems for most people. It is important that you respond to each situation as you think you actually would behave if placed in those circumstances. Please answer each item in the space provided, making sure to complete all items.

1. You are deprived of a promotion to which you are entitled because you have not played up to the right people.
2. You've just been told by your employer that you've done a poor job on your last assignment.
3. Suppose that you are being singled out for correction by your teacher when the actions of other students go unnoticed.
4. You are in an argument. Suppose that the person you are arguing with begins pushing and shoving you.
5. You are in a theater ticket line and someone cuts in front of you.
6. Let's suppose that you are being stood up for a date.
7. You are being talked about behind your back.
8. You are in a discussion with someone who persists in arguing about a topic they obviously know very little about.
9. You are forced to do something in a way that someone else thinks is right.
10. You have hung up your clothes, but your roommate knocks them to the floor and fails to pick them up.
11. Suppose that someone makes a mistake at work and blames it on you.
12. You are trying to discuss something important with your girlfriend who isn't giving you a chance to express your feelings.
13. Let's suppose that you're given an unnecessarily difficult exam when you need a good grade.
14. You have had a busy day and the person you live with starts to complain about how you forgot to do something that you agreed to do.
15. A friend borrows your car, consumes one-third of a tank of gas, and doesn't replace it or compensate you for it.
16. In the parking lot, the person whose car is next to yours swings open his/her door, chipping the paint from your car.
17. The teacher has lost your term paper and you do not have an extra copy of it. Because of this, you are forced to redo the assignment.

APPENDIX E

REVISED BEHAVIOR PROBLEM CHECKLIST (RBPC)

Please complete items 1 to 7 carefully.

1. Name (or identification number) of child
2. Date of birth
3. Sex
4. Father's occupation
5. Name of person completing this checklist
6. Relationship to child (circle one)
 - a. Mother
 - b. Father
 - c. Teacher
 - d. Other _____
(specify)
7. Date checklist completed

Please indicate which of the following are problems, as far as this child is concerned. If an item does NOT constitute a problem or if you have had no opportunity to observe or have no knowledge about the item, circle the zero. If an item constitutes a MILD problem, circle the one; if an item constitutes a SEVERE problem, circle the two. Please complete every item.

- | | | | |
|--|---|---|---|
| 1. Restless; unable to sit still | 0 | 1 | 2 |
| 2. Seeks attention; "shows-off" | 0 | 1 | 2 |
| 3. Stays out late at night | 0 | 1 | 2 |
| 4. Self-conscious; easily embarrassed | 0 | 1 | 2 |
| 5. Disruptive; annoys and bothers others | 0 | 1 | 2 |
| 6. Feels inferior | 0 | 1 | 2 |
| 7. Steals in company with others | 0 | 1 | 2 |
| 8. Preoccupied; "in a world of his own;" stares into space | 0 | 1 | 2 |
| 9. Shy, bashful | 0 | 1 | 2 |
| 10. Withdraws; prefers solitary activities | 0 | 1 | 2 |
| 11. Belongs to a gang | 0 | 1 | 2 |
| 12. Repetitive speech; says same thing over and over | 0 | 1 | 2 |
| 13. Short attention span; poor concentration | 0 | 1 | 2 |
| 14. Lacks self-confidence | 0 | 1 | 2 |
| 15. Inattentive to what others say | 0 | 1 | 2 |
| 16. Incoherent speech; what is said doesn't make sense | 0 | 1 | 2 |
| 17. Fights | 0 | 1 | 2 |
| 18. Loyal to delinquent friends | 0 | 1 | 2 |
| 19. Has temper tantrums | 0 | 1 | 2 |
| 20. Truant from school, usually in company with others | 0 | 1 | 2 |
| 21. Hypersensitive; feelings are easily hurt | 0 | 1 | 2 |
| 22. Generally fearful; anxious | 0 | 1 | 2 |
| 23. Irresponsible, undependable | 0 | 1 | 2 |
| 24. Has "bad" companions, ones who are always in some
kind of trouble | 0 | 1 | 2 |
| 25. Tense, unable to relax | 0 | 1 | 2 |

(continued)

Appendix E - Revised Behavior Problem Checklist - Page 2

26.	Disobedient; difficult to control	0	1	2
27.	Depressed; always sad	0	1	2
28.	Uncooperative in group situations	0	1	2
29.	Passive, suggestible; easily led by others	0	1	2
30.	Hyperactive; "always on the go"	0	1	2
31.	Distractible; easily diverted from the task at hand	0	1	2
32.	Destructive in regard to own and/or other's property	0	1	2
33.	Negative; tends to do opposite of what is requested	0	1	2
34.	Impertinent; talks back	0	1	2
35.	Sluggish, slow moving, lethargic	0	1	2
36.	Drowsy; not "wide awake"	0	1	2
37.	Nervous, jittery, jumpy; easily startled	0	1	2
38.	Irritable, hot-tempered; easily angered	0	1	2
39.	Expresses strange, far-fetched ideas	0	1	2
40.	Argues; quarrels	0	1	2
41.	Sulks and pouts	0	1	2
42.	Persists and nags; can't take "no" for an answer	0	1	2
43.	Avoids looking others in the eye	0	1	2
44.	Answers without stopping to think	0	1	2
45.	Unable to work independently; needs constant help and attention	0	1	2
46.	Uses drugs in company with others	0	1	2
47.	Impulsive; starts before understanding what to do; doesn't stop and think	0	1	2
48.	Chews on inedible things	0	1	2
49.	Tries to dominate others; bullies, threatens	0	1	2
50.	Picks at other children as a way of getting their attention; seems to want to relate but doesn't know how	0	1	2
51.	Steals from people outside the home	0	1	2
52.	Expresses beliefs that are clearly untrue (delusions)	0	1	2
53.	Says nobody loves him or her	0	1	2
54.	Freely admits disrespect for moral values and laws	0	1	2
55.	Braggs and boasts	0	1	2
56.	Slow and not accurate in doing things	0	1	2
57.	Shows little interest in things around him or her	0	1	2
58.	Does not finish things; gives up easily; lacks perseverance	0	1	2
59.	Is part of a group that rejects school activities such as team sports, clubs, projects to help others	0	1	2
60.	Cheats	0	1	2
61.	Seeks company of older, "more experienced" companions	0	1	2
62.	Knows what's going on but is listless and uninterested	0	1	2
63.	Resists leaving mother's (or other caretaker's) side	0	1	2
64.	Difficulty in making choices; can't make up mind	0	1	2
65.	Teases others	0	1	2
66.	Absentminded; forgets simple things easily	0	1	2

(continued)

Appendix E - Revised Behavior Problem Checklist - Page 3

67.	Acts like he or she were much younger; immature, "childish"	0	1	2
68.	Has trouble following directions	0	1	2
69.	Will lie to protect his friends	0	1	2
70.	Afraid to try new things for fear of failure	0	1	2
71.	Selfish; won't share; always takes the biggest piece	0	1	2
72.	Uses alcohol in company with others	0	1	2
73.	School work is messy, sloppy	0	1	2
74.	Does not respond to praise from adults	0	1	2
75.	Not liked by others; is a "loner" because of aggressive behavior	0	1	2
76.	Does not use language to communicate	0	1	2
77.	Cannot stand to wait; wants everything right now	0	1	2
78.	Refuses to take directions, won't do as told	0	1	2
79.	Blames others; denies own mistakes	0	1	2
80.	Admires and seeks to associate with "rougher" peers	0	1	2
81.	Punishment doesn't affect his or her behavior	0	1	2
82.	Squirms, fidgets	0	1	2
83.	Deliberately cruel to others	0	1	2
84.	Feels he or she can't succeed	0	1	2
85.	Tells imaginary things as though true; unable to tell real from imagined	0	1	2
86.	Does not hug and kiss members of family; affectionless	0	1	2
87.	Runs away; is truant from home	0	1	2
88.	Openly admires people who operate outside the law	0	1	2
89.	Repeats what is said to him or her; "parrots" others' speech	0	1	2

APPENDIX F

WEEKLY HANDOUTS

WEEK 1

Anger Management Principles

1. Some of the time, and maybe a lot of the time, becoming angry has something to do with doubting yourself, being unsure, or feeling threatened by someone else. It's always important to remember that you are a worthy person and that you have many good qualities.
2. Sometimes you get angry because you take things personally when there is no need to do that. But even when someone is acting in a way designed to upset you, you can control your anger by remembering what it is you are trying to do and sticking to that. This is called being task-oriented.
3. Sometimes you may get angry because it's the only thing you've ever done in a particular situation. As you learn other ways of handling situations, you will be less likely to use anger.
4. One of the most important things you must do to control your anger is to recognize when you are becoming aroused. That is, as you learn to recognize the signs that your body gives you when you are angry, the better able you will be to head off an angry response. As you learn to relax more easily, you'll be able to handle your arousal better.
5. Your anger can act as a signal that something needs to be done if you want a positive outcome. Use your anger to work to your advantage. Remember, getting angry makes you uptight and increases your chances of acting without thinking; acting without thinking gets you into trouble. Stay on task and instruct yourself about what to do.
6. Sometimes you get angry because things are getting out of hand and you want to take charge. Sometimes you are afraid things will not go the way you want them to, so you get angry to control them. You will learn that once 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 to NOT get angry when most people would expect or even want you to.
7. Breaking difficult situations down makes them easier to handle which again puts you on top of the situation.
8. Sometimes you may get angry because you're always aware of the problems you have while forgetting about all the positive things you do. You forget the good and emphasize the mistakes. Remember to congratulate yourself when you have successfully handled a tough situation and allow yourself to feel good about it.

(continued)

WEEK 2

1. What is anger?
Anger is an emotional reaction to certain kinds of stress called provocation. Anger is a feeling, an emotion.
2. Are anger and aggression the same thing?
No, aggression is an action that is intended to hurt someone.
3. So what?
This means that anger does not have to lead to aggression and that it does in fact have some OK qualities. Anger is a feeling which you have the right to feel.
4. What are the positive functions of anger?
First, it's an energizer for dealing with conflict. Second, it is a way to express negative feelings. Third, it gives us information about situations and acts as a cue to do something about it. Fourth, it helps us to feel in control and to take control of a situation that is getting out of control.
5. So if anger is so great, why do I have to be a part of this program?
Well, as you know, if we don't handle our anger, it can get us into trouble. Here are some of the negative parts of anger. First, it can disrupt thoughts and actions, making it easier to act without thinking. Second, it allows us to defend ourselves when we don't need to, like when we are embarrassed. Third, it can lead to aggression. Fourth, we can use anger to look a certain way to others: build a reputation.
6. What causes anger?
Three things do by working together. The events that happen (external events). The things we say to ourselves about what happened (internal factors). How we choose to react to what happened (behavioral). We've talked about this in terms of being bumped into when walking down the sidewalk, deciding it was or wasn't on purpose, and then acting in a certain way based upon whether or not we think it was intentional.

(continued)

Appendix F - Weekly Handout - Page 3

WEEK 3

When does anger become a problem?

1. when it's too frequent
2. when it's too intense
3. when it lasts too long
4. when it leads to aggression
5. when it disturbs work, school, relationships

There seem to be four types of provocation that lead to anger:

1. frustration
2. annoyances or irritations
3. abuse
4. injustices

Most people do not believe they have an anger problem until:

1. they really hurt someone
2. they get into trouble with the law, or
3. they drive away someone they love

People often believe many things about their emotions which don't seem to be true. Here are some common anger myths:

1. it's his problem, not mine
2. my anger came out of the sky, without warning
3. if I don't call it anger, it's not anger
4. I'm the last of the gunslingers
5. I wish it, so therefore it's true
6. he started it
7. the hell with later
8. I need excitement all the time
9. I shouldn't have to watch myself so closely, others don't have to

Emotions seem to have three parts: an external, internal, and behavioral part. Because we can't control what situations arise and what others do, we need to work on the internal and behavioral parts of this equation.

We've talked about several things in group regarding internal factors including the things we say to ourselves (self-talk), how we look at a situation (appraisals), and the ideas we have about how people should behave in certain situations (expectations). All three of these are things we can change if we choose to.

A man named Ellis has talked about these things in a way that is a little different. He says there are the A-B-C's of emotions and behaviors. He states that when something happens (antecedent or A), we often have certain beliefs (B) about what that means. Often these beliefs are not realistic and they lead to negative consequences (C). Ellis has found that if you change the beliefs you can also change to more positive consequences.

(continued)

Appendix F - Weekly Handout - Page 4

WEEK 4

Often times, our anger feels like an overwhelming rush which we cannot control. Besides paying attention to the cues our body gives us, we can slow down this emotional rush by dividing it into four stages and using self-talk appropriate to each stage. The acronym PICK will help you to remember these stages. Below are the four stages and examples of adaptive self-talk for each.

P - Prepare for provocation. This may not always be possible but when it is, when you know you are likely to run into a difficult situation, try these:

- this could be a rough situation but I know how to deal with it.
- remember, stick to the issues and don't take it personally.

I - Impact and confrontation. This is when you actually encounter a provocation-type situation. Try these:

- as long as I keep my cool, I'm in command of this situation.
- there is no point in getting mad; think of what you have to do.

C - Coping with arousal.

- muscles are getting tight. Relax and slow things down. Remember the WISER way.
- he probably wants me to get angry but I'm going to deal with it constructively.

K - Kick back and think (reflect). How did it go? If the conflict is unresolved:

- forget about the aggravation. Thinking about it only makes you more upset.
- hey, at least you tried to use the skills. Remember it's not possible to be successful every time. The important thing is I tried.

If you resolved the conflict:

- I handled that one pretty well.
- My pride can get me into trouble, but I'm doing better at this all the time.

These statements may not feel very comfortable to you at first. Try them on for size. If you still don't like them, come up with something that you do feel comfortable with.

It is also very important to take a problem-solving approach when confronted by a provocation situation. When we don't take things personally, it's easier to stay in control. One problem-solving approach is the WISER way. This approach has five steps.

W - Wait. Use your body's arousal to cue you to wait.

I - Identify. Look at the problem from your point of view and from that of others in the situation.

S - Solutions. Generate as many solutions as possible.

E - Evaluate. Look at the consequences of each solution and select a course of action.

R - Reinforce. Self-reinforce for attempting to put the chosen solution into action.

(continued)

WEEK 5

1. Well, we've been meeting for five weeks now and you still haven't told me how to control my anger.
We have provided several ways for you to begin handling your anger in different ways but things will change only if you accept the responsibility for using them. You are responsible for your own behavior and must accept this responsibility before you can change.
2. Wait a minute, I accept responsibility for the way I act!
Most people admit responsibility for the way they act. However, your responsibility extends beyond behaviors that everyone can see, for example, your thoughts. Just because you are the only one who can detect them doesn't mean you can dodge the responsibility. You may have never looked at thoughts this way nor considered that you can change your thoughts.
3. OK, so I accept responsibility for my thoughts, so what?
Well, you also need to accept responsibility for your emotions. Emotions are also behaviors and like thoughts you are responsible for them. The way many of us learn to express emotion actually puts the responsibility on the wrong person. "He hurt my feelings." "She makes me angry." "He bummed me out."
4. Now I've accepted responsibility for my thoughts and feelings, I still say, so what? What good does it do?
Well, it certainly doesn't make everything that's bad in your life go away. However, what it does do is put you in charge of your life. Once you have accepted the responsibility for your thoughts and emotions, you have the power to change the way you act and feel.
5. I guess I'm not really sure how accepting responsibility gets changed into behavior.
One way is to begin making "I" statements. "I feel upset about what happened." "I feel angry when you tell me I'm not working in school when I think that I have been working." Then after you make an "I" statement, you can request that the person you are dealing with change his/her behavior, but make sure you have told them what that behavior is.
6. Wait a second, I'm confused. First, I'm accepting responsibility for my own stuff, then all of a sudden you are telling me to tell somebody to change their behavior. I don't get it and I don't think it will work.
What we just talked about was how to handle a situation assertively, not aggressively. You are right, it might not always work but if you give it a try you might be surprised.

(continued)

WEEK 6

1. We talked a little last week about how to handle situations assertively, but I'm still not sure what the difference is between aggression and assertion.
Remember way back in Handout 2, we talked about aggression being an action that is intended to hurt someone. Assertion is standing up for yourself and stating your case without stepping on the toes of someone else.
2. What do you mean, ". . . stepping on the toes of someone else?"
I mean that you accept responsibility for your part in the difficulty, take a task-oriented, problem-solving approach, and do not attempt to attack (verbally or physically) the other person but rather attempt to resolve the problem.
3. Tell me again how you act assertively.
I am glad you used the word "act." As with most things, this will feel unnatural the first time you try it and in a sense is a lot like acting, but the more you act it out, the easier it will be to do. Keeping that in mind, an assertion has three important parts. First, you tell the individual what behavior they are doing that you would like to see change. Second, you tell the individual how this affects you. Finally, you tell them what you would like to have happen.
4. Sure, and they are just going to stop whatever it is they are doing, right? Give me a break....
Actually, most people respond defensively to an assertive statement so you have to be prepared to deal with this. The easiest way is simply reflecting their statement back to them. Remember, getting angry will only escalate the situation and increase the chances of your not getting what you want.
5. So what is reflecting?
Reflecting is simply a way of listening and responding to a person that lets them know that you have heard them. It's listening to a person and repeating their message in your own words, without adding any extra meaning.
6. So I reflect and they still don't accept what I have to say. In fact, they just keep sticking on their point and ignore mine. What do I do now?
Stick to your guns. Keep reflecting and every third or fourth time you speak repeat your assertion (not necessarily word for word). Assertion will not work every time but it will be effective in many situations, especially if you use it with the other techniques you've already learned.

APPENDIX H

TREATMENT SESSION OUTLINES

SESSION 1

Purpose: Introduction to materials
 Exploration of individual anger control problems

Outline:

- A. Introduction
 - 1. Purpose: provide anger management skills
 - 2. Methods
 - a. features of anger
 - b. differentiate types of provocation
 - c. break down the anger process
 - d. teach skills
 - 3. Goals
 - a. reduce frequency of anger
 - b. reduce intensity of anger
 - c. increase effective ways of handling anger
 - d. increase self-esteem
 - e. increase ability to get what you want
 - f. increase knowledge of anger and related phenomena
- B. Ground Rules
 - 1. Waiting room
 - 2. Equipment
 - 3. Starting/ending times
 - 4. Participation
 - 5. Respecting others
 - 6. Confidentiality
- C. Group Focus
 - 1. Icebreaking
 - a. name
 - b. reason for participation
 - c. common anger incident
 - 2. Exploration of individual anger problem
 - a. degree believe have an anger problem
 - b. greatest concern about anger problem
 - c. how working on this life different
 - 3. Analysis of common anger problems
 - a. sit x person x mode of expression analysis
 - b. examples
 - c. why
 - 1) patterns-understanding
 - 2) control
 - 4. Deficits in relation to determinants of anger
 - a. external factors
 - 1) things or events that happen to us
 - 2) the circumstances under which they occur

(continued)

Appendix H - Treatment Session Outlines - page 2

- b. internal factors
 - 1) what these events mean to us
 - 2) how are we prepared to experience them
 - 3) how we do experience them
- c. interaction between external and internal
 - 1) behavior - what will happen thereafter
 - 2) how we feel about it
- 5. Personal antecedents
- 6. Summary
- 7. Homework
 - a. anger diary
 - 1) go over sheet
 - 2) example item
 - 3) confidentiality
 - b. hand out hierarchy cards
 - 1) series of anger experiences likely to encounter again
 - 2) one incident per card
 - c. tuning into private speech

SESSION 2

Purpose: Solidify previous learning
 Begin development of anger hierarchy
 Teach relaxation procedures

Methods:

- A. Questions from last week's session
- B. Review of homework
 - 1. Anger principles
 - 2. Anger diary
 - a. share an experience
 - b. review of anger arousing circumstances
 - 3. Determinants of anger arousal
 - a. external events
 - b. internal factors
 - c. relate to previous examples
 - 4. Anger hierarchy cards
 - a. be prepared for those who didn't bring theirs
 - b. explain rationale
 - c. put into order
- C. Relaxation training
 - 1. Rationale
 - 2. Introduce imagery
 - a. relaxation portion
 - b. tranquil imagery (30 seconds)
 - c. anger imagery (15 seconds enhance, 15 seconds coping)

(continued)

Appendix H - Treatment Session Outlines - Page 3

- d. tranquil imagery (30 seconds)
- 3. Process experiences and relate to hierarchy items
- D. Review session

Homework: Anger diary
 Practice relaxation techniques at home
 Tune into private speech
 Review handout

SESSION 3

Purpose: Introduce cognitive control of emotions (Ellis' A-B-C's)
 Review of previous session's content
 Practicing of relaxation techniques

Methods:

- A. Review of Homework
 - 1. Self speech
 - 2. Relaxation training
 - 3. Hierarchy cards
 - 4. Anger diary
 - 5. Handout from last session
- B. Introduction of Ellis' Model of Emotional Reactions
 - 1. Identify each member's primary style of coping with anger
 - 2. How thoughts and beliefs affect one's feelings and actions
 - 3. Emphasis on personal choice
 - 4. Analysis of examples
 - 5. Relation to internal, external, and interactive ideas
- C. When is Anger Justified?
 - 1. Reinforce Ellisonian model
 - 2. Distinguish appropriate employment of anger in positive ways
- D. Relaxation Training
 - 1. First anger hierarchy card
 - 2. Active coping using self-statements

Homework:

- A. Anger diary
- B. Self talk
- C. Relaxation training using 1 and 2 cards
- D. Review of handout

(continued)

SESSION 4

Purpose: Emphasize recognition of appropriate anger
 Introduce staging in relation to provocation
 Begin using coping techniques in combination with the idea
 of staging
 Introduce the WISER way

Methods:

- A. Review Homework
 1. Review handout
 2. Self talk
 3. Relaxation training with Cards 1 and 2--encountered?
 4. Anger diary
- B. Recapitulation of A-B-C Concept
 1. Diagram example from an anger diary
 2. Appropriateness of anger
 3. Physiological components
 4. Alternative self statements
- C. Building of Empathy
 1. Exploration and understanding of other guy's feelings
 2. Role play
- D. Introduce Staging
 1. Four stages (PICK)
 - a. preparing for a provocation
 - b. impact and confrontation
 - c. coping with arousal
 - d. subsequent reflection (kick-back and think)
 2. Examples of self-statements
 3. Modeling by leaders
- E. Introduce WISER Way
 1. Five steps
 - a. wait-use your body's arousal to cue you to wait
 - b. identify-look at the problem from your point of view and from that of others in the situation
 - c. solutions-generate as many solutions as possible
 - d. evaluate-look at the consequences of each solution and select a course of action
 - e. reinforce-self-reinforce for attempting to put the chosen solution into action
 2. Use in combination with staging
 3. Example
 4. Role-play (two groups; separate rooms)
- F. Relaxation Training
 1. Cards ?
 2. Use WISER way
- G. Review

(continued)

Appendix H - Treatment Session Outlines - Page 5

Homework:

- A. Anger diary
- B. Relaxation training using the WISER way
- C. Begin in vivo use of skills
- D. Review Handout 4

SESSION 5

Purpose: Review previous material
Add additional coping mechanisms
Consolidating learning

Methods:

- A. Review of Homework
 - 1. Relaxation training
 - 2. Anger diary
 - a. A-B-C
 - b. reinforce positive methods of coping
 - c. identify primary coping mechanisms
- B. Review of Previous Material
 - 1. PICK
 - a. preparing for provocation
 - b. impact and confrontation
 - c. coping with arousal
 - d. Kick back and think (reflect)
 - 2. WISER way
 - a. wait
 - b. identify
 - c. solutions
 - d. evaluate
 - e. reinforce
 - 3. Role play using above concepts
- C. New Concepts
 - 1. Communication of feelings appropriately
 - a. know what to say and how to say it
 - b. role play
 - 2. Assertion
 - a. confrontation does not mean hostility
 - b. inappropriate role play (?)
 - c. appropriate role play
 - 3. Staying task oriented
 - a. what is the desired outcome
 - b. don't take it personally
 - c. use your anger as a cue of what to do
 - d. remember the WISER way
- D. Relaxation Training
 - 1. Using coping skills
 - 2. Focus on anger signs
 - 3. Stay task oriented

(continued)

Appendix H - Treatment Session Outlines - Page 6

Homework: Anger diary
 Relaxation Training
In Vivo training

SESSION 6

Purpose: Review previous learning.
 Discuss problem areas
 Solidify learning
 Put closure on the group experience

Methods:

- A. Review of Previous Material with Interspersed Role-play
 - 1. Functions of anger
 - 2. Factors in anger
 - a. external
 - b. internal
 - c. interaction
 - 3. Sit x person x mode of expression analysis
 - 4. Relaxation training
 - 5. A-B-C's of emotions
 - 6. Appropriate vs. inappropriate anger
 - 7. Empathy--being the other guy
 - 8. Staging--PICK
 - a. preparing for a provocation
 - b. impact and confrontation
 - c. coping with arousal
 - d. kick back and think--reflect
 - 9. Problem-solving: the WISER way
 - a. wait
 - b. identify
 - c. solutions
 - d. evaluate
 - e. reinforce
 - 10. Assertion training
 - 11. Staying task oriented
- B. Review of Group Experience with Role-plays and Relaxation Training
- C. Review of Group Experience from the Guys' Perspective
 - 1. Likes
 - 2. Dislikes
 - 3. Meaningfulness of the experience for the therapists

Homework:

Continue to use techniques that were learned

APPENDIX I

MENTAL RELAXATION INSTRUCTIONS

During the rest of this period, you will be learning a cognitive relaxation technique which has been utilized by psychologists in clinical settings. This is a technique that has been proven to be quite effective, and it is possible that you will find yourself learning to become more relaxed than you've ever been before. This procedure hinges on the fact that a person can use mental techniques to completely relax not only their mind but their body also. This is to say that the mind can completely relax an individual, thus making it impossible for them to experience tension or anxiety.

The way the procedure works is that I will instruct you to imagine various experiences, sensations, and images as I describe them to you. In addition, I will offer various suggestions of calm and relaxation as we proceed through the technique. What you are to do is concentrate only on my voice, clear all thoughts from your mind, and follow my instructions. When I ask you to picture or imagine something, I want you to do so as clearly and vividly as you possibly can. Follow along with me and progress at the pace I set for you; do not get ahead of me or behind me. As we go through the procedure, you will find yourself becoming more and more relaxed and comfortable. Focus on these relaxed sensations and experience them to the fullest degree. Notice the differences between the feelings of tenseness and the feelings of relaxation.

Okay, we are ready to begin. Get comfortable in the chair, sit back completely, close your eyes and keep them closed until instructed to open them again.

Now, I'd like you to picture a warm, pleasant fluid bathing your feet and ankles. This fluid is just the right temperature--not too warm or too cool, just right--and it feels very soothing and relaxing. As it bathes your feet and ankles, you can feel it washing away all the tensions and tightness in the muscles and replacing the tension with warm, soothing sensations of relaxation. The muscles are feeling very relaxed and comfortable, and as they relax, they begin to feel warm and heavy, warm and heavy--that's right, nice and relaxed and comfortable. Feel those relaxed sensations and notice the difference between tense muscles and relaxed muscles.

Now picture the warmth moving up your lower legs slowly, slowly and bathing your lower legs with warmth and relaxation. Now it's up to your knees and bathing your legs from the knees on down in sensations of relaxation. The muscles in your lower legs and feet are feeling very relaxed; all feelings of tightness and tension are gone, and in their place are sensations of pleasant, soothing, comfortable relaxation. Your legs from the knees on down are feeling very relaxed, and they feel warm and heavy, warm and heavy and relaxed. That's right--notice how good it feels; notice the difference between tension and relaxation.

(continued)

Appendix I - Mental Relaxation Instructions - Page 2

Now, the warmth again begins to move; slowly, slowly moving up the upper part of your legs. Feel it bathing your thigh muscles in warm, pleasant sensations of relaxation. It's moving up to your waist and bathing your legs in warm, soothing sensations of relaxation . . .

(Continue in same manner utilizing similar patten until entire body has been covered. Progress up torso specifying stomach and lower back muscles, chest and upper back, shoulder and neck muscles. Pause at neck and go over torso and leg muscles to feet. Repeat patten at intervals. Progress then to arm, upper and lower muscles, down to finger tips. Progress then to head and facial muscles, covering muscles of chin, jaw, cheek, back of head, forehead, and to top of head. Upon completing, run back over muscles briefly, starting at toes and returning to top of head, using similar patten and instructions).

Now that we have relaxed your entire body from the tips of your toes to the top of your head, I want you to take the next minute or two and experience the feelings of complete bodily relaxation. Notice the differences between what it feels to be relaxed, like you are now, and what it feels when you are tense, like you were when we started. Just get in touch with the sensations of relaxation coming form your body. (Pause for 60 seconds.)

Now, for a few moments I would like you to concentrate on your breathing. Breathe at a nice, easy, slow pace and just concentrate on your breathing--nice and easy and relaxed. Very good. (60 second pause.) Now for the next minute or so I want you to say the word "relax" to yourself. Do it like this: Every time you exhale, say "relax" to yourself--just say "relax" to yourself every time you exhale. Good, now just do that to yourself for the next minute or so until I tell you to stop. (Pause for 60 seconds.)

Very good. Now that we have relaxed your body, we are going to relax your mind. We are going to do that by taking you to your personal relaxation spot, a spot where you will be totally and completely relaxed. Concentrate only on my voice, and remove all other thoughts from your mind. Now, I want you to picture yourself in a mountain meadow. Picture this very clearly in your mind. Let's look around your meadow. It's a big, wide, open meadow stretching away into the distance--a beautiful meadow. It's covered with tall grass, deep green in color, and the grass is waving in the breeze back and forth, back and forth, slowly and gently. Look at the tall, green grass. Now let's look at the sky, how beautiful it is; the sky is a clear, deep blue, the sun is shining, and a few white fluffy clouds are drifting lazily along. Feel the sun shining down, nice and warm--just right, not too warm and not too cool--just right. Feel the gentle breeze blowing across the meadow, just a comfortable gentle breeze. Let's look around some more; we can see that all around the meadow a deep rich green forest is standing--a lush, beautiful forest with dark green, tall, stately trees. Off in the distance we can see some mountain peaks, high lofty peaks, kind of hazy gray in the

(continued)

Appendix I - Mental Relaxation Instructions - 3

distance and capped with white snow at their very tops. What a beautiful place; just look at it, a completely relaxing, peaceful, serene place. And now notice that through the meadow a brook is flowing, just meandering along. A small narrow brook with crystal clear water; deep, cool water that is absolutely pure. There's a pool in the brook, and in this pool a few fish are just lazily swimming around; they're just taking it easy and floating around in the pool. Everything in your meadow is relaxed and just going along at an easy pace. Nothing but calm and relaxation can exist here; tension and anxiety aren't allowed and just disappear. Just enjoy yourself; this is your spot, your own personal place of relaxation. (Briefly run through the scene again, describing the setting and repeating relaxation patter.)

Okay, now just concentrate on your meadow and get in touch with those feelings of relaxation you are now experiencing. Take the next few minutes to experience and enjoy being relaxed; notice what it feels like; discover what it feels like to be relaxed. (Following this, the anger hierarchy item was introduced and vivified. Then the individual was asked to cope with the scene. Finally, he was returned to the imaginary meadow scene).

I will now count backwards from four to one, and as I do, you will feel yourself beginning to become more and more alert. Four--move your legs; three--now your fingers and hands; two--move your head around; one--open your eyes and sit up.