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UMI
EVALUATION OF THE PEER HELPING COMPONENT OF A GROUP TREATMENT PROGRAM FOR ANTISOCIAL YOUTH

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
The Degree of Doctor of Philosophy in the
Graduate School of The Ohio State University

By
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1999

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ABSTRACT

The present study provided an evaluation of the EQUIP Program, a multi-component group treatment program for antisocial youth. The primary aim of the study was to evaluate the structured peer-helping component of the program, in which group members report self-serving cognitive distortions and apply learned skills to help one another correct those distortions and associated problem behaviors. The secondary goals of the study include: investigating the role of mediating variables in the EQUIP program, investigating the relations between mediating variables and treatment outcome, and investigating the factors that influence subject attrition. The subjects in the program were 58 male felony offenders ages 16-26 residing at a Midwestern treatment facility for youth involved in the criminal justice system. The experimental group received the comprehensive EQUIP program, which included the structured peer helping component. Subjects in the comparison group learned the helping skills but were not given the opportunity to apply them; they engaged instead in unstructured peer helping during those group meeting times. EQUIP subjects relative to control subjects evidenced significant improvements in institutional conduct. Differences based on self-report measures, however, were not significant. Moral judgment the only mediating factor that was a significant predictor of favorable treatment outcome. Factors that were related to
higher levels of attrition include high levels of noncompliance during group sessions, and high levels of internalizing behaviors. The implications and limitations of the study are discussed.
Dedicated to my Mom and Dad
ACKNOWLEDGMENTS

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CHAPTER 1

INTRODUCTION

Recently, investigators concerned with interventions for antisocial youth (youth with behaviors that constitute “social rule violations, acts against others, or both;” Kazdin, 1995a, p.1) have called for comprehensive treatment approaches that weave promising, compatible components into multi-faceted programs (Goldstein, 1991; Henggeler, 1989; Kazdin, 1995a). These researchers have argued that multi-component programs are especially important for antisocial youth given their heterogeneity (Quay, 1987) and consequently diverse treatment needs. A number of such multi-component programs have emerged in recent years (e.g., Goldstein & Glick, 1987; Henggeler & Borduin, 1989). One such program is called EQUIP (Gibbs, Potter, & Goldstein, 1995). EQUIP stems largely from two extant programs: Positive Peer Culture (Vorrath & Brendtro, 1985), a peer group treatment intervention; and Aggression Replacement Training (Goldstein & Glick, 1987), a psychoeducational skills intervention. This study evaluated the importance of the EQUIP program's peer-helping component, in which group members report self-serving cognitive distortions and apply learned skills to help one another correct those distortions and associated problem behaviors. The peer-helping component was evaluated via a “dismantling strategy” (Kazdin, 1995b, p. 20).
The experimental group received the comprehensive EQUIP program whereas the control group received the skills taught in the EQUIP program but not with the structured peer-helping format. The skills' components of the EQUIP program are aimed at remediating the limitations typical of antisocial youth (see below).

Researchers have also advocated the use of diverse strategies in intervention outcome research so as to help us understand the mechanisms and processes through which treatments operate as well as the impact of treatment and moderating influences on maladaptive and adaptive functioning (Kazdin, 1995b; Kovacs & Lohr, 1995; Copeland, 1982; Kendall & Braswell, 1985). Beyond its primary aim of evaluating the peer-helping component, this study investigated the processes or mediating variables involved in the EQUIP program and factors that influence attrition. The EQUIP program and the evaluation study are elaborated below.

The EQUIP Program

The EQUIP program is an innovative new treatment program designed to motivate youthful offenders and other antisocial youth to help one another in groups, and to equip the group with helping skills. Peer-group programs as applied to antisocial youth must utilize specific techniques to develop a positive youth culture, and must habilitate with helping skills, if such youth are effectively to help one another (Gibbs, Potter, Barriga & Liau, 1996). The peer-helping approach and the habilitation of helping skills constitute components of the EQUIP program.

The Peer-Helping Approach

The modern mutual help or peer-helping program originated in 1935 with the
founding of Alcoholics Anonymous. Such groups have quickly proliferated and today, approximately 500,000 peer or mutual help groups have emerged, involving over 12 million Americans (Hurley, 1988; Wuthnow, 1994). Like Alcoholics Anonymous, many of these group programs address the struggle against an addictive behavior.

Beginning in the 1940s, mutual help groups were being applied to individuals who regularly victimize others and society. At a psychiatric hospital in Great Britain, Jones (1953) introduced techniques for cultivating a "therapeutic community" among sociopathic patients. Independently and concurrently in New Jersey, McCorkle, Elias, and Bixby (1958), applied similar techniques to delinquent boys in an intervention they termed "guided group interaction." These techniques were subsequently refined by Vorrath and Brendtro (1985), who modified the guided group interaction approach and renamed it "Positive Peer Culture," or PPC, to depict its intended goal. Agee (1979) similarly refined guided group interaction for use with severely aggressive adolescents.

The Challenge of a Negative Youth Culture

Unlike most mutual help groups, which are initiated voluntarily by participants, mutual help groups for antisocial youths are initiated by adults and typically meet with initial resistance. Hence, antisocial youths represent a formidable challenge to the peer-helping approach. Researchers and practitioners have noted the negative norms of antisocial youth groups: for example, "Drug use is cool, sexual exploitation proves manliness, and you have to watch out for number one" (Brendtro & Wasmund, 1989, p.83). In their analysis of a Bronx, New York high school, Kohlberg and Higgins (1987) termed these norms "counter-norms," (e.g., "Look at me the wrong way and you're in for..."
a fight," and "It's your fault if something is stolen; you were careless and tempting me";
(p.110). In correctional settings, the negative youth culture is "characterized by
opposition to institutional rules and goals, norms against informing authorities about rule
violations, and the use of physical coercion as a basis of influence among inmates"
(Osgood, Gruber, Archer, & Newcomb, 1985, p.71).

Mutual help programs for antisocial youths have to transform this negative youth
culture into one characterized by caring and constructive help for peers. The thesis of
PPC and similar programs is that such transformations are possible because antisocial
youths would like to be able to feel genuinely good about themselves and can learn that
helping others is one way to do it. Changed adult offenders in an intensive, year-long
program described the appeal of self-esteem in terms of being "clear" in their thinking
about life with other people and having an "inner peace" or inner sense of being "clean"

Evaluations of Mutual Help Programs

Evaluations of the thesis that peer-helping or mutual help programs can promote
self-esteem and constructive behavior have yielded a mixed picture (Gibbs et al., 1996).
Outcome evaluation studies of PPC and related programs have been conducted in schools
(public and alternative), juvenile correctional facilities or detention centers, private
residential facilities, and community group homes. Many of these studies have found
guided mutual help programs to be effective in improving self-concept or self-esteem
(Atwood & Osgood, 1987; Martin & Osgood, 1987; Vorrath & Brendtro, 1985;
Wasmund, 1988). However, the trustworthiness of the results of numerous studies were
generally undermined by serious methodological flaws, such as the absence of a control
group. Significant reduction in recidivism was less likely to be found in the more
rigorously controlled studies (Garrett, 1985; Gottfredson, 1987).

This mixed picture is perhaps not surprising given that many mutual help
programs for antisocial youth or adults face two significant problems. First, Brendtro and
Ness (1982) cited a "widespread abuse of confrontation" (e.g., "harassment, name-
calling, screaming in someone's face, hostile profanity, and physical intimidation," p.322). Second, Yochelson and Samenow (1976, 1977) found that in therapeutic
community groups for criminals at Saint Elizabeths hospital in Washington, DC,
"helping" mainly meant keeping quiet about a fellow group member's rule violation or
lying on behalf of a group member to help him cover up a crime. These two problems
suggest that the peer-helping approach may not adequately address the challenges
represented by the negative youth culture and helping-skill limitations of antisocial youth.

Carducci (1980) argued that the effectiveness of such programs is undermined
from the outset by the youth's limitations. Carducci observed that such youth are
generally: first, morally immature, that is, "frequently at a stage of arrested moral/
ethical/social/emotional development in which he is fixated at a level of getting his own
throbbery needs met, regardless of effects on others" (p.157); second, cognitively
distorted, for example, using "the defense mechanism of [externalization] ... in which
[youths] blame others for their misbehavior" (p.157); and third, socially unskilled in
social problem-solving, that is, "do not know what specific steps, on their part or the part
of the owner of the problem, will result in its being solved" (p.158). The research
literature, reviewed next, provides striking corroboration for Carducci's observations.

Limitations of Antisocial Youth

Following Carducci's observations, the limitations of antisocial youth will be reviewed in terms of: sociomoral developmental delays (immature moral judgment, age-inappropriate egocentric bias); social-cognitive deficiencies and distortions; and social skill deficiencies.

Sociomoral Developmental Delays

Recently, researchers have emphasized the need to address developmental issues in the treatment of psychopathology in children and adolescents (Kendall & Panichellis-Mindel, 1995; Kovacs & Lohr, 1995). According to cognitive-developmental theory (e.g., Kohlberg, 1984), a primary developmental issue is the role of cognition in the motivation of moral or antisocial behavior. This theory postulates that antisocial behavior is attributable at least in part to sociomoral developmental delay, that is, the persistence beyond early childhood of (a) immature or superficial moral judgment and (b) a pronounced degree of "me-centeredness" (Lickona, 1983) or egocentric bias.

Delay as prolonged immaturity in stage of moral judgment. In cognitive-developmental theory, moral development involves a "construction" of progressively mature moral meaning. Kohlberg concluded that due to this constructive process, a cross-culturally standard sequence of stage in moral development can be identified (Kohlberg, 1971, 1984). Specifically, Kohlberg (1971) developed six hierarchically ordered stages of moral development. Gibbs, Basinger and Fuller (1992) have adapted Kohlberg's Stages 1 through 4 to develop a neo-Kohlbergian typology. In this typology,
Stages 1 and 2 represent immature or superficial moral judgment whereas Stages 3 and 4 represent mature or profound moral judgment.

The progression from superficial to mature stages of moral judgment has been found in longitudinal studies (Colby, Kohlberg, Gibbs & Lieberman, 1983; Page, 1981; Walker, 1989) and cross-cultural research. In a review of Kohlbergian moral judgment studies in 27 countries, Snarey (1985) concluded that Kohlberg's stages 1-4 are "represented in a wide range of groups" (p.218). Kohlberg (1984) emphasized the mediating role of social interaction in this stage development: "If moral development is fundamentally a process of the restructuring of modes of role-taking, then the fundamental social inputs stimulating moral development may be termed 'role-taking opportunities'" (p.74).

Hence, children who lack such role-taking opportunities may not be able to construct a mature (i.e., at least Stage 3) level of moral reasoning, and are left with a superficial or pragmatic world view (e.g., Stage 2). Such developmentally delayed youths may be prone to behavior that is antisocial, given the size, strength, independence, sexual impulses, and ego capabilities of adolescents. Controlled comparisons of antisocial children or adolescents with normal peers (Bears & Richards, 1981; Blasi, 1980; Campagna & Harter, 1975; Chandler & Moran, 1990; Gavaghan, Arnold & Gibbs, 1983; Jennings, Kiklenny, & Kohlberg, 1983; Nelson, Smith & Dodd, 1990; Trevethan & Walker, 1989) indicate that, at least on production measures, disproportionately higher percentages of antisocial youth are at Stage 2.

Delay as persistent and pronounced egocentric bias. Another developmental
delay in antisocial youth is the persistence into adolescence of a strong "me-centeredness" or egocentric bias. Egocentric bias is a natural feature of thought and behavior in early childhood. In fact, Damon (1977) found that young children's reasoning on distributive justice tasks confuses fairness with their own desires (e.g., "I should get it because I want it"). With ongoing social perspective-taking and maturing of working memory, egocentric bias and other centration tendencies normally decline but do not disappear altogether. This decline is markedly less evident in antisocial youth. Their egocentric bias is so pronounced that their perspective-taking capacities resemble those of children half their age (Chandler, 1973; Lee & Prentice, 1988).

Social Cognitive Deficiencies and Distortions

Kendall (1985, 1991) makes a distinction between cognitive deficiencies and cognitive distortions. Cognitive deficiencies describe a lack or insufficient amount of cognitive activity in situations where mental activity would be useful or beneficial to the individual's adjustment. This lack of cognitive activity can be seen in absence of problem solving, perspective taking, and planning, for example, and is associated with a lack of verbal mediation and lack of self-control as well (Kendall & MacDonald, 1993).

Cognitive distortions, on the other hand, refer not to lack of cognitive activity, but to an active albeit "crooked" thinking process. Cognitive processing is occurring, but the thinking is in some way inaccurate or non-veridical. Numerous deficiencies and distortions found in antisocial youth are described below.

function of private speech in compliance and subsequently in self-guided activity was first studied experimentally by Vygotsky (1987/1934) and Luria (1961), and subsequently by Mischel (1974), who investigated the cognitive strategies children use to resist temptation during delay-of-gratification tasks. Mischel (1983) concluded that a child's ability to resist temptation was predicted more by "what is in the child's head" (verbal thought or self-statements) than by "what is in the situation" (p.20). Other investigators have also found that self-statements can shape emotions or modify arousal levels (Kenardy, Evans, & Oei, 1989; Rimm & Litvak, 1969; Warren, Zgourides, & Englert, 1990).

Spivack and Shure (1974, 1989), in studying the role of verbal thought in mediating action, found that children rated high in social adjustment were better at describing strategies for resolving social conflict situations. In particular, the failure of under-controlled children and adolescents to anticipate the consequences of their actions for others (to perspective-take) represents an overlap between their cognitive deficiencies and their moral developmental delays (specifically, pronounced egocentric bias).

Deficiencies in moral self-relevance. In a comprehensive review, Blasi (1980) concluded that the relationship between moral judgment maturity and moral behavior was modest. As a result, Blasi (1984) stressed the importance of mediating variables within this relationship, particularly self-concept. Moral behavior need not necessarily follow from mature moral judgment if morality is not important or relevant to one's self-concept.

Moral self-relevance has been found to impact upon moral behavior in mainstream adolescents. Arnold (1993) found that moral self-relevance accounted for a
significant proportion of variance in antisocial behavior (as assessed by teachers) beyond that accounted for by moral judgment maturity and moral motivation. In general, antisocial adolescents reasoned at lower stages of moral judgment maturity, rated fewer moral concerns as important to their self-concept, and did not identify closely with moral traits.

Cognitive Distortions and aggressive behavior. Impulsivity and other cognitive deficiency-related problems may not lead to consistently antisocial or aggressive behavior unless cognitive distortions are also present. Cognitive distortions are inaccurate or rationalizing attitudes, thoughts, or beliefs concerning one's own or others' social behavior (Beck, 1976; Ellis, 1977; Gibbs, 1991, 1993, 1994; Yochelson & Samenow, 1976, 1977). Distortions, inaccuracies, or rationalizations are characterized mainly as processing biases in information processing theory (e.g., Dodge, 1986), which in general conceptualizes cognition not as mature or immature structures (as in cognitive-developmental theory) so much as accurate or distorted schemata/processing tendencies that mediate between incoming informational stimuli and behavioral responses. Deficits and distortions may characterize both general schemata (or "knowledge structures") and particular steps that comprise the ongoing processing of social information, that is, encoding, mental representation, goal clarification, accessing and generating of potential responses, evaluating responses, selecting a response, and enactment of response (Crick & Dodge, 1994; Dodge, 1993).

Barriga, Harrold, Stinson, Liau, and Gibbs (1998) classified cognitive distortion or "thinking errors" in terms of Gibbs and Potter's (1992) four-fold typology: Self-
Centered, Assuming the Worst, Blaming Others, and Minimizing/Mislabeling. The first category, Self-Centered, is termed a "primary" cognitive distortion and includes self-centered attitudes, thoughts and beliefs which stem from egocentric bias. The latter three categories are termed "secondary distortions" and have been described as pre- or post-transgression rationalizations that serve to neutralize conscience and guilt and thereby to prevent damage to self-image following antisocial behavior (Sykes & Matza, 1957).

Similarly, Gibbs (1993) suggested that secondary distortions reduce the stresses from the consequences of the primary distortions. Two such stresses that can stem from one's harm to others are: empathy-based guilt, and cognitive dissonance between harmful actions and a self-concept as one who does not unjustifiably harm others. These categories are elaborated below.

1. **Self-Centered**: According status to one's own views, expectations, needs, rights, immediate feelings, and desires to such an extent that legitimate views, etc. of others (or even one's own long-term best interest) are scarcely considered or are disregarded altogether.

2. **Blaming Others**: Misattributing blame for one's harmful actions to outside sources, especially to another person, a group, or a momentary aberration (one was drunk, high, in a bad mood, etc.), or misattributing blame for one's victimization or other misfortune to innocent others.

3. **Minimizing/Mislabeling**: Depicting antisocial behavior as causing no real harm, or as being acceptable or even admirable; or referring to others with belittling or dehumanizing labels.
4. **Assuming the Worst**: Gratuitously attributing hostile intention to others; considering a worst-case scenario for a social situation as if it were inevitable; or assuming that improvement is impossible in one's own or others' behavior.

These cognitive distortions are consistent with a great deal of research on antisocial youth. For example, Assuming the Worst includes the gratuitous attribution of hostile intentions to others, an area extensively researched by Dodge and associates (e.g., Dodge, 1980; Dodge, Price, Bachorowski, & Newman, 1990). An example of the functional value of Blaming Others in the neutralization of empathy-based guilt or dissonance with self-concept was given by Samenow (1984) in the recollection of a 17-year-old delinquent: "If I started to feel bad, I'd say to myself, 'tough rocks for him. He should have had his house locked better and the alarm on'" (p. 115). Researchers (Slaby & Guerra, 1988; Kunen, 1989) have found that antisocial youth use the minimizing/mislabeling distortion to depict antisocial behavior as acceptable and causing no real harm (e.g., "People who get beat up badly probably don't suffer a lot"). Barriga (1996) found higher levels for all four cognitive distortion among incarcerated delinquents vis-a-vis matched controls. Furthermore, each category correlated with archival and self-report measures of antisocial behavior (Liau, Barriga & Gibbs, 1998; Barriga, 1996).

**Social Skill Deficiencies**

"Social skills" typically refer to balanced and constructive behavior in difficult interpersonal situations. McFall (1982) defined social skills as "specific abilities that enable a person to perform competently at particular social tasks" (p. 23). Research on
social skills have generally found deficiencies among antisocial youths relative to control groups. Freedman, Rosenthal, Donahoe, Schlundt, and McFall (1978) found evidence of extensive social skill deficits or deficiencies among male incarcerated juvenile offenders as measured by the Adolescent Problems Inventory (API). Lower API scores were found not only for the delinquents overall, but especially for a delinquent subgroup that frequently violated institutional rules. Relations between social skill deficits and antisocial behavior were replicated by Dishion, Loeber, Stouthamer-Loeber, and Patterson (1984) but not by Hunter and Kelly (1986). Simonian, Tarnowski, and Gibbs (1991) corrected for a procedural flaw in the Hunter and Kelly study and used a streamlined and adapted version of the API, the IAP-SF (Gibbs, Potter, et al., 1995; Appendix B in Gibbs, Barriga, et al., 1995). Using the IAP-SF, Simonian et al. found that social skills did correlate inversely with numerous indices of antisocial behavior (most serious offense committed, number of correctional facility placements, self-reported alcohol problems, and AWOL attempts and successes). Also, using the IAP-SF, Leeman et al. (1993) found that social skills correlated inversely with frequently or unexcused school absences, preincarceration offenses, institutional misconduct, and institutional incident reports.

REMEDIATING THE LIMITATIONS OF ANTISOCIAL YOUTH:

SINGLE COMPONENT PROGRAMS

Given the limitations in sociomoral delay, social cognitive distortion and social skills deficiency, there is a need to equip antisocial youth with the skills necessary to help one another. Agee and McWilliams (1984) argued that:

The violent juvenile offender, with his long history of
sabotaging attempts at intervention and poor interpersonal relationships, would seem to be about as likely to benefit from a therapeutic community as a schizophrenic. The vital difference is that while the interpersonal skills of the violent juvenile offender are characteristically poor, the majority of them can be taught the behaviors to be therapeutic with each other (p. 286).

Kazdin (1995a) emphasizes the need for such teaching to be broad-based and multicomponent in light of the multifaceted character of the limitations of such youth. The preponderance of the teaching or therapeutic interventions, have been single-component; perhaps predictably, like peer-helping programs, other single-component programs have had mixed success. These programs are reviewed in the following sections.

**Moral-Cognitive Interventions**

Theoretically, moral-judgment delayed youths need an enriched environment of social perspective-taking opportunity to stimulate them to catch up to an age-appropriate level of moral judgment (Gibbs, 1993). Blatt and Kohlberg (1985) discovered the utility of a group process of dilemma discussion in providing this enriched environment to accelerate moral stage development. The dilemma discussion process has proven to be successful in promoting at least half-stage moral development in elementary and high school populations (e.g., Bear, Shever, & Fulton, 1983; Selman & Lieberman, 1975) as well as in deviant institutionalized populations (e.g., Arbuthnot, 1984; Fleetwood & Parish, 1976; Gibbs, Arnold, Ahlborn, & Cheesman, 1984; Hickey, 1972).

However, although moral-cognitive interventions generally seem to stimulate more mature moral judgment, the reduction of antisocial behavior does not necessarily follow (Arbuthnot & Gordon, 1986; Gibbs et al., 1984; Niles, 1986; Power, Higgins, &
Kohlberg, 1989). Interestingly, the one study (Arbuthnot & Gordon, 1986) that did result in behavioral in addition to moral judgment gains incorporated into its intervention two preintervention weeks devoted to exercises designed to promote group cohesiveness, openness, and rapport. Arbuthnot and Gordon concluded that a comprehensive program should be multicomponential, for example, should encompass not only moral discussion, but also therapeutic techniques to promote group cohesion and mutual caring and to develop "social skills (for translation of new reasoning into action)" (p.215). Insofar as Arbuthnot and Gordon's own intervention included such techniques, their singular results in terms of conduct gains may be partly attributable to social skills training. On the other hand, social skills training used exclusively has not been found to produce durable behavioral effects (see discussion below on social skills training interventions; Hollin, 1990; Long & Sherer, 1985; but cf. Kazdin, Bass, Siegel, & Thomas, 1989).

Social-Cognitive Deficiency/ Distortion Interventions

The research on the role of verbal thought in self-control has led to interventions with children evidencing self-control problems and other behavioral disorders. Meichenbaum's (1986) self-instructional training and related programs have been applied to hyperactivity or impulsivity problems, problematic classroom behaviors (Monahan & O'Leary, 1971; Robin, Armel, & O'Leary, 1975), difficulty in resisting temptation (Hartig & Kanfer, 1973), anxiety (Barlow & Cerny, 1988; Meichenbaum, Gilmore, & Fedoravicus, 1971), and anger (Lochman, Burch, Curry, & Lampron, 1984; Lochman, Nelson, & Sims, 1981; Lochman, White, & Wayland, 1991).

In 1975, Novaco applied the self-instructional approach to chronically angry
adolescents. Novaco's intervention program consisted partly of training aggressive adolescents to use anger-inhibiting self-statements or self-talk, such as "I'm not going to let him get to me." Evaluation studies have generally found reductions in anger, aggression, or both (Coats, 1979; McCullogh, Huntsinger & Nay, 1977; Moon & Eisler, 1983; Schlichter & Horan, 1981). Subsequent researchers have expanded upon and refined Novaco's techniques (Feindler, 1991; Feindler & Ecton, 1986; Gibbs, Potter, et al., 1995; Goldstein & Glick, 1987).

Most of the intervention initiatives inspired by the cognitive literature have addressed problems such as anxiety or depression (e.g., Beck, 1977; Ellis, 1977), the internalizing disorders. A growing body of literature, however, has applied cognitive therapy techniques to people with externalizing disorders, that is, impulsivity/hyperactivity, aggression, or other antisocial behaviors (Beck & Freeman, 1980; Guerra & Slaby, 1990; Kahn & Lafond, 1988; Vorrath & Brendtro, 1985; Yochelson & Samenow, 1976, 1977). However, such initiatives with antisocial youth are plagued with the lack of treatment generalization and lack of maintenance effects (Kendall & MacDonald, 1993; Kazdin, 1995a). For example, lack of maintenance after 6 months was seen in Kendall, Reber, McClear, Epps, and Ronan's (1990) study.

Social Skills Training Interventions

Social skills training interventions have shown positive but mixed results in affecting behavior. Several studies have shown significant behavioral changes (Sarason & Ganzer, 1969, 1973; Furguson, 1977; Chandler, 1973; Chalmers & Townsend, 1990) but others have not (Ollendick & Hersen, 1979; Chandler, Greenspan, & Barenboim,
1974). Some studies have shown conflicting results depending on the measure of behavior (Camp, Blom, Herbert, & van Doorninck, 1977; Drummond, 1976). Goldstein (1993) in a review of social skills training interventions stated that in general, these interventions were successful in skill acquisition. However, the results of the studies in terms of transfer and maintenance have not been encouraging.

EQUIP: A MULTI-COMPONENT PROGRAM INTEGRATING PEER-HELPING AND SKILLS-TRAINING APPROACHES

The mixed results of the single-component programs suggest the need for multicomponent interventions. EQUIP, a multicomponent group treatment program for adolescents with antisocial behavior problems, is designed both to motivate and to teach such adolescents how to help one another think and act responsibly. EQUIP is multicomponential in two senses. First, it combines peer-helping with skills-training approaches, specifically by helping youth to develop skills in order to facilitate their ability to help group members. Providing a peer-helping rationale for skills training contributes to learning motivation: Litwack (1976) found that juveniles were better motivated to acquire skills when they were expected to use them later to help other adolescents. The peer-helping component of EQUIP is highly structured; specifically, group members report self-serving cognitive distortions and apply learned skills to help one another correct those distortions and associated problem behaviors.

Second, the skills taught in EQUIP are themselves multicomponential, addressing the multifaceted limitations reviewed. The EQUIP skills derive from cognitive-developmental, social information-processing, and other perspectives, and are adapted
from skills training programs such as Aggression Replacement Training, PREPARE curriculum, and cognitive therapy for offenders (see Goldstein, 1988; Goldstein & Glick, 1987; Yochelson & Samenow, 1977).

Essentially, then, EQUIP incorporates a skills or psychoeducational curriculum into a peer-helping group format. This group format, adapted from PPC, entails 7-9 youths who meet daily in meetings lasting between 1 and 1.5 hours. The prosocial character of the group is cultivated at mutual help meetings through Positive Peer Culture (PPC) techniques such as relabelling, life stories, and redirection of negative group members (Vorrath & Brendtro, 1985), to which EQUIP adds techniques such as self-monitoring of behavior through daily logs. Furthermore, in EQUIP, the modified mutual help meeting entails additional procedural structure. Group members report problems not only in terms of PPC problem names but also in terms of the underlying thinking errors; in addition, group members are explicitly encouraged to apply appropriate learned helping skills in order to accomplish constructive and effective problem solving.

Once the group is sufficiently motivated to be receptive (Gibbs, Potter et al. recommend about two to four weeks), "equipment" meetings are initiated in order to equip the group with helping skills; insofar as these equipment meetings promote caring, the meetings in turn facilitate the prosocial motivation of group members and the prosocial development of the group. Hence, equipment meetings both presuppose and contribute to prosocially oriented mutual help meetings. The EQUIP equipment meeting curriculum takes about 10 weeks to complete for groups that devote 2 of their 5 meetings each week to "equipment" activity. Overall, subjects participate in the EQUIP program
Evaluation of a Preliminary Version of EQUIP

Leeman, Gibbs, & Fuller (1992) evaluated a preliminary version of the EQUIP program. Participating as subjects were 57 male juvenile offenders at a medium-security correctional facility maintained by the juvenile corrections department of a Midwestern state. EQUIP was found to stimulate substantial institutional and postrelease conduct gains. Institutional conduct gains were highly significant for the EQUIP group, relative to the control groups, in terms of self-reported misconduct, staff-filed incident reports, and unexcused absences from school. The program's impact was also evident 12 months after subjects' release. The recidivism rate for EQUIP participants remained low and stable, whereas the likelihood of recidivism for the untreated subjects climbed.
FACTORS PREDICTING TREATMENT OUTCOME AND ATTRITION

Processes or Mediating Variables in EQUIP

Although the ultimate aim of any intervention is to reduce antisocial behavior, an important secondary aim is to study the variables that mediate change in antisocial behavior. Recently, many researchers have advocated the study of the processes of therapy; such processes are central both to describe the structure and function of events as well as to predict changes that appear at the end of treatment (Kazdin, 1995b; Copeland, 1982; Kendall & MacDonald, 1993). In the EQUIP program, important mediating variables include: moral judgment, moral self-relevance, social-cognitive distortions, and social skills. Predictive of favorable treatment outcomes are a more mature level of moral judgment, increased moral self-relevance, reduced cognitive distortions and more mature interpersonal social skills.

In the Leeman et al. study, the EQUIP group evidenced significant gains in social skills relative to the control groups. The EQUIP group's gains in moral judgment were not significant; however, these gains did correlate inversely at a significant level with recidivism at 12 months (but not at 6 months, suggesting a possible sleeper effect). Hence, Leeman et al. (1993) suggested that the moral judgment component be retained in the EQUIP program insofar as it appears to serve as a foundation for mature social behavior in a general and long-term sense. The study did not evaluate changes in social-cognitive distortion.

Factors Influencing Attrition

The loss of subjects over the course of an intervention program is virtually
inevitable. In fact, one can expect a "decay curve" in which the number of persons who drop out of the study increases as a function of time (Phillips, 1985). Hence, attrition presents a problem to intervention studies as subjects who drop out may differ in important ways from those who remain in a study. Kazdin (1995) states that this problem of attrition has special significance as a topic in therapy research. Accordingly, one of the secondary aims of this study, we investigated factors that predict attrition.

**Presence of noncompliant behaviors during therapy.** Although very little research has been done on the phenomenon of attrition, a few investigators have tried to examine the reasons for, and predictors of dropout or attrition in therapy. The general consensus seems to be that the characteristics of attrition are unaffected by a wide number of subject characteristics such as age, sex, ethnic status, and diagnostic grouping (Phillips, 1985; Hunt, 1992; Oei & Kazmierczak, 1997). Numerous research studies have failed to find characteristics in patient populations that detect the potential for early termination (Garfield, 1978).

Consequently, Phillips suggests that it is no longer useful to discuss research on patient characteristics that favor staying in therapy; instead, we should investigate how the therapeutic system operates overall in the clinic. For instance, Oei and Kazmierczak (1997) investigated therapists' ratings of client participation during therapy sessions. They found that dropouts participated significantly less than completers during therapy sessions. Hence, noncompliance during therapy sessions may be a good predictor of attrition.
GOALS AND HYPOTHESES

The primary aim of the study was to evaluate the importance of the modified peer-helping approach in the EQUIP program. The experimental and control groups were evaluated in terms of archival and self-report measures. Given the success of an evaluation of a preliminary version of EQUIP (Leeman et al., 1993) and the limitations of single-component interventions described above, our first hypothesis was that relative to the group without structured peer-helping, the group in the EQUIP program with structured peer-helping would evidence significant improvements in terms of archival and self-report measures.

This intervention study had three secondary aims. The first was to investigate the processes or mediating variables involved in the EQUIP program. The mediating variables investigated were moral reasoning maturity, moral self-relevance, social-cognitive distortions, and social skills. The second was to investigate relations between these mediating variables and treatment outcome. Finally, we wanted to investigate whether attrition is influenced by compliance during group sessions as well as to confirm previous research which indicates that subject characteristics are not predictive of attrition.

Our second hypothesis was that relative to the control group, the EQUIP group would evidence significant improvements in the mediating variables investigated, i.e., moral reasoning maturity, moral self-relevance, social-cognitive distortions, and social skills. Our third hypothesis was that the mediating variables would be predictive of favorable treatment outcome. In particular, a high level of moral reasoning maturity, a
high level of moral self-relevance, a low level of social-cognitive distortions, and a high level of social skills would be predictive of favorable treatment outcome. Our fourth hypothesis was that attrition would only be influenced by compliance during therapy sessions and not by pre-treatment subject characteristics.

The study differed from the Leeman et al. study in five ways. First, the present study involved a dismantling strategy where the control group receives all of the components of EQUIP except structured peer-helping. The Leeman et al. study was a "treatment package" study (Kazdin, 1995b, p.20) where one control group did not receive any treatment and another control group just received a motivational message. Second, subjects in the Leeman et al. study were incarcerated over a six month period. Subjects in this study were only at the institution for 6-8 weeks. Third, subjects in this study included young adults (age range = 16 to 26; \(M=19.96\)), whereas in the Leeman et al. study, subjects were primarily juveniles, aged 15 through 18 (\(M=16.0\)). Fourth, mediating variables not included in the Leeman et al. study such as moral self-relevance and self-serving cognitive distortion were examined. Fifth, the study investigated whether attrition can be predicted by clients' noncompliance during therapy sessions.

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CHAPTER 2

METHODS

Subjects

The subjects in this study were 58 male felony offenders aged 16-26 (M= 19.96 years) residing at a Midwestern treatment facility for young men involved in the criminal justice system. 33 of them were African-American (57%), 24 Caucasian (41%) and 1 Pacific-Islander (2%). Offenses that subjects had committed include: drug trafficking, drug abuse, grand theft, felonious assault and robbery. The facility does not accept predatory sex offenders or arsonists.

The subjects were randomly assigned into two criterion groups: an experimental group and a comparison group. Out of the 58 subjects, 39 successfully completed the program, 13 did not complete the program (they were either asked to leave or left on their own), and 6 subjects left officially for various reasons (e.g., transferred to another institution, or released early by their parole officers). Out of the 39 subjects who completed the program, 15 comprised the experimental group, whereas 24 comprised the comparison group. The activities of the two different groups are described in the Procedure section.

Measures of Conduct
The Young Adult Self-Report Form (YASR; Achenbach, 1991c). The YASR resembles the Youth Self-Report Form (YSR; Achenbach 1991b) but replaces some YSR items with age-appropriate items and adds other items concerning education, jobs, marital and similar relationships, and substance abuse. The YASR has 130 problem items plus 20 competence and social desirability items that are scored on three-step scales, i.e., each item is scored 0 = not true (as far as you know), 1 = somewhat or sometimes true, or 2 = very true or often true. Achenbach, Howell, McConaughy, and Stranger (1995) report favorable reliability and validity for the YASR. For instance, the average internal consistency of the various scales in the measures was 0.84, and one-week test-retest correlations averaged 0.86 across the various scales.

We utilized the 130 problem items that comprise the Problem Scales in order to derive self-reported Externalizing and Internalizing Scale scores. Achenbach's (1991c) measures are designed to provide a more balanced assessment of problem behaviors in youth than is often encountered in psychiatric settings where there is typically a heavy reliance on the clinical interview (Achenbach, 1995). Evidence suggests that such clinical judgments are highly vulnerable to illusory correlations, overconfidence, and self-confirming diagnoses (Leary & Maddux, 1987).

Leeman et al. self-report questionnaires. For the sake of consistency, the self-report misconduct measures that had been used in the Leeman et al. (1993) study were administered to subjects in this study. Subjects were asked to complete pre-institutionalization and institutional misconduct measures. The pre-institutionalization measure (see Appendix B) investigates the youths' behavior for the year prior to
institutionalization and entails 26 items (e.g., whether or number of times a subject hit
someone with a weapon, broke into a house or building, took drugs, etc.; adapted from
Eliot et al., 1983). The institutional misconduct measure (Appendix C) inquires of the
previous month and entails 11 items (e.g., whether or number of times the subject
damaged something, was involved in a fight, defied staff, took drugs, etc.; adapted from
Gold, 1970, using Elliot et al.’s questionnaire format). Reliability and validity of the
questionnaires are acceptable (Elliot et al., 1983; Gold, 1970).

Archival. Archival data were obtained to monitor the subjects' misconduct during
institutionalization, and to assess compliance during therapy sessions. Institutional
misconduct measures were based on disciplinary incident reports maintained by the
institution's staff members. Archival data were also used to assess clients' compliance or
disruptive behavior during therapy sessions. These ratings were completed by the
therapists after every session.

Measures of Mediating Variables

Moral Judgment: The Sociomoral Reflection Measure-Short Form (SRM-SF; Gibbs, Basinger, & Fuller, 1992; see Appendix D). The SRM-SF is a group-
administered, paper-and-pencil measure of moral judgment maturity. The SRM-SF
contains 11 items: Items 1-4 pertain to the values of contract and truth; 5 and 6, to the
value of affiliation; 7 and 8, to life; 9 and 10, to property and law; and, item 11 to legal
justice. Each item entails two questions, to evaluate and to justify the importance of each
value. The justifications are then scored for stage of moral reasoning. Protocols
producing fewer than seven scorable item responses were found to evidence markedly
poorer test-retest reliability (Basinger, 1990) and, hence, are considered unscorable. The SRM-SF provides a moral judgment maturity score that ranges from 1.00 (Stage 1) to 4.00 (Stage 4); the SRM-SF scale also can be represented in terms of a 10-level global stage typology, for example, 2.26-2.49 = 2(3), 2.50-2.74 = 3(2), and 2.75-3.25 = 3. Where global stage represents transitional levels, the preponderant stage is indicated first with the minor stage following in parentheses.

The SRM-SF shows acceptable levels of test-retest reliability and internal consistency for fourth through 12th graders, university students, and delinquent males (Basinger, 1990; Basinger, Gibbs, & Fuller, 1991; Gibbs, Basinger, & Fuller, 1992). For instance, test-retest reliability and Cronbach’s Alpha for all samples combined was 0.88 and 0.92, respectively. In addition, the SRM-SF has evidenced acceptable concurrent validity with the Moral Judgment Interview (MJI; Colby & Kohlberg, 1987) and convergent validity with age, verbal intelligence, and socioeconomic status for these samples. This measure has also been shown to discriminate between delinquent and nondelinquent male adolescents on levels of moral judgment (Basinger, 1990; Basinger, Gibbs, & Fuller, 1991).

Moral Self-Relevance: The Adapted Good-Self Assessment (GSA; Arnold, 1993; adapted from Harter & Monsour; see Appendix E). The adapted Good-Self Assessment measures moral self-relevance, i.e., the centrality to the self-concept of moral versus nonmoral traits. In Arnold's (1993) adaptation, the measure consisted of a diagram of three concentric circles, representing varying degrees of centrality to the self-concept, and a small ziploc bag that contained 16 gummed labels naming an equal number of
positive moral and nonmoral qualities. Subjects placed the labels on the diagram to reflect the relative importance of each trait to their self-concept. A subject's moral self-relevance was then assessed by awarding one point for each moral quality that was named as a "most important" quality (2 points possible) and three points if a moral quality was identified as the subject's one "crucial" quality, resulting in a six-point ordinal scale (ranging from 0 to 5) representing degree of identification with moral values.

We used an adaptation of the GSA as developed by Barriga (1996) which provides a pencil-and-paper measure of moral self-relevance. Subjects were presented with a diagram of concentric circles and then were asked to rate along a four-point Likert scale (from "not important to me" to "extremely important to me"; these labels were also incorporated into the concentric circle diagram) the importance of each moral and nonmoral trait to their self-concept. To reduce ambiguity in meaning, each moral and nonmoral trait was described with two synonyms such as "honest or truthful" and "athletic or agile." The moral traits (considerate, honest, helpful, sympathetic, generous, sincere, fair, and dependable) were evenly interspersed throughout the questionnaire with the nonmoral traits (imaginative, industrious, outgoing, athletic, funny, logical, independent, and energetic).

An effort was made to make the moral and nonmoral traits equally desirable; nonetheless, response bias posed a challenge to accurate measurement. Barriga's solution was simply to subtract the averaged nonmoral item scores from the averaged moral item scores. Thus, regardless of general endorsement frequency, a subject would receive a positive score if moral traits were relatively more important to their self-concept.
nonmoral traits, and conversely, a negative score if nonmoral traits were relatively more important than moral traits. This further adaptation has revealed adequate internal consistency. Alphas for the moral and nonmoral items were .87 and .65, respectively. A confirmatory factor analyses also indicated that there were two factors: moral and nonmoral traits (Barriga, 1996).

**Cognitive Distortions: The How I Think Questionnaire** (HIT; Gibbs, Barriga, & Potter, 1992; see Appendix F and Appendix G). The HIT is designed to measure self-serving cognitive distortions as they relate to externalizing problem behavior. Subjects respond along a 6-point Likert scale (from agree strongly to disagree strongly). Individual item responses of 4.0 (slightly agree) or higher indicate cognitive distortion whereas 3.0 (slightly disagree) or lower indicate non-distortion. The HIT has 54 items, 39 of which state nonveridical attitudes, thoughts or beliefs, e.g., "If someone is careless enough to lose a wallet, they deserve to have it stolen." Fifteen items are control items ("Anomalous responding" and positive fillers) designed to encourage full use of the response scale and to camouflage the distortion items. An Anomalous Responding (AR) Scale consisting of eight control items was designed to screen for disingenuous, incompetent, or otherwise suspect responding. For example, disagreement with the item "I have done things that hurt other people," can be interpreted as implausible and therefore inaccurate (cf. Crowne & Marlowe, 1964). Protocols evidencing Anomalous Responding mean scores above 4.0 (the AR control items are reverse scored so that higher scores reflect extensive and/or pronounced Anomalous Responding) are considered suspect and shall be excluded from data analyses (Barriga et al., 1996; cf. 29
The seven remaining items are "positive fillers" comprised of prosocial statements, e.g., "When friends need you, you should be there for them" (cf. Achenbach, 1991-b, p.119).

Each of the 39 cognitive distortion items represents one or another of Gibbs and Potter's four categories: Self-Centered, Blaming Others, Minimizing/Mislabeling, and Assuming the Worst. In addition, these items refer to one or another of four categories of antisocial behavior derived from the conduct disorder and oppositional-defiant disorder syndromes listed in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 1994): disrespect for rules, laws, or authorities (i.e., Opposition-Defiance); Physical Aggression; Lying; and Stealing. For example, the item "People force me to lie when they ask me too many questions" represents a Blaming Others cognitive distortion item applied to a Lying behavioral referent.

To insure comparable content and breadth, the items in each cognitive distortion category collectively apply to all four behavioral referent categories. Specifically, each cognitive distortion category contains at least two items referring to a given behavioral referent category. Hence, HIT items were generated according to a cognitive distortion by behavioral referent, 4 X 4 design. The four cognitive distortion and four behavioral referent categories define eight HIT subscales. Psychology graduate students served as independent judges for item subscale inclusion (Barriga & Gibbs, 1996).

Barriga and Gibbs (1996) found that the HIT generally evidenced good reliability and validity. The HIT's test-retest reliability was .91 and its internal consistency was .96.
Its correlation of .55 with externalizing problem behaviors remained significant after controlling for internalizing disorders and it was able to discriminate a delinquent group from one of two comparison groups (Barriga & Gibbs, 1996; cf. Liau et al., 1998). The HIT requires fourth-grade reading level (Wampler, 1988).

Social Skills: Inventory of Adolescent Problems-Short Form (IAP-SF; see Appendix H; Gibbs, Swillinger, Simonian, Leeman, Rowland, & Jaycox, 1987). The IAP-SF is a 20-item imaginal role-play interview, adapted primarily from the Adolescents Problems Inventory (API), and secondarily from the Problems Inventory for Adolescent Girls (PIAG); both of which are longer social-skills assessment instruments (Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1978; Gaffney & McFall, 1981). The original API has been shown to have acceptable levels of reliability (test-retest, parallel form, interrater, internal consistency) and validity. Youths were asked, "What do you say and do now?" following each item or socially stressful situation, e.g., dealing with a taunting or hostile peer, or with a friend applying deviant peer pressure.

Responses were tape recorded and transcripts were made. Responses were scored on a scale from 0 to 8; highly socially skilled responses, which are calm, forthright, and constructive, were rated "8." These elements were absent from responses rated "0" (e.g., respondent would readily engage in a fight or a deviant behavior). Mean item score is used as the protocol summary score, with 6.00 representing a non-deficit level of social skills functioning. In addition to the protocol summary score, two subscale scores, Anger Provocation and Peer Pressure, are computed (cf. Simonian et al., 1991). The measure's interrater reliability was .99 and construct validity was supported by a recent study.
(Simonian et al., 1991) that found the IAP-SF to be associated with various indices of antisocial behavior (e.g., most serious offense, number of correlational institutional placements, substance abuse, and AWOL attempts). Internal consistency ranged from .42 to .73 for all factor item-total comparisons (Simonian et al., 1991).

Credibility: Client satisfaction survey. The influence of a person's beliefs and expectancies for improvement represent an important ingredient in any kind of treatment (Kazdin, 1980). When the goal of treatment outcome research is to determine whether the effects of treatment result from ingredients particular to treatment, it is essential to rule out the effects of merely participating in treatment and the expectancies for success generated by such participation. One of the effects is the credibility of treatment or the expectancies for success generated in the clients by the treatment. Research suggests that bona fide treatments may be more credible and generate greater expectancies for success than control procedures (Kazdin, 1980). To investigate comparability of treatment credibility, i.e., to determine whether there are any differences in subjects' belief in the power of treatment between the experimental and comparison groups, subjects were asked a question about their expectancies of the treatments to which they have been randomly assigned. The question was as follows: "Do you think that the program you've been assigned to will help you to overcome the problems that brought you here?" The subjects responded on a 6-point Likert scale with 1 = won't be helpful at all and 6 = will be very helpful.

Procedure

Random assignment. Subjects were randomly assigned to either the EQUIP or
the comparison group. An alternating method was used for random assignment, i.e., experimental assignment then control then experimental and so on. The subjects were told that they would be in the same program most of the time except for an hour, once or twice a week, where they would be placed in separate groups. The subjects were only told that they would be separated so that the staff can work with smaller groups for that hour.

**EQUIP vs. control (partial EQUIP) treatment.** Both groups received a total of about 18 hours of the skills taught in EQUIP, i.e., the skills which address sociomoral developmental delays, social cognitive deficiencies and distortions, and social skill deficiencies. These skills were introduced at hour-long meetings held about two or three times a week. However, only the experimental group received the structured peer-helping treatment format (see the Mutual Help Checklist in Appendix A). These meetings were an hour long and held once or twice a week. During the same time periods, the control group would have a relatively unstructured version of a peer-helping meeting, i.e., a support group-like meeting in which clients discuss topics such as issues with staff and issues with each other.

At a single point in time, the institution had 10-15 subjects who were there for about 6-8 weeks. To accommodate the subjects' turnover rate, a new cycle of the EQUIP program was reinitiated every six weeks. Hence, it took about seven months to achieve the sample size of 58. Subjects' institutional status was followed very closely to help keep track of any attrition.

**Pretesting and Posttesting.** Pretesting was done prior to the meetings and
posttesting after about 5 weeks of EQUIP program meetings. The pretesting and posttesting included the administration of the behavioral measures (the YSR, and Leeman et al.'s self-report questionnaires), and the mediating variables (the SRM-SF, the adapted GSA, the HIT, and the IAP-SF). Institutional incident reports of the subjects were maintained by staff members.

**Treatment Integrity.** Numerous researchers have stated that an essential prerequisite of outcome research is to ensure the integrity of treatment, that is, that procedures are carried out as intended (Kazdin, 1995b, 1988; Yeaton & Sechrest, 1981). Numerous steps were taken to address treatment integrity. To begin with, carrying out the intended EQUIP procedures accurately was facilitated by their clear specificity in Gibbs, et al. (1995). Second, the institution's staff members received a training session in carrying out the EQUIP program that was run by the authors (Gibbs & Potter) on July 18, 1996. Third, once treatment had begun, three monitoring procedures were initiated.

First, staff members were asked to complete checklists (See Appendix A) as a review or self-evaluation after each session; these checklists helped to ensure that staff members had followed the necessary procedures in facilitating each session; in addition, these checklists also required staff members to identify subjects who were non-compliant, e.g., refused to participate in treatment. Second, clinical meetings were held bi-weekly or at least monthly to provide feedback. Third, clients were given a questionnaire asking them to evaluate the therapeutic quality of the group sessions (See Appendix I); this questionnaire was administered along with the other measures during posttesting; the purpose of the questionnaire was to ascertain whether the groups were functioning as
described in the manual.
CHAPTER 3

RESULTS

Data analyses were done to address the four hypotheses. First, to evaluate the importance of the peer-helping approach in the EQUIP program, the experimental group was compared to the control group with respect to gains in conduct upon completion of the program prior to release. For comparing the groups based on self-reported misconduct, an analysis of covariance of the posttest data was conducted using pretest self-reported misconduct as a covariate. For the institutional incident reports, an analysis of covariance was done with the mean number of incidents in the first two weeks as the pretest-period covariate. The mean number of incidents in the latter weeks (week 3 until the last week) of the program was used as the dependent variable.

The second hypothesis was that relative to the control group, the EQUIP group would evidence significant improvements in the mediating variables investigated, i.e., moral reasoning maturity, moral self-relevance, social-cognitive distortions, and social skills. To investigate this hypothesis, the experimental group was compared to the control group with respect to changes in the hypothesized mediating variables. Analyses of covariance using pretest scores as covariates were conducted to compare pre-post
gains in mediating variables between the groups.

The third hypothesis was that the mediating variables would be predictive of favorable treatment outcome. In particular, a high level of moral reasoning maturity, a high level of moral self-relevance, a low level of social-cognitive distortions, and a high level of social skills would be predictive of favorable conduct gains. To evaluate the impact of these mediating variables on treatment outcome, the following partial correlations were assessed: the correlations between the various mediating variables with posttest conduct variables (archival and self-report), partialling out the pretest conduct scores.

In regards to the fourth hypothesis, discriminant analyses were conducted to determine the factors that influence attrition. The analyses indicated if there were any differences between subjects who completed the program as compared to those who dropped out early.

PRELIMINARY ANALYSES
Correlational Analyses

As preliminary analyses, correlations of all the major variables (pretest and posttest measures of misconduct, and pretest and posttest measures of mediating variables, and compliance variables) were computed and are presented in Table I. Correlations are reported for the total sample because breakdown by criterion groups revealed highly similar correlation patterns. Due to the high number of correlations, only correlations that are significant at a 0.01 level or less are reported
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\(a = p<.01, \ b = p<.001\)


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a = p<.01, b = p<.001


Table 2. Zero-order correlations of all the major variables only for the subjects who successfully completed the EQUIP program.
Interrater reliability

As described in the Gibbs et al. (1992), the minimal standards for acceptable interrater reliability for the scoring of the moral judgment maturity measure (the SRM-SF) are as follows:

1) interrater correlation: \( r = .80 \);
2) mean absolute interrater discrepancy: .20 points;
3) global stage agreement within one interval: 80%;
4) exact global stage agreement: 50%.

30 protocols were scored by two independent raters to determine interrater reliability. The reliability results were found to be satisfactory in accordance to the criterion described above as follows: 1) \( r(30) = .89, p < .001 \); 2) mean absolute interrater discrepancy = .14; 3) global stage agreement within one interval = 97%; and 4) exact global stage agreement = 55%.

Treatment Credibility and Integrity Issues

Credibility. As discussed in Chapter 1, the goal of treatment outcome research is to determine whether the effects of treatment result from ingredients particular to treatment, thus making it essential to rule out effects of merely participating in treatment and the expectancies for success generated by such participation. Subjects’ responses to the client satisfaction survey (see Chapter 1) indicated no significant difference between the experimental group (\( M = 5.16 \)) and the control group (\( M = 5.24 \)). In other words, subjects in both groups had similar expectations of the treatments to which they had been randomly assigned.
Treatment Integrity. As described in Chapter 2, numerous steps were taken to ensure the integrity of treatment, i.e., that procedures were carried out as intended. Once treatment had begun, program integrity was assessed in the following ways: 1) staff members were asked to complete checklists as a review or self-evaluation after each session (Appendix A); 2) clinical meetings were held bi-weekly or at least monthly to provide feedback, and 3) clients were given a questionnaire asking them to evaluate the therapeutic quality of the group sessions (Appendix I; see chapter 2 for more detailed discussion).

We were able to adhere to those procedures fairly closely. Initially, the staff members completed the checklists following each session. However, after two months into the program, they were no longer diligent about completing those checklists. Nevertheless, the staff members filled out a group progress report after every session throughout the intervention. These progress reports indicated the topics that were covered during each session, and included a description of the level of compliance for each client during the session. Clinical meetings were held bi-weekly or at least once a month as planned. The means for subjects’ responses to the therapeutic quality questionnaire were $M = 3.78$ for the experimental group and $M = 3.91$ for the control group. The questionnaire utilized a 5-point Likert scale; hence a mean of “5” would suggest that the groups were functioning as planned, whereas a mean of “1” would suggest that the groups were not functioning as planned. Hence, the means we obtained suggest that the clients felt that the groups were functioning fairly well. Overall, given that steps were taken to ensure treatment integrity, there is reason to believe that the
EQUIP program was administered as outlined in the manual (Gibbs et al., 1992).

**GROUP DIFFERENCES**

**Behavioral Outcomes**

*Archival data.* In the analyses of covariance for the staff incident reports, the mean number of incidents in the first two weeks was used as the pretest-period covariate, and the mean number of incidents in the latter weeks (week 3 until the last week) of the program was used as the dependent variable. The adjusted mean incident report frequency for the experimental group was 1.01, whereas for the comparison group it was 2.04, $F(1,36) = 4.972, p < .05$ (see Figure 1).

*Self-report measure.* In terms of self-reported behavior, on both measures (the YASR and the Leeman et al. questionnaire), an analysis of covariance showed no significant difference between the groups (see Table 3).

**Mediating Variables**

Analyses of covariance indicated that for all the mediating variables investigated, i.e., moral reasoning maturity, moral self-relevance, social-cognitive distortions, and social-skills, none of these variables showed any significant difference between the groups (see Table 3).

Effect sizes (ES) were calculated for group differences for all the variables using the following formula:

$$ES = \frac{\text{Difference between the experimental and control groups' adjusted means}}{\text{Standard Deviation of the control group (average of the pre and post-test values)}}$$
Figure 1. Mean incident report frequencies for the experimental and comparison groups.
Pretest-posttest analyses on the total sample

Due to the lack of significant differences between the experimental and comparison groups on the various mediating variables, both groups were combined and paired t-test analyses were done to investigate if there were any pretest-posttest differences in the total sample (see Table 4). There were significant pretest-posttest differences in two of the variables: there was a significant decrease in self-reported internalizing problem behaviors ($t(32) = 3.08, p < .01$), and a significant increase in social skills ($t(33) = 2.83, p < .01$). Effect sizes (ES) in Table 4 were calculated based on the following formula:

\[ ES = \frac{\text{Difference between the posttest and pretest mean scores}}{\text{Standard Deviation of the pretest scores}} \]
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*\(p < .05\)


Table 3: Unadjusted pretest and posttest means and adjusted means for the experimental and control groups.
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**p < .01


Table 4. Pretest-posttest differences for the total sample, experimental and comparison groups combined.

**PREDICTORS OF TREATMENT OUTCOME**

**Mediating variables as predictors of treatment outcome**

The partial correlation between the moral judgment maturity and posttest-period incident report frequency controlling for pretest-period incident report frequency was significant ($r(32) = -.40, p < .05$). The partial correlations for the other mediating variables were not significant (Table 5).
**Noncompliance as a predictor of treatment outcome**

The partial correlation between noncompliance and posttest-period incident report frequency controlling for pretest-period incident report frequency was significant ($r(39) = .36, p < .05$).

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* $p < .05$


Table 5. Partial correlations between the variables above and posttest-period incident report frequency controlling for pretest-period incident report frequency.
DISCRIMINANT ANALYSES

**Behavioral measures.** Discriminant analyses indicated that compared to subjects who were asked to leave the program, subjects who successfully completed the program evidenced significantly significantly lower levels of self-reported internalizing problem behaviors ($F = 4.34, p < .05$). There were not any significant differences in self-reported externalizing behavior for both measures (the YASR and the Leeman et al. questionnaire; see Table 6).

**Mediating variables.** Discriminant analyses on the mediating variables: moral reasoning maturity, moral self-relevance, social-cognitive distortions, and social skills, did not show any significant differences between subjects who successfully completed the program and those who did not.

**Noncompliance.** Discriminant analyses indicated that compared to subjects who were asked to leave the program, subjects who successfully completed the program evidenced significantly significantly lower levels of noncompliance during therapy sessions ($F = 5.48, p < .05$).
<table>
<thead>
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<th>Yes</th>
<th>F-value</th>
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<tbody>
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<td>14.76</td>
<td>1.26</td>
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<tr>
<td>2. INT</td>
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<td>13.39</td>
<td>4.34*</td>
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<td>0.67</td>
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<td>4. MSR</td>
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<td>0.18</td>
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<tr>
<td>5. SCD</td>
<td>2.72</td>
<td>2.57</td>
<td>0.59</td>
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<tr>
<td>6. SSA</td>
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<td>4.85</td>
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<tr>
<td>7. NCO</td>
<td>2.62</td>
<td>1.15</td>
<td>5.48*</td>
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*p < .05


Table 6. Mean differences between subjects who complete the program vs. subjects who were asked to leave.
CHAPTER 4

DISCUSSION

The importance of the EQUIP program's peer-helping component was investigated utilizing a "dismantling strategy," and was supported by the results of this study based on archival data. The group that received the comprehensive EQUIP program evidenced significantly less antisocial conduct compared to the comparison group that received the skills taught in the EQUIP program but not with the structured peer-helping format. In the structured peer-helping component, group members report self-serving cognitive distortions and apply learned skills to help one another correct those distortions and associated problem behaviors. The goal of the peer-helping component is to transform the negative youth culture found among antisocial youth into one characterized by caring and constructive help for peers. As noted earlier, evaluations of treatment programs based solely on this approach have not been encouraging. However, results of this study suggest that a modified structured peer-helping approach may play a crucial role in multi-component group treatment programs for antisocial youth, such as EQUIP. In addition, the results also suggests the need for multi-componential programs, like EQUIP, that are designed to both motivate and teach antisocial youth to help one another think and act responsibly.
The importance of the peer-helping component was not supported based on self-report measures; there were no significant differences between the groups based on self-report conduct measures. In addition, based on self-report measures, the experimental group did not evidence any significant gains relative to the comparison group for the mediating variables investigated, i.e., moral judgment maturity, moral self-relevance, social-cognitive distortions, and social skills.

The lack of significant differences in all of the variables based on self-report measures, in contrast to significant differences based on archival data, suggests that underreporting may be a problem in this sample. Compliant subjects at this facility are often promoted to a "work-release program" where they are allowed to leave the facility to work. Hence, the subjects may have been motivated to respond in a socially desirable way. Consistent with this possibility, the Anomalous Responding (AR) scale was found to correlate negatively with level of cognitive distortion on the HIT; such correlations suggest that subjects who were reporting low cognitive distortion scores were responding in a disingenuous way. Moreover, although all of the subjects were felony offenders, the mean levels of cognitive distortion and externalizing behaviors reported in this sample were within the normal range of functioning based on the respective profile scales (see Profile Form for HIT scores, Barriga, Gibbs, Potter, & Liau, in press; YASR Profile Problem Scales, Achenbach, 1991c).

Various other factors may have contributed to the lack of differences between the experimental and comparison groups. One such factor is the lack of power. The sample sizes of the experimental group (N=15) and the control group (N=24) were perhaps too
small to yield a test with sufficient power. Assuming a medium effect size (see Leeman et al., 1993), this sample size would have yielded a power of approximately .35, a degree of power which would be considered fairly small (Keppel, 1991). Originally, the study was supposed to have involved 100 subjects (which would have yielded a power of .80) but due to the departure of two key therapists from the facility, the study had to be terminated early.

Another factor is the low intensity or frequency and the short duration of the treatment. In the EQUIP manual, it is recommended that initially, structured peer-helping sessions should be held five times a week. These sessions would last for an hour and a half each day. After two to four weeks, it is recommended that “Equipment meetings,” which address sociomoral developmental delays, social cognitive deficiencies and distortions, as well as social skill deficiencies, be introduced at hour-long meetings twice a week. Hence, by the fourth week, there would be three peer-helping sessions, and two equipment meetings each week (Gibbs, Potter, Goldstein, 1995; Leeman, et al., 1993). However, in this study, due to various staffing limitations at the facility, structured peer-helping sessions for the experimental group were only held once or at the most twice a week. As this facility is a short-term treatment facility, the duration of the subjects’ stay was only six to eight weeks (see Methods section). Hence, subjects in the experimental group may only have attended six to eight structured peer-helping sessions. The small number of these sessions may have contributed to the lack of significant differences between the experimental and comparison groups.

A third possible factor concerns the program therapists. In planning an outcome
study, Kazdin (1995b, 1988) recommends addressing a number of issues, such as, sample characteristics, design, procedures, therapists, treatment, assessment and data evaluation. The study has tried to address all of these issues except therapist variables. Given logistical constraints at the facility, only two therapists were available for implementing the EQUIP program. These two therapists also had many other responsibilities to fulfill. Due to these constraints, we were not able to investigate a therapist effect or a treatment X therapist interaction effect. Instead, one therapist ran the structured peer-helping session, while another therapist ran the unstructured version of the peer-helping meeting for the control group. Hence, it is possible that any differences between the experimental and control groups could be an artifact of a therapist effect. Inconsistent with this possibility however, was the fact that the experimental and control groups did not differ in terms of the number of noncompleters of the program (eight vs. nine, respectively) and mean level of noncompliance during therapy sessions (1.56 vs. 0.88, respectively).

Although the primary goal of the study was to investigate the importance of the EQUIP program’s peer-helping component, this study also investigated the role of mediating factors and factors that influence attrition. Regarding mediating factors, moral judgment maturity did significantly predict favorable treatment outcome. Although Blasi (1980), in his comprehensive literature review, concluded that the relationship between moral judgment maturity and moral (i.e., externalizing) behavior was modest, the results of this study corroborate the evidence from other studies that suggest the importance of including a moral judgment component in treatment programs for antisocial youth. Arbuthnot and Gordon (1986) found behavioral gains one year following their moral
judgment intervention which also addressed social skills. This “sleeper effect” of long-term gain was also reflected in the Leeman et al. (1993) study where the moral judgment gains of the EQUIP group significantly correlated inversely with recidivism rates at 12 months. Consequently, Leeman et al. argue that “although not proximal to situational behavior, mature moral judgment may serve as a foundation for mature social behavior in a general and long-term sense” (p.290).

Rates of noncompliance during therapy sessions were found to be an important variable in this study. High levels of noncompliance predicted less favorable treatment outcome, and higher rates of attrition. In other words, as treatment outcome was assessed in terms of conduct improvement in institutional incident reports, subjects who were noncompliant during therapy sessions were less likely to show conduct improvements. In regards to attrition, subjects who were noncompliant were less likely to successfully complete the program. Besides self-reported internalizing problem behaviors, level of noncompliance was the only factor that differentiated completers from noncompleters. These results support the current consensus that therapeutic variables like client participation during therapy sessions are important predictors of attrition (Hunt, 1992; see earlier discussion in Chapter 1). As Oei and Kazmierczak (1997) recommend, perhaps therapists should try to obtain information to alert them to potential dropout through the observation of compliance of their clients during therapy sessions. By acting on such information, the therapist may be able to prevent premature attrition of the client.

Interestingly, levels of noncompliance correlated significantly with levels of internalizing problem behaviors and cognitive distortion. As mentioned earlier, levels of
internalizing problem behaviors did significantly differentiate completers from noncompleters — with the noncompleters reporting higher levels of internalizing problem behaviors compared to the completers. Noncompleters reported higher levels of cognitive distortion compared to completers but the difference was only a trend. Internalizing problem behaviors cannot be ignored as they have been found to be comorbid (i.e., to co-occur) with externalizing problem behaviors in appreciable percentages of referred and nonreferred adolescents (Biederman, Newcorn & Sprich, 1991; McConaughy & Achenbach, 1993). McConaughy and Achenbach (1993) found that 51 percent of those who were deviant (above the 82nd percentile) on the externalizing behavior scale on the Child Behavior Checklist (Achenbach, 1991a) were also deviant on the internalizing scale. Numerous researchers have also found more severe symptoms in comorbid subjects as compared to subjects with just externalizing problem behaviors (Barnes & Noel, 1995; Anderson, Williams, McGee & Silva, 1987; Robins & Price, 1991). For example, Barnes and Noel (1995) found that 12 percent of their juvenile delinquent sample exhibited depressive symptoms and this subgroup tended to engage in more serious offenses. Garfield (1994) has concluded that individuals with more serious levels of disturbance have poorer treatment outcomes. Consequently, the elevated severity in symptoms in comorbid individuals suggest that they may be less likely to respond to treatment, and perhaps more likely to dropout of treatment, as implied by our results.

The present study was only partially able to support the importance of the structured peer-helping component of the EQUIP program. The limitations encountered
in this study suggest numerous recommendations for future research. First, the significant differences found based on archival data suggest that it may be worthwhile to evaluate further the importance of the structured peer-helping component in future studies. Second, the study suggests that even though the EQUIP program was originally designed for adolescent offenders at long-term residential facilities, the program may be adapted for use at short-term residential facilities for young adult offenders. However, more research needs to be done to compare the effectiveness of EQUIP relative to other existing interventions for young adult offenders. Third, the EQUIP program needs to be implemented at a facility where the entire staff is involved with and committed to the program. As described in the EQUIP manual (Gibbs et al., 1995), an institution implementing EQUIP, “should attempt to match its new treatment modality -- an effective and positive youth culture -- with an effective and positive staff culture” (p. 237). As described above, staffing problems contributed to the various limitations of this study, including the small sample size and the paucity of treatment sessions. Fourth, future research should attempt to address the issue of a therapist effect. Fifth, given that 37% of the subjects in this study were committed for drug related offenses, therapists should consider following the Gibbs et al. (1995, pp. 279-280) suggestions to supplement EQUIP with substance abuse group treatment programs.
LIST OF REFERENCES


60


the behavior problems of normal children between 21 months and 14 years. Berkeley: University of California Press.


normal subjects. *Behavioral Research and Therapy, 28*, 355-357.


APPENDICES

A - Checklists for Group Leader Review/ Self-Evaluation
B - Leeman et al.'s pre-institutionalization misconduct self-report questionnaire
C - Leeman et al.'s institutional misconduct self-report questionnaire
D - The Sociomoral Reflection Measure - Short Form
E - The Adapted Good-Self Assessment
F - The How I Think Questionnaire
G - Subscale Items of the How I Think Questionnaire
H - Inventory of Adolescent Problems - Short Form
I - Therapeutic Quality Questionnaire
APPENDIX A

Checklists for Group Leader Review/ Self-Evaluation
Mutual Help Meetings: Checklist for Group Leader Review/Self-Evaluation

Date ______ Group ________

PRE-MEETING
___ 1. Did you check the feedback system to review the latest information on the group and its members?
___ 2. Did you make plans for your introductory and summary comments?

PHASE ONE: INTRODUCTION
___ 3. Did you begin the meeting with introductory comments (reflections from the previous meetings, evaluations of the group's progress, encouraging comments, challenges, etc.)?
___ 4. Did the introductory comments take no longer than 5 minutes?

PHASE TWO: PROBLEM REPORTING
___ 5. Was the problem reporting accomplished?
___ 6. Did the group members report both a Problem Name and an underlying Thinking Error?
___ 7. Did the Problem Reporting take an appropriate amount of time (e.g., approximately 15 minutes for a group of 9)?

PHASE THREE: AWAR'ING THE MEETING
___ 8. Did the group decide who is to "have" the meeting?
___ 9. Did Awarding the Meeting take an appropriate amount of time (e.g., approximately 5 minutes for a group of 9)?

PHASE FOUR: PROBLEM SOLVING
___ 10. Did group members analyze the problem sufficiently to understand the problem?
___ 11. Did group members achieve a plan and time line for the problem solution?
___ 12. Did group members use the EQUIP vocabulary (Problem Names, Thinking Errors)?
___ 13. If the Equipment Meetings have started, did group members apply any "equipment" they have learned?

PHASE FIVE: SUMMARY
___ 14. Did you have enough time to summarize the group's accomplishments and suggest ways in which subsequent meetings can be more effective?

POST-MEETING
___ 15. Did you make notes regarding the meeting and individual group members?

In general:
___ 16. Did the group members follow the Ground Rules (concerning listening, confidentiality, etc.)?
___ 17. Were all group members interested and involved? If no, list the names of uninvolved group members:

___ 18. Did you use any of the Basic Mutual Help Techniques? If so, check which one(s):
  reversing ___ confronting ___ checking ___ relabeling ___
___ 19. Did you use the Ask-Don't-Tell method to encourage the group members to communicate with one another rather than with you?
___ 20. Did you maintain a normal volume and speak in a respectful rather than threatening or demanding tone?
___ 21. Did you maintain a balance between criticism and approval by using the "sandwich" style of constructive criticism (in which a critical comment is preceded and followed by supportive ones)?
___ 22. Group rating for this session along scale from 1 (Planet A) to 4 (Planet B).

[01/197 revision]

Date __________ Group ________________________________

Problem Situation Discussed ________________________________

In the various phases, did you ask questions to:

**PHASE ONE: INTRODUCE THE PROBLEM SITUATION**

1. Remind the group of the ground rules for discussion?

2. Make sure the group understood the problem situation (e.g., "Who can tell the group just what Jerry's problem is? Why is that a problem?")?

3. Relate the problem situation to the group members' everyday lives (e.g., "Do problems like this happen? Who has been in a situation like this? Tell the group about it.")?

**PHASE 2: CULTIVATE MATURE MORALITY**

4. Establish mature morality as the tone for the rest of the meeting (e.g., eliciting, reconstructing, and listing on flip pad or chalkboard mature reasons for each positive majority decision)?

**PHASE 3: REMEDIATE MORAL DEVELOPMENTAL DELAY**

5. Use more mature group members and the list of reasons (phase 2) to challenge the hedonistic or pragmatic arguments of some group members?

6. Create role-taking opportunities in other ways as well (e.g., "What would the world be like if everybody did that?" "How would you feel if you were Bob?")?

**PHASE 4: CONSOLIDATE MATURE MORALITY**

7. Make positive decisions and mature reasons unanimous for the group (e.g., "Any strong objections if I circle that decision as the group decision/underline that reason as the group's number one reason?")?

8. Praise the group for its positive decisions and mature reasons (e.g., "I'm really pleased that the group was able to make so many good, strong decisions and back them up with good, strong reasons." "Would the group like to tape this sheet onto the wall?")?

In general:

9. [Prior to the session] Did you review the Leader Notes?

10. Did the group members follow the Ground Rules (concerning listening, confidentiality, etc.)?

11. Were all group members interested and involved? If no, list the names of uninvolved group members:

12. Was some constructive value found in every serious group member comment?

13. Was the should supported and relabeled as strong (e.g., "Yes it does take guts to do the right thing...")?

**POST-MEETING**

14. Did you make notes regarding the meeting and individual group members?
The culture of an organization is a direct reflection of the management’s philosophy and practices. If an EQUIP program is to be successful, we believe that the following statements must have “yes” responses.

___ 1. Has the mission statement been clearly articulated and conveyed to the staff?

___ 2. Has a program statement been written and conveyed to the staff? Did it include:
   ___ a. characterization of the treatment population?
   ___ b. overview of the treatment program?
   ___ c. expectations for staff?

___ 3. Have basic directives related to safety, security, and youth behaviors been written and routinized through practice?

___ 4. Are the staff organized into multi-disciplinary, non-hierarchical treatment teams?

___ 5. Has administration articulated the treatment team’s authority and responsibility and responsibility for the implementation of the EQUIP program?

___ 6. Have all treatment team members been trained in the EQUIP program?

___ 7. Is the treatment team(s) meeting once per week for a minimum of 75 minutes?

___ 8. Is there a feedback system that provides timely and accurate information?

___ 9. Is the EQUIP language used throughout the agency or the assigned subsystem within the agency?
Anger Management/Social Skills Sessions: Checklist for Group Leader Review/Self-Evaluation

Date __________ Group __________

Anger Management Session ___ Social Skills Session ___ (check one)

Title of Session ____________________________________________

In general:
1. Did you review ahead of time the Procedure and Leader Notes?

2. Did the group members follow the Ground Rules (concerning listening, confidentiality, etc.)?

3. Were all group members interested and involved? If no, list the names of uninvolved group members:

4. Did you find some constructive value in every serious group member comment?

5. Did you maintain a normal volume and speak in a respectful rather than threatening or demanding tone?

6. Did you maintain a balance between criticism and approval by using the "sandwich" style of constructive criticism (in which a critical comment is preceded and followed by supportive ones)?

For Anger Management Sessions:
7. [After first session:] Did you start off by reviewing the previous session activities?

8. Did you accomplish all the activities listed in the Overview of Activities?

For Social Skills Sessions:
7. Did you Show the Skill and ask for "coaching" feedback?

8. After reading the suggested situations, did you encourage the group members to think of a suitable situation from their daily lives with which to Try the Skill?

9. Which group members Tried the Skill?

10. [Discuss the Skill:] Did the designated group members give "coaching" feedback?

11. [After all group members Tried the Skill:] Did the group members receive the Social Skill Practice Sheet?

Post-Meeting
12. Did you make notes regarding the meeting and individual group members?
APPENDIX B

Leeman et al. Pre-institutionalization Misconduct Self-Report Questionnaire
Pretest Self-Report Questionnaire

Instructions to Subjects: "I'm going to ask you some questions about yourself. I'd like to know which of the following things you have done in the last year you were outside, whether you were caught or not. Everything you tell me will be completely confidential."

Instructions to Interviewer: Circle a single number, not a range.

**HOW MANY TIMES IN THE PAST YEAR HAVE YOU:**

1. stolen (or tried to steal) a motor vehicle, such as a car or motorcycle.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

2. stolen (or tried to steal) something worth more than $50.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

3. knowingly bought, sold, or held stolen goods (or tried to do any of these things).

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

4. carried a hidden weapon other than a plain pocket knife.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

5. tried to talk your friends out of doing something that was against the law.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

6. attacked someone with the idea of seriously hurting or killing them.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5

7. been involved in gang fights.

   Never 1-3 times 4-6 times 6-12 times more than 12 times
   1  2  3  4  5
8. sold marijuana or hashish ("pot," "grass," "hash").

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9. sold hard drugs, such as heroin, cocaine, LSD, quaaludes, etc.

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10. had (or tried to have) sexual relations with someone against their will.

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11. used force (strong-arm methods) to get money or things from someone.

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12. given money, food, or clothing to someone of some group who needed them very much.

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13. stole (or tried to steal) things worth between $5 and $50.

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14. broke into a building or vehicle (or tried to break in) to steal something or just to look around.

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15. physically hurt or threatened to hurt someone to get them to have sex with you.

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16. used or tried to use credit cards not belonging to you and without the owner's permission.

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17. used checks illegally or used phony money to pay for something.

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18. helped out someone who was badly hurt such as someone who was beaten up, in an accident, or very sick.

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19. tried to cheat someone by selling them something that was worthless or not what you said it was.

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20. purposely set fire to a building, a car, or other property, or tried to do so.

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21. threatened someone with a weapon such as a gun or knife in order to make them do what you wanted.

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22. used marijuana or hashish.

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</tr>
</tbody>
</table>

23. used hard drugs.

<table>
<thead>
<tr>
<th>Never</th>
<th>1-3 times</th>
<th>4-6 times</th>
<th>6-12 times</th>
<th>More than 12 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

24. purposely damaged or destroyed property that did not belong to you.

<table>
<thead>
<tr>
<th>Never</th>
<th>1-3 times</th>
<th>4-6 times</th>
<th>6-12 times</th>
<th>More than 12 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

25. found something like a wallet or jewelry and returned it to the owner of the police.

<table>
<thead>
<tr>
<th>Never</th>
<th>1-3 times</th>
<th>4-6 times</th>
<th>6-12 times</th>
<th>More than 12 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX C

Leeman et al. Institutional Misconduct Self-Report Questionnaire
Self-Report Questionnaire

Instructions to Subjects: "I'm going to ask you some questions about yourself. I'd like to know which of the following things you have done in the past month, whether you were caught or not. When I say "in the past month," I mean the past month you have been here, not "outside" on leave, a home visit, or AWOL. Everything you tell me will be completely confidential.

Instructions to Interviewer: Circle a single number, not a range.

HOW MANY TIMES IN THE PAST MONTH HAVE YOU:

1. gone truant or AWOL.
   never  once  twice  three or more times
   1  2  3  4

2. purposely damaged or messed up something not belonging to you.
   never  once  twice  three or more times
   1  2  3  4

3. taken something not belonging to you, even if returned.
   never  once  twice  three or more times
   1  2  3  4

4. hurt or injured someone on purpose.
   never  once  twice  three or more times
   1  2  3  4

5. drunk beer, wine, or liquor.
   never  once  twice  three or more times
   1  2  3  4

6. smoked marijuana, hash, or used any drugs or chemicals to get high.
   never  once  twice  three or more times
   1  2  3  4
7. taken part in a fight where a bunch of guys were against another bunch.

<table>
<thead>
<tr>
<th>never</th>
<th>once</th>
<th>twice</th>
<th>three or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. kept a knife, club, or weapon.

<table>
<thead>
<tr>
<th>never</th>
<th>once</th>
<th>twice</th>
<th>three or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

9. had things here that it's against the rules to have.

<table>
<thead>
<tr>
<th>never</th>
<th>once</th>
<th>twice</th>
<th>three or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

10. gambled.

<table>
<thead>
<tr>
<th>never</th>
<th>once</th>
<th>twice</th>
<th>three or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

11. given a staff member such a hard time that you got into trouble.

<table>
<thead>
<tr>
<th>never</th>
<th>once</th>
<th>twice</th>
<th>three or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX D

The Sociomoral Reflection Measure - Short Form
Social Reflection Questionnaire

Name: ___________________ Date: ___________________
Birthdate: _______________ Sex (circle one): male female

Instructions

In this questionnaire, we want to find out about the things you think are important for people to do, and especially why you think these things (like keeping a promise) are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN—EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don’t just write "same as before." If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions, especially the "why" questions. If you need to, feel free to use the space in the margins to finish writing your answers.
1. Think about when you’ve made a promise to a friend of yours. How important is it for people to keep promises, if they can, to friends?

Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


2. What about keeping a promise to anyone? How important is it for people to keep promises, if they can, even to someone they hardly know?

Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


3. How about keeping a promise to a child? How important is it for parents to keep promises, if they can, to their children?

Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


4. In general, how important is it for people to tell the truth?
Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?

5. Think about when you’ve helped your mother or father. How important is it for children to help their parents?
Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?

6. Let’s say a friend of yours needs help and may even die, and you’re the only person who can save him or her. How important is it for a person (without losing his or her own life) to save the life of a friend?
Circle one: very important  important  not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?
7. What about saving the life of anyone? How important is it for a person (without losing his or her own life) to save the life of a stranger?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


8. How important is it for a person to live even if that person doesn't want to?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


9. How important is it for people not to take things that belong to other people?

Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?


10. How important is it for people to obey the law?
Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?

11. How important is it for judges to send people who break the law to jail?
Circle one: very important important not important

WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (WHICHEVER ONE YOU CIRCLED)?
APPENDIX E

The Adapted Good-Self Assessment
INSTRUCTIONS

I'd like you to imagine that the figure below is a diagram of you. The middle of the circle is made up of qualities or characteristics that are extremely important to you; the next circle is made up of qualities that are very important to you; and the outer circle is made up of qualities that are a little important to you. Qualities that are not important to you are outside the circle.

Please think about this figure as you answer the questions on the next two pages. Each question describes a quality or characteristic that a person might have. Each quality is described with two words, such as smart or intelligent, and friendly or neighborly. We would like to know how much each of these qualities describes your self and the kind of person you are. For example, if a quality listed is a really central or important part of you without which you would not be you, then you would answer "extremely important to me." If a quality listed seems like a nice or good quality, but it isn't a central or important part of you, then you would answer "not important to me." Please try to use a variety of different answers to show us which qualities are extremely important to you, which are very important to you, which are a little important to you, and which are not important to you.

To get a good idea of how you will compare and rate the different qualities, please read all of the questions before you go back a second time to answer them. Because this is a very short questionnaire, reading it twice will not take you very long at all. If you have any questions while you are filling it out or if you don't understand one of the qualities, please raise your hand. I will come to your seat and answer your questions. Please don't say any answers or make any comments out loud. Do you have any questions before we start? If not, then please begin.
1. How important is it to you that you are creative or imaginative?

- extremely important to me
- very important to me
- a little important to me
- not important to me

2. How important is it to you that you are considerate or courteous?

- extremely important to me
- very important to me
- a little important to me
- not important to me

3. How important is it to you that you are hard-working or industrious?

- extremely important to me
- very important to me
- a little important to me
- not important to me

4. How important is it to you that you are honest or truthful?

- extremely important to me
- very important to me
- a little important to me
- not important to me

5. How important is it to you that you are outgoing or sociable?

- extremely important to me
- very important to me
- a little important to me
- not important to me

6. How important is it to you that you are kind or helpful?

- extremely important to me
- very important to me
- a little important to me
- not important to me

7. How important is it to you that you are athletic or agile?

- extremely important to me
- very important to me
- a little important to me
- not important to me

8. How important is it to you that you are understanding or sympathetic?

- extremely important to me
- very important to me
- a little important to me
- not important to me
<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. How important is it to you that you are funny or humorous?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>10. How important is it to you that you are generous or giving?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>11. How important is it to you that you are logical or rational?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>12. How important is it to you that you are sincere or genuine?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>13. How important is it to you that you are independent or self-reliant?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>14. How important is it to you that you are fair or just?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>15. How important is it to you that you are active or energetic?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
<tr>
<td>16. How important is it to you that you are responsible or dependable?</td>
<td>extremely, very, a little, not</td>
</tr>
<tr>
<td></td>
<td>important to me</td>
</tr>
</tbody>
</table>

92
The "HOW I THINK" Questionnaire

NAME:_____________ DATE:_______

AGE:___________ Circle one: Male/Female

Please do not turn this page until I say to begin.

Each statement in this questionnaire may describe how you think about things in life. Read each statement carefully. Then ask yourself: "Is it fair to say that this statement describes my thinking within the past six months?" Your answers will be kept private.

Mark your answer on the sheet. Do not say it out loud.

Any questions?

O.K., turn the page and begin.
1. People should try to work on their problems.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

2. I can't help losing my temper a lot.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

3. Sometimes you have to lie to get what you want.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

4. Sometimes I get bored.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

5. People need to be roughed up once in awhile.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

6. If I made a mistake, it's because I got mixed up with the wrong crowd.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

7. If I see something I like, I take it.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

8. I am generous with my friends.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly

9. You can't trust people because they will always lie to you.
   agree   agree   agree   disagree   disagree   disagree
   strongly slightly slightly strongly
10. When I get mad, I don’t care who gets hurt.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. If someone leaves a car unlocked, they are asking to have it stolen.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. You have to get even with people who don’t show you respect.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Sometimes I gossip about other people.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Everybody lies. It’s no big deal.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. It’s no use trying to stay out of fights.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Everyone has the right to be happy.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. If you know you can get away with it, only a fool wouldn’t steal.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. No matter how hard I try, I can’t help getting in trouble.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Slightly</td>
<td>Slightly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. Only a coward would ever walk away from a fight.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

20. I have sometimes said something bad about a friend.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

21. It's O.K. to tell a lie if someone is dumb enough to fall for it.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

22. If I really want something, it doesn't matter how I get it.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

23. If you don't push people around, you will always get picked on.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

24. Friends should be honest with each other.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

25. If a store or home owner gets robbed, it's really their fault for not having better security.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

26. People force you to lie if they ask too many questions.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

27. I have tried to get even with someone.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
<td>strongly</td>
</tr>
</tbody>
</table>
28. You should get what you need even if it means someone has to get hurt.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

29. People are always trying to hassle me.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

30. Stores make enough money that it's O.K. to just take things you need.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

31. In the past, I have lied to get myself out of trouble.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
</tr>
</tbody>
</table>

32. You should hurt people first, before they hurt you.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
<th>disagree</th>
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<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
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33. A lie doesn’t really matter if you don’t know that person.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
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<th>disagree</th>
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<tr>
<td>strongly</td>
<td>agree</td>
<td>slightly</td>
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34. It’s important to think of other people’s feelings.

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<tr>
<th>agree</th>
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<th>disagree</th>
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<td>strongly</td>
<td>agree</td>
<td>slightly</td>
<td>slightly</td>
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35. You might as well steal. If you don’t take it, somebody else will.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
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<tr>
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<td>agree</td>
<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
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36. People are always trying to start fights with me.

<table>
<thead>
<tr>
<th>agree</th>
<th>agree</th>
<th>agree</th>
<th>disagree</th>
<th>disagree</th>
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<td>slightly</td>
<td>slightly</td>
<td>slightly</td>
<td>strongly</td>
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</table>
37. Rules are mostly meant for other people.

<table>
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<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
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38. I have covered up things that I have done.

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<th>Agree</th>
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<td>Agree</td>
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39. If someone is careless enough to lose a wallet, they deserve to have it stolen.

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<tr>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
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40. Everybody breaks the law, it's no big deal.

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<th>Agree</th>
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<th>Disagree</th>
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41. When friends need you, you should be there for them.

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<tr>
<th>Agree</th>
<th>Agree</th>
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<th>Disagree</th>
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<td>Agree</td>
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42. Getting what you need is the only important thing.

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</table>

43. You might as well steal, people would steal from you if they had the chance.

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<tr>
<th>Agree</th>
<th>Agree</th>
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<th>Disagree</th>
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44. If people don't cooperate with me, it's not my fault if someone gets hurt.

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<tr>
<th>Agree</th>
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<th>Disagree</th>
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45. I have done bad things that I haven't told people about.

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<td>Slightly</td>
<td>Strongly</td>
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</table>
46. When I lose my temper it's because people try to make me mad.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

47. Taking a car doesn't really hurt anyone if nothing happens to the car and the owner gets it back.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

48. Everybody needs help once in a while.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

49. I might as well lie—when I tell the truth, people don't believe me anyway.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

50. Sometimes you have to hurt someone if you have a problem with them.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

51. I have taken things without asking.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

52. If I lied to someone, that's my business.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

53. Everybody steals, you might as well get your share.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

54. If I really want to do something, I don't care if it's legal or not.

agree agree agree disagree disagree disagree
strongly slightly slightly disagree strongly

100
APPENDIX G

Subscale Items of the How I Think Questionnaire
## Cognitive Distortions

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Self-centered</th>
<th>Minimizing/Mislabeling</th>
<th>Assuming the Worst</th>
<th>Blaming Others</th>
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<tbody>
<tr>
<td>Physical Aggression</td>
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<td>5, 19</td>
<td>15, 23, 32</td>
<td>36, 44, 50</td>
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<td>Opposition/Defiance</td>
<td>37, 42, 54</td>
<td>12, 40</td>
<td>2, 18, 29</td>
<td>6, 46</td>
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<tr>
<td>Lying</td>
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<td>14, 33</td>
<td>9, 49</td>
<td>21, 26</td>
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<td>Stealing</td>
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<td>17, 30, 47</td>
<td>35, 43, 53</td>
<td>11, 25, 39</td>
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<td>Totals</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>10</td>
<td>39</td>
</tr>
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</table>

Anomalous Responding Scale Items: 4, 13, 20, 27, 31, 38, 45, 51 = 8

Positive Filler: 1, 8, 16, 24, 34, 41, 48 = 7
Subject's copy

Inventory of Adolescent Problems—Short Form (AP-SF)

Situations

1. You’re visiting your aunt in another part of town, and 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 bumps into you and you nearly lose your balance. What do you say or do now?

2. You’re driving around with a good friend on a hot, muggy summer night. He says, “I am thirsty! I could really use a cold beer. I know a place that doesn’t check IDs. How about going over and getting some booze?” What do you say or do now?

3. It’s 7:30 on a Saturday night, and you ask your father if you can go out driving around with some friends. He says no, and is angry. He yells, “Nothing doing! You know what happens when you go driving around with those kids. You’re staying home tonight!” What do you say or do now?

4. You’ve been going steady with a girl named Mary for about three months. It used to be a lot of fun to be with her, but it isn’t any more. There are some other girls you’d like to go out with now. You decide to break up with Mary, but you know she’ll be very upset with you. What do you say or do now?

5. 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. You wish there were some excitement. What do you do to go about solving this problem?

6. You walk into the kitchen one morning before school. 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 wash 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 or I ever looked like that?” What do you say or do now?

7. 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, 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 $50 besides, for half an hour’s driving. Will you help me out?” What do you say or do now?
8. One of your friends really likes a girl named Debbie and dates her. You think she’s pretty nice yourself. You went out with her Saturday night and you both had a really good time. Someone must have told your friend because he comes running up to you in the school yard and says, “You dirty cheater! Bill just told me about you and Debbie. If you ever go out with her again, I’ll knock your ugly face in!” What do you say or do now?

9. Your friend calls on a Saturday 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’re gone.” What do you say or do now?

10. Your father has been hassling you for months about getting home by midnight. Sometimes that’s a problem, because none of your friends have to be home before 1:00 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, looking mad. He says, “Where in hell have you been? Do you have any idea what time it is?” What do you say or do now?

11. You’re walking along a side street with a friend. He stops in front of a beautiful new sports car. He looks inside and then says excitedly, “Look, the keys are still in this baby! Let’s see what she can do. Come on, let’s go!” What do you say or do now?

12. 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 your 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?

13. 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 tells you that he and another man are going to hold up a gas station out in the country. He says, “You want to come along? We think you could be a big help to us.” What do you say or do now?

14. You ask the girl who sits next to you in the study hall if
she'd like to come to a party at your house Saturday night. She says, "I'd like to, but my father won't let me hang out with kids who have a bad reputation." What do you say or do now?

15. You're at a party and all the people there are smoking joints. You used to do a lot of smoking yourself until you got caught last month. Everyone knows you used to smoke. Your girlfriend offers you a joint. What do you say or do now?

16. You work as a clerk in a grocery store. The store isn't too busy and a guy you know from school comes over to your cash register. He says, "Hey, I only have a dollar with me. Ring up these cigarettes and six-pack for a dollar, won't you? The manager is in the back of the store. He'll never know." What do you say or do now?

17. You're playing basketball in the school yard, and some guy you don't know well is standing on the sidelines. He starts teasing you, calling you names, and making fun of the way you look and play. What do you say or do now?

18. 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 kids in the past. Sorry." What do you say or do now?

19. You were suspended from school for one week because you were caught in the locker room drinking one afternoon with several of your friends. You're back in school now, and it's been hard getting back in with the teachers. A couple of teachers seem to be on your back, hassling you because of what you did. Just now, one of them has surprised you in a little-used classroom, where you're catching a snore, which is against school rules. The teacher says, "Okay, just what do you think you're doing in here, young man? Didn't you learn anything by your suspension?" What do you say or do now?

20. 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 down and a little angry, all at the same time. What do you do to get out of this bad mood?

21. Your parents don't 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 with a bad reputation, has just left your house after his first visit over to your place. After he's gone, your mother gets on his case, calling him a good-for-nothing and demanding that you not see him again. You
know that Joe has become more responsible lately. How do you go about solving this problem? What do you say or do now?

22. The girl you've been going out with just broke up with you. She said that you're O.K., but she'd like to go out with other guys, too. You still like 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 do you go about solving this problem? What do you say or do now?
APPENDIX I

The Therapeutic Quality Questionnaire
1. I prefer planet B (a planet which is safe and peaceful; where people do care about others; people have fun but feel bad if they hurt someone) rather than planet A (a planet which is a violent and dangerous place to live; people just care about themselves and don’t care when they hurt others).

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<tr>
<th>Strongly disagree</th>
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2. The group members talked about their problems and helped other group members with problems.

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<th>Strongly disagree</th>
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3. When group members talked about their problems and helped others, they used the Problem Names (Authority Problem, Aggravates Others, and so on).

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4. The small group sessions were very important and helpful to me.

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5. When group members talked about their problems and helped others, they used the Thinking Error names (Self-Centered, Minimizing/Mislabeling, Assuming the Worst, Blaming Others).

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6. When a new member joined the group, I tried to help him learn about the group and the program (how to use the Problem Names, Thinking Errors, and so on).

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7. I felt trusted and cared about in the group, so that I could share my problems with the group.

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8. When group members talked about their problems and helped others, they used the skills from the groups (communication skills, anger management, moral values, and so on).

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