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Running Head: A cognitive-behavioral program

**A Cognitive-Behavioral Program for Young Offenders:
Focusing on the Peer Helping Approach**

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Abstract

The present study evaluated a newly developed cognitive behavioral program, the Equip program (Gibbs, Potter & Goldstein, 1995), that focuses on teaching youth to think and act responsibly through a peer helping approach. The 10-week program, which includes components of anger management, social skills training and moral development was implemented with a group of moderate to high risk young offenders in a secure custody facility in Thunder Bay, Ontario. The Equip program was compared to an alternative cognitive behavioral program currently implemented with young offenders in the Thunder Bay area and a control group consisting of youth serving probation sentences in the community and receiving minimal intervention. Pre and post measures of social skills, cognitive distortions and behavioral outcomes indicated that relative to the control group, Equip members evidenced significant gains in overall levels of social skills and skills involved in dealing with peer pressure. Although no behavioral gains were found, results also revealed clinically significant improvements in cognitive distortions for the alternative treatment group, providing support for the use of cognitively based programs with young offenders.

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Introduction

Criminal behavior displayed by youths continues to be a prominent problem in society. In 1997, youths accounted for 23% of the total charges for a Criminal Code offense in Canada (Statscan, 1998). Although the rate of property crimes (theft, break and enter) among youths has decreased during 1993 and 1998, the rate of violent crimes (aggravated assault, assault with a weapon, robbery) has increased over this period (Juristat, 1998). It appears that youths are exhibiting more aggressive and violent behavior. Furthermore, there is currently a substantial number of youths committing more than one crime. Recidivists (repeat offenders) accounted for 41% of youth court cases during 1996-1997 (Statscan, 1998).

The criminal conduct of young offenders has a broad impact on society. The youths themselves experience personal problems that lead to reduced educational and occupational opportunities (Goffredson, 1989). Their behavior also has serious detrimental emotional, physical and economic effects on victims, victims' families and the community (Goffredson, 1989). Therefore, the development and evaluation of an effective treatment program for young offenders is essential. While providing these youth with the relevant skills and knowledge they need to live a more successful life, an effective treatment will also reduce recidivism (Andrews, Bonta, & Hoge, 1990) and subsequently reduce related distress placed upon society.

Cognitive-Behavioral Theory

There are various theories that attempt to discuss delinquency and criminal behavior committed by youth. The Social Learning Theory explains behavior as a function of learning, that is mediated by motivation (Hollin, 1992). Behavior is simply a result of what has been

learned. Bandura (1977) proposed a process of observational learning, whereby individuals pay attention to and observe another person's (the model) behavior, retain the information at a cognitive level, and then reproduce a motor response of the observed behavior (imitation). Therefore, learning occurs by processing perceived information at a cognitive level and retaining it in memory. According to Bandura, whether or not these behaviors are exhibited (imitated), is dependent on motivation and there are three ways that an individual can be motivated to behave in a particular way. *External reinforcement* is based on the principles of operant learning, whereby an individual is reinforced by environmental conditions or consequences to engage in particular behaviors. *Vicarious reinforcement* refers to observing the behaviors of others being reinforced or punished, which then motivates the observer to imitate the particular behaviors and *self-reinforcement* is based on feelings of pride or achievement in what one has done that motivates similar behavior in the future (Hollin, 1990a). Therefore, the Social Learning Theory considers criminal behavior to be learned and maintained by imitation or reinforcement of the resulting behavioral consequences (Hollin, 1992).

The role of cognitions and their relation to behavior is highlighted further by the Cognitive-Behavioral Theory. Much like the Social Learning theory, the principles behind cognitive-behavioral theories are drawn from the behavioral and cognitive models. The cognitive theories assert that behavior is determined by mental processes such as thoughts, memories, language, and beliefs (Hollin, 1990a). Behavioral theories on the other hand, emphasize the role of the environment and its influence on an individual's behavior. The resulting consequences of the individual's actions are also important as they reinforce further behaviors and deter others (Hollin, 1990a). Together, these two theories give rise to the cognitive-behavioral theory, where the underlying assumption asserts that behavior is a result of

environmental reinforcement, which is mediated by cognitive thoughts and perceptions. It is one's cognitions that determine which environmental influences will receive attention and subsequently reinforce specific behaviors (Hollin, 1992).

It is proposed by Cognitive-behavioral theorists that bad behavior is a result of bad thinking (Hollin, 1990a). Therefore, if we consider the criminal and anti-social behavior of young offenders, the cognitive-behavioral theory proposes that by altering the irrational thought patterns and perceptions these youth hold, the result will lead to changes in behavior.

Cognitions and Adolescents

Cognition refers to the mental processes that take place inside the mind such as thinking, problem solving, planning, and wishing (Rawana, Cryderman, & Thompson, 1998). These processes are very important during adolescence when individuals undergo a period of transition. During this period, new knowledge is acquired and individuals are forced to make decisions and overcome many hurdles in order to maintain "normal" functioning. Given that cognitions play a very important role in surmounting many of these tasks, it can be implied that cognitions ultimately impact on an individual's overall functioning (Rawana, et al., 1998).

During adolescence, individuals attempt to establish their identity, a sense of who they are. This task involves exploring their own values and goals, whereby they come to develop a particular view about themselves and their lives (Rawana et al., 1998). Unfortunately not all adolescents develop a mature sense of self. Some resort to adopting immature or inappropriate values and goals, thus reflecting inappropriate cognitions or beliefs.

Related to the task of identity achievement is the development of self-esteem, which is defined as an evaluation or judgement that an individual makes about one's self worth (Rawana et al., 1998). Once again, cognitions are associated with this task, whereby one's beliefs about

oneself impact on their overall view of themselves. Adolescents with higher levels of self-esteem or more positive self-evaluations are better able to cope with various problems that present during adolescence and later on in life. Adolescents with negative beliefs and self-evaluations may develop unhealthy coping mechanisms, which can create more problems for the individual.

Cognitions also affect an individual's social functioning, the way they interact with others and develop emotional connections. Peers become increasingly important during adolescence and the establishment of healthy peer relations is yet another task that adolescents face. Cognitions are related to the development of peer relations through their influence on self-esteem and identity achievement. One's beliefs about themselves and their overall life values and goals influence the type of friends that an individual will be attracted to and the type of friendships that will develop.

Adolescence is also a time when individuals develop strategies to express and regulate their emotions (Rawana et al.,1998). Self-talk, which is directly related to one's cognitions, is one way that adolescents attempt to self-regulate various emotions. Correspondingly, adolescents learn to deal with the feelings of others and how to empathize. That is, they learn to become aware of and attempt to understand what others may feel in certain situations and then produce sympathetic responsive behaviors. The development of empathy involves complex cognitive processes and abstract reasoning which is usually achieved by adolescence. However, as with many of these processes, successful achievement or establishment of such tasks can be prevented by problems with an individual's cognitive processes.

The influence of cognitions, particularly during adolescence, is clearly related to an individual's overall functioning. Therefore, inappropriate or faulty cognitions can lead to

various problems in an individual's life. Overcoming or correcting such problems should thus focus on correcting faulty cognitions, particularly during adolescence when individuals are forming the cognitive foundations for their views on themselves and various life issues that ultimately guides their future behavior.

Young Offenders and Cognitive Problems

Although the study of criminal behavior has become more focused on cognitions, it is social cognition in particular that researchers are interested in examining. Social cognition refers to the attitudes and beliefs that one has about others and their behavior as well as about one's own social functioning in relation to others (Hollin, 1992). Research has shown that young offenders have different styles of social cognition compared with individuals not involved in anti-social behavior (Hollin, 1992).

Gibbs, Potter and Goldstein (1995) characterize these cognitive differences as three socially problematic D's. Young offenders are said to have social cognitive *distortions*, social skill *deficiencies* and social developmental *delays*.

Social cognitive distortions

Cognitive distortions are defined as inaccurate attitudes, thoughts or beliefs that lead to faulty assumptions about one's own behavior or the behavior of others (Gibbs, 1993). Such errors in thinking have been shown to be associated with psychopathology in youth (Barriga, Landau, Stinson, Liao, & Gibbs, 2000). More specifically, different types of cognitive distortions have been found among individuals with different types of disorders. For instance, individuals with externalizing disorders such as conduct disorder are more likely to hold *self-serving* cognitive distortions (Barriga et al., 2000). These distortions serve to protect the

individual from blame or negative affective states and thus prevent the inhibition of aggression or other anti-social behaviors. In contrast, *self-debasing* cognitive distortions are inaccurate beliefs that actually debase the individual in a direct or indirect way and can lead to self-harm. These cognitive distortions are associated significantly more with the internalizing disorders such as depression, as opposed to externalizing disorders (Barriga et al., 2000).

The different types of cognitive distortions also reflect other differences in thinking among these youth. Individuals who hold self-serving distortions are significantly more likely to blame others than themselves for negative events. The continuous blaming of others subsequently results in a significant lack of remorse or empathy based guilt. In contrast, individuals that hold self-debasing cognitive distortions generally blame themselves for every negative event and thus experience excessive guilt (Barriga et al., 2000).

Therefore, in addition to characterizing the thinking patterns of young offenders as distorted (Gibbs, 1993), researchers have more specifically identified these cognitive distortions as self-serving (Barriga et al., 2000).

Furthermore, the type of self-serving cognitive distortion that young offenders hold has been shown to be related to specific types of anti-social behavior (Liau, Barriga & Gibbs, 1998). Anti-social behaviors have been characterized as *overt* and *covert*. Overt behaviors involve confrontation with the victim, such as fighting or physical aggression, whereas covert behaviors are non-confrontational and reflect concealed acts such as stealing or fire setting (Loeber & Schmaling, 1985).

Liau and colleagues (1998) found that not only were cognitive distortions and anti-social behaviors significantly more common among juvenile delinquents than a group of high school students, but that delinquents showed specific patterns of behaving according to their distorted

beliefs. Delinquents that endorsed such beliefs as “People need to be roughed up once in a while”, that reflect overt or confrontational behavior, were associated with exhibiting this type of behavior such as physical assault, and not covert anti-social behaviors. Similarly, delinquents that endorsed such distorted beliefs as “If someone is careless enough to lose a wallet, they deserve to have it stolen”, which reflect covert behaviors, were more likely to engage in covert anti-social behaviors such as stealing and not overt behaviors (Liau et al., 1998). Although young offenders clearly differ from those who do not engage in anti-social behaviors, these results suggest that there are still unique differences within the delinquent population, not only with respect to behaviors, but also according to cognition distortions.

Gibbs, Potter and Goldstein (1995) have identified four main categories of self-serving cognitive distortions commonly held by young offenders. *Self-Centered* thinking is based on egocentric bias, where one’s thoughts are focused solely on one’s own wants, needs or feelings and the views or considerations of others are disregarded (Gibbs, 1993). This thinking error leads to distorted attitudes such as “Because I want to do it, that means I’m entitled to” (Gibbs et al., 1995). Self-centered thinking is considered a primary distortion because it usually precedes other distortions (Gibbs et al., 1995).

Secondary distortions serve to support primary distortions and according to Gibbs, Potter and Goldstein (1995), consist of the following. *Assuming the worst* is where one attributes hostile intentions to others and assumes that improvements in one’s behavior or the behavior of others are impossible. Examples include “you should hurt people first, before they hurt you” and “people are always trying to start fight with me”. Support for this cognitive distortion was found by Dodge, Price, Bachorowski and Newan, (1990) who identified high levels of hostile attributions in severely aggressive young offenders. *Blaming others* comprises of placing blame

on external sources such as other people or environmental situations for things that one is actually responsible for. Examples of blaming are “If I hit someone, it’s their fault for making me mad” and after a break and enter a youth replies “they didn’t protect their house properly and so they deserved what happened to them”. *Minimizing/Mislabeling* is another cognitive distortion young offenders often hold. Minimizing refers to misrepresenting the effects of one’s anti-social behavior where mislabeling one’s behavior allows for the belief that no real harm was committed. For example, after a youth grabbed a woman’s purse that was dangling from a shopping cart, he stated that he had actually taught her a lesson: to be more careful in the future (Gibbs et al., 1995). The harm of his actions was minimized and he mislabeled his behavior to denote a positive event.

A recently developed questionnaire, “How I Think” by Gibbs, Barriga and Potter (2001), measures the four-category typology of cognitive distortions described by Gibbs, Potter and Goldstein (1995) and was found to correlate highly with self-reported anti-social behavior. Along with providing support for the notion that these youths hold such beliefs, it also offers potential clinical application for the assessment of cognitive distortions in young offenders.

Social Skill deficiencies

Youths displaying anti-social and delinquent behavior often have multiple skill deficits (Hollin, 1992). A study by Dishion, Loeber, Stouthamer-Loeber and Patterson (1984) identified various skill deficits that correlated with official and self-reported delinquency. Such correlates included deficits in academic skills, verbal intelligence, school competence, homework skills and interpersonal problem solving skills.

Other research indicates that young offenders also lack many social skills required for successful interpersonal interaction (Goldstein & Glick, 1987; Hollin, 1990b). Interaction and

communication with the social world requires skills made up of verbal and non-verbal language. Non-verbal language consists of specific behaviors such as eye contact, facial expressions, gestures, and bodily movements. These behaviors are called “micro-skills” which together make up more complex behaviors called “macro-skills” (Hollin, 1992). Expression of thoughts or feelings, having a conversation, negotiation and problem solving are examples of macro skills that are used to achieve everyday social goals (Hollin, 1992).

Hollin (1992) suggests that there are three components that underlie social skills: social perception, social cognition and social performance. *Social perception* refers to attending to a social situation and becoming aware of or recognizing what is happening. Young offenders do not appear to be as capable as non-offenders in perceiving complex aspects of a situation. For example, McCown, Johnson and Austin (1986) found that although delinquents could recognize facial emotions expressing happiness, anger and fear equally well as non-delinquents, they were less able to detect more complex facial emotions such as sadness, surprise and disgust compared to the non-delinquents. *Social cognition* refers to translating what one perceives and developing a response. This involves such cognitive processes as generating possible courses of action, considering possible alternatives and making plans to achieve a desired outcome. *Social performance* refers to performance social skills, that is, the skills that reflect the ability to behave or react appropriately in a social situation. Performance social skills are a result of what an individual perceives and translates cognitively into action. Studies have shown that young offenders have significantly less performance social skills than non young offender and engage in more fiddling, less eye contact and verbal speech (Hollin, 1992).

Similarly, Dodge (1986) offers an Information Processing Model explaining the sequence of steps required for effective cognitive processing of social information. *Encoding social cues*

is the first step that consists of attending to and gathering information related to the situation. The second step, *representation and interpretation*, refers to defining the particular problem in a situation and selecting a goal. *Response Search* is the third step and involves the generation of alternative solutions to a social problem. The *response decision* is the fourth step where one considers consequences to various responses and prioritizes the possible responses to a problem. Finally, *enactment*, the last step in Dodge's model does not involve cognitions, as it refers to the action performed.

Therefore, the first four cognitive steps in Dodge's model refer to social problem solving skills whereas the last step refers to social performance skills. While research does not indicate that all young offenders have social skill deficiencies, it does suggest that many do exhibit difficulties with both problem solving and performance skills (Hollin, 1990b).

Using Dodge's model to examine the role of cognition in aggressive behavior, Slaby and Guerra (1988) found two cognitive mediators related to aggression: social problem skills and beliefs supporting aggressive behavior. Compared to low-aggressive individuals, violent young offenders were significantly less effective in their problem solving skills, as they searched for fewer social cues, defined problems in a hostile way and generated significantly less alternatives, solutions and consequences. Compared to the low-aggressive individuals, the violent young offenders also held more beliefs supporting the use of aggression such as: "aggression helps to avoid a negative image, increases self-esteem and is a legitimate response".

The study by Slaby and Guerra (1988) provides support that aggressive young offenders have poor social problem solving skills indicated by deficiencies in each of the steps required to solve a social problem. However, a study by Lochman, Wayland and White (1993) suggests that aggressive adolescents may not necessarily be deficient in each of the problem solving steps.

Rather, it may simply be their selection of goals that reflects poor problem solving skills. Aggressive and non-aggressive male adolescents were described a situation in which a new kid at school bumps into you in the hall, hitting you really hard and knocking your books to the floor. Each adolescent was then asked to rate the importance of four different goals (dominance, revenge, avoidance and affiliation), their main goal in this situation and how they would achieve each goal. Results indicated that aggressive and non-aggressive adolescents did not differ in how they would achieve each of the four goals, but they did differ with respect to their choice of the main goal for the situation, where the aggressive adolescents preferred dominance and revenge. It should be noted that not all subjects in this study were young offenders, however, those that reported crime against other people were strongly associated with dominance-oriented goals.

Ross and Fabiano (1985) have identified other cognitive deficits that are associated with young offenders. Low self-control, defined as the omission of thought between impulse and action, is often characteristic of these youth and refers to failing to stop and think about a situation before acting. As a result of their deficiencies in problem solving, young offenders do not reflect on the whole situation and fail to generate alternative courses of action, thus acting impulsively on their first thought.

The thinking styles of young offenders are considered to be rigid and concrete (Ross & Fabiano, 1985). Piaget explained the development of cognitive abilities in terms of 4 stages where an individual's thinking becomes progressively more complex. He defined the organization and mental representations of one's internal thoughts as a schema and indicated that each individual's schema changes with biological maturation and personal life experiences. These changes are a result of assimilating and accommodating new information into the schema

that help the individual adapt to their surroundings. Assimilation refers to simply adding or integrating new information from the external world into the internal world, where accommodation involves modifying old schemas so that new information will be compatible with current thought processes representing the external environment (Rawana, Cryderman & Thompson, 1998). Adolescents with rigid thinking fail to accommodate and thus do not alter old schemas, even when they no longer correspond with the environment. Therefore, these individuals are unlikely to change their opinions and views, or consider other alternatives to a situation, despite contrary evidence (Ross & Fabiano, 1985).

Piaget's third stage, the concrete operational stage represents the thinking of most children aged 6-11. These individuals rely on concrete and observable information to understand their world. They approach situations in a logical manner, focusing on step by step reasoning. However, during the formal operations stage (11-18 years), the last stage of Piaget's cognitive development, adolescents move beyond concrete thinking and begin to develop more complex cognitive processes that allow for abstract thinking and the generation of hypotheses. Adolescents learn to focus on "deeper" aspects of a situation as opposed to the obvious ones (Rawana et al., 1998). While most individuals develop these cognitive abilities during adolescence, some adolescents still think in accordance with the concrete operational stage. This is the case with young offenders. These individuals tend to have thinking patterns that are characterized as more action oriented as opposed to abstract and reflective. Because they are more concerned with concrete things that actually exist, young offenders have trouble thinking about future events and subsequent consequences (Ross & Fabiano, 1985). Also related to this thinking, is the difficulty that young offenders often experience in understanding the thoughts and feelings of others, which is described as empathy and social perspective taking. The

inability to consider another's point of view or egocentric thinking described previously as a primary cognitive distortion, often creates negative reactions or rejection from others, particularly peers and leads to deviant behavior (Ross & Fabiano, 1985).

Another characteristic of young offenders is their external locus of control. Similar to the blaming cognitive distortion, instead of focusing on internal issues, young offenders usually look to external sources that are out of their control to explain their behavior, such as blaming the victim, their friends, or alcohol (Ross & Fabiano, 1985).

In view of the various social skill deficits that characterize young offenders, it becomes understandable why such individuals engage in inappropriate or immature behaviors. Their lack of problem solving abilities, coupled with their distorted views and beliefs will evidently lead to behavioral difficulties.

Social Developmental delays

Another characteristic of young offenders is their delay in socio-moral development (Nelson, Smith & Dodd, 1990). This delay is reflected in the continued presence of immature and superficial moral reasoning as well by the high degree of egocentric thinking which are both characteristic of preadolescence (Kohlberg, 1984). Moral development occurs through the progression of stages towards mature moral reasoning (Gibbs, 1993). A moral stage represents a cognitive schema about moral issues that influences one's interpretations and evaluation of an event as well as one's overt behavior (Gibbs, Arnold, Ahlborn, & Cheesman, 1984).

Research on moral reasoning stems from Kohlberg and the development of his six stages of moral reasoning. Kohlberg grouped the six stages into three levels, each with two stages. The first level is the Preconventional level, which represents the moral reasoning of most children under the age of 9. These individuals are typically egocentric in their thinking and are unable to

understand another person's perspective (Gibbs, 1993). Therefore, their reasoning regarding moral issues is immature and superficial. An individual with Stage 1 moral reasoning abides by the belief the "might is right" and bases morality on physical characteristics. An example of a stage 1 schema would be "if you are big and powerful, whatever you say is right and whatever you want to do is fair". Although individuals in Stage 2 look beyond physical characteristics, their moral reasoning is still preconventional. Morality in this stage is based on an exchange of favors and cognitive schemas represent such thoughts as "I did this for you, so you'd better do that for me" and asking "what's in it for me" before helping or obeying others.

The Conventional level reflects the moral reasoning of most adolescents and adults. The two stages in this level (3 and 4) represent mature moral judgement where social norms are accepted and values such as telling the truth, refraining from stealing, helping others and saving lives are supported. Stage 3 is based on Mutuality: treat others as you would hope they treat you", whereas stage 4 is based on contributing to society through co-operation and respect for others (Gibbs, 1993).

The third level is the Post-conventional level and according to Kohlberg, only a few adults reach this level. Individuals in the fifth and sixth stage of moral reasoning understand the rules of society and that rules serve to improve society, however, they also believe that laws can be flexible and thus their behavior is guided by their ethical and moral principles instead of by the rules of society. Stage 5 emphasizes human rights and social welfare, where morality in stage 6 is based on universalizable, reversible and prescriptive general ethical principles. These individuals consider all perspectives of a situation and they define what people should and must do, not just what they should *not* do or what is considered immoral (Berndt, 1997).

Gibbs, Basinger and Fuller (1992) adopted Kohlberg's model of moral reasoning, however, their model only includes the first four stages or the pre-conventional and conventional levels based on the fact that most individuals never achieve the post-conventional level of moral reasoning (Berndt, 1997). Gibbs et al. (1992) use the four stages to classify the moral judgement of young offenders. Research indicates that the moral reasoning of young offenders is representative of the pre-conventional stage, where their moral judgement is immature due to their egocentric and distorted thinking (Gibbs, 1993).

According to Kohlberg (1984) social interaction plays an important role in the development of moral judgement, as it provides opportunities for different role taking thus, stimulating moral development (Kohlberg, 1984). Therefore, those deprived of opportunities to interact with various groups lack the opportunity to engage in role or perspective taking. This in turn results in a failure to develop cognitive schema that buffer against anti-social influences, which are obtained through mature interpersonal relationships (stage 3) and societal structures (stage 4). Therefore, youths deprived of cognitive buffers often display immoral and anti-social behavior.

However, not all individuals with immature levels of moral reasoning engage in anti-social behavior (Gibbs, 1993). So what leads one to go from immature moral reasoning and egocentric bias to anti-social and criminal behavior? It is one's thoughts and beliefs, particularly erroneous thoughts or cognitive distortions (Gibbs, 1993).

The various problems that are associated with young offenders are all related to cognition and are therefore interconnected. The following example demonstrates how cognitive problems can lead to anti-social or delinquent behavior.

Based on learning and personal experience an adolescent has yet to develop the more complex cognitive processes that are achieved during Piaget's formal operations stage. Therefore, relying on his concrete and immature thinking patterns, the adolescent maintains an egocentric bias where he does not consider the perspectives of others and sustains complete focus on himself. This constant self-focus develops into the primary cognitive distortion, self-centered thinking, which supports such attitudes as "If I really want something, it doesn't matter how I get it" (Gibbs, Potter & Goldstein, 1995). This distorted and self-centered thinking may lead the adolescent to engage in anti-social behavior, such as stealing or seriously beating someone up to obtain something that he wants. This type of behavior, if severe enough, can have harmful consequences, and create stress within the adolescent. The stress is generated from the victim's distress or from internal cognitive dissonance. The cognitive dissonance exists as a result of an imbalance of perception between the adolescent's behavior (perceived as harmful) and the adolescent himself (perceived as not a harmful person) (Gibbs, 1993). Now, the adolescent must find a way to alleviate these overpowering feelings of stress. However, his moral judgement is immature and he is lacking many social problem-solving skills. As a result, he is unable to develop appropriate alternatives to the situation such as finding another way to obtain the desired object. Thus, he resorts to secondary cognitive distortions, thinking to himself, "If you know you can get away with it, only a fool wouldn't steal" (minimizing/mislabeling) or "If people don't co-operate with me, it's not my fault if someone gets hurt" (blaming). These attitudes serve to inhibit the induced stress in addition to rationalizing and reinforcing the aggressive or anti-social behavior.

Peers influences on criminal behavior

Peer relations have been considered another important factor associated with criminal behavior in youths. Research has indicated that having delinquent friends significantly increases the probability that a youth will engage in criminal behavior (Agnew, 1991; Brownfield & Thompson, 1991; Hollin, 1992).

Peers become of significant importance during adolescence. Following the social learning theory that entails learning by watching others and imitating their behavior, it would seem that adolescents have ample opportunity to observe and model the behavior of their friends. Therefore, if one's friends are displaying criminal behavior, it is these behaviors that will be imitated and reinforced. Furthermore, it is not only behaviors that are modeled, but also various attitudes and beliefs supporting criminal behavior are learned, becoming part of the individual's schema that help to reinforce anti-social behavior (Hollin, 1992).

Agnew (1991) investigated the relationship between peer delinquency and criminal behavior in youths and considered the impact of three group dynamic variables: attachment, contact and the extent to which peers present delinquent patterns. Attachment was defined as the extent to which the adolescent feels emotionally close to and respects their peers. Imitation of behavior occurs more often with people we like and respect. For that reason, high attachment and closeness to the delinquent peer group results in more modeling of delinquent peer behavior and thus more reinforcement by peers. The more contact or time spent with delinquent peers and the more these peers display delinquent behaviors, the more opportunity that exists for these delinquent peers to function as models and transmit anti-social values (Agnew, 1991).

Supporting previous findings, Agnew (1991) found delinquent peers to be a strong predictor of criminal behavior in youths. However, this relationship depends on various factors.

An adolescent has an increased risk for engaging in criminal behavior when a close relationship is formed with peers who engage in serious criminal behavior (burglary, stealing large amounts of money, selling “hard” drugs). On the other hand, Agnew’s results indicate that adolescents do not appear to be influenced by delinquent peers when the criminal behaviors these peers display are minor (vandalism, petty theft, bullying) or when the relationship between an adolescent and his peers is not very strong (low emotional attachment and contact).

Consequently, Agnew (1991) suggests that reducing criminal behavior in youths may not necessarily require the total elimination of relationships with delinquent peers. Rather, one may simply need to focus on changing this relationship by creating less attachment and closeness as well as teaching the youth how to resist peer pressure and altering their beliefs about criminal behavior.

Another aspect concerning peer influences and youth criminal behavior is rejection by non-delinquent peers. Peer rejection in childhood has been found to predict criminal behavior in adolescence (Hollin, 1992). Dishion, Patterson, Stoolmiller and Skinner (1991) found that 10 year old boys who were defined as “rejected” by peers at age 10 were significantly more likely to associate with anti-social peers at age 12 than those defined as “average”. This study also reported that boys who were not well liked by schoolmates, had low academic skills and engaged in anti-social behavior at age 10, were more likely to associate with anti-social peers two years later at age 12.

It appears then, that young offenders suffer from many problems and deficits that are often interrelated and exacerbate one another. Lack of problem solving and social skills results in immoral and inappropriate behavior that often leads to rejection by peers, which in turn can lead to academic difficulties and association with anti-social and delinquent peers. And all of

these behaviors tend to be guided by the youth's erroneous thoughts and cognitive distortions that serve as reinforcement.

Cognitive-Behavioral Interventions

Although the ultimate goal in treating young offenders is reducing recidivism, the process by which this is achieved is by focusing on the various factors that are associated with criminal behavior in youths. Research indicates that most treatment approaches that successfully reduce recidivism incorporate a cognitive component or some technique that aims to change offenders' attitudes, values and beliefs supporting anti-social behavior (Gendreau & Andrews, 1990; Ross & Fabiano, 1985). Thus, it seems appropriate to deliver a treatment program to young offenders that focuses on cognitive aspects and the various deficiencies and delays that appear to be associated with young offenders.

Cognitive-Behavioral intervention programs with young offenders apply various techniques that attempt to alter social cognition (Hollin, 1993). Such techniques include self-instructional training, modeling, role-play and discussion (Gibbs, Potter, & Goldstein 1995).

One component found in many cognitive-behavioral programs is problem solving skills training. It aims to teach youth the various skills they appear to lack such as recognizing and defining problems, deciding on desired goals or outcomes, generating solutions and considering possible consequences to their actions (Hollin, 1992). Problem solving skills training has been found to provide significant gains in the problems solving skills of aggressive young offenders (Goldstein, 1993).

Guerra and Slaby (1988) also found support for this type of training. Based on Dodge's social-information processing model and a study by Slaby and Guerra (1988) that identified the

association between problem solving skills and adolescent aggressive behavior, a 12 session cognitive mediation training program was implemented with aggressive adolescent offenders. The program focused on remediating the various social problem-solving skill deficits that have been identified with young offenders and modifying beliefs that support the use of aggression. Basic instruction and group discussions regarding hypothetical situations were used to remediate the problem solving skills identified in Dodge's social information model. These skills involved attending to relevant and nonhostile cues when defining a social problem and setting a goal, seeking additional information, generating a variety of responses and consequences and prioritizing potential responses in terms of their effectiveness in providing goal-directed, legal and nonviolent outcomes. The adolescents were also required to develop and discuss arguments refuting the common held beliefs that support aggression. Two other groups served as controls for comparison. One group received no treatment and the other controlled for attention received by professionals by meeting to discuss basic skills related to career preparation, instead of addressing social-cognitive skills related to aggression. Compared to both control groups, adolescents that received the cognitive mediation training showed significant gains in problem solving skills, decreased endorsement in beliefs supporting aggression and a decrease in aggressive, impulsive and inflexible behaviors. A two-year follow up revealed that although adolescents in the treatment group did have a lower percentage of recidivists than the two control groups, these differences were not significant. This may have been related to the reduced sample size at the two-year follow up (Guerra & Slaby, 1988).

Because many young offenders simply do not know how to handle or behave in certain situations, social skills training is often implemented to teach these youth the basic steps related to interpersonal interaction and communication (Hollin, 1992). Social skills training, also called

Skillstreaming involves the application of three main techniques (Goldstein & Glick, 1987). First, various behaviors or skills are selected to teach the youth, such as negotiation or how to deal with peer pressure and then each skill is broken down into a series of behavioral steps. The first technique is *modeling* where the group trainers act out each of the steps and model for the youth how to effectively use the skill. After a brief discussion about the skill, each group member then has the opportunity to try out or *role-play* the skill with the other youth. The role-plays are followed by immediate *feedback* with respect to the youth's performance and application of each of the steps involved in the skill. The youths are encouraged to try out the skills and practice them in their real life experiences (Hollin, 1993).

Although teaching social skills to young offenders has produced some significant gains in the acquisition of certain skills, these gains are not always maintained or generalized to other settings (Goldstein, 1993). They also do not appear to be associated with decreasing recidivism (Hollin, 1990b).

Teaching young offenders how to gain or modify self-control often involves the use of techniques that focus on changing the youth's self-talk (Hollin, 1993). Self-talk or "inner" speech is a very important aspect related to behavior. It is used to make self-evaluations regarding our behavior which leads to self-reinforcement when positive events occur and self-punishment for negative events (Hollin, 1992). Self-instructional training is a technique that focuses on changing one's self-statements and has been associated with increasing self-control as well as reducing anger (Gibbs, Potter, & Goldstein, 1995).

Incorporating a component on Self-talk and teaching youth how to become aware of their self-talk, particularly negative self-statements is an important aspect of cognitive-behavioral programs for young offenders because of its direct relation to the many cognitive distortions and

faulty beliefs that young offenders hold (e.g. EQUIP, Gibbs, et al., 1995). Since cognitive distortions often reinforce aggressive behavior, self-talk is also a primary focus in anger management programs (EQUIP, Gibbs et al., 1995; ART, Goldstein & Glick, 1987).

The goal of anger management training is not aimed at eliminating anger but focuses on teaching youth how to reduce, manage or gain control over their anger and aggression (Goldstein & Glick, 1987). Most anger management programs consist of three components. *Cognitive preparation* explains to youth about the cause and effects of anger and teaches youth how to become aware of physiological cues of anger or other internal or external triggers (Goldstein, 1993). *Skill acquisition* focuses on teaching coping strategies such as altering one's self-talk and assertion and relaxation training (Hollin, 1993). *Application training* consists of the youth practicing the newly learned skills through role-plays and homework assignments (Hollin, 1993). Numerous studies have applied anger control techniques to young offenders and found decreases in aggressive behavior as well as decreases in institutional offending (Hollin, 1992).

Another component frequently included in cognitive-behavioral interventions for young offenders is moral developmental discussions (Hollin, 1992). Aimed at targeting the immature and developmentally delayed moral reasoning in young offenders, moral discussions provide opportunities for social perspective taking regarding various socio-moral dilemmas (Gibbs, 1993).

Research indicates that such moral discussions can in fact increase the moral reasoning of some young offenders. A study by Gibbs, Arnold, Ahlborn and Cheesman (1984) provides support for moral discussions groups. Sixty male and female young offenders were assigned to one of three groups. A consensus dilemma discussion group involved discussions among the youth regarding various socio-moral dilemmas and the group was required to reach an agreement

regarding the best decision and best reasoning. Group 2 consisted of a non-consensus dilemma group where the youths simply discussed the dilemmas but were not required to reach an agreement regarding the best decision or reasons for the decision. The third group was a no-discussion group that did not meet for any discussions and were simply tested before and after the 8-week program. Result indicated that 87.5% of the youths that met for discussions shifted from stage 2 to stage 3 of moral reasoning, whereas only 14.3% of the control subjects evidenced this shift. An important consideration regarding moral discussion groups as pointed out by Gibbs et al. (1984) is the group formation. The group should consist of individuals with different levels of moral reasoning so that various perspectives may be presented and challenged.

Although moral-cognitive interventions with young offenders can provide gains in socio-moral reasoning, these gains are rarely associated with a reduction in anti-social behavior (Gibbs, Goldstein & Potter, 1995). Niles (1986) divided 59 adolescent and pre-adolescent delinquents into three groups similar to those described in the study by Gibbs et al. (1984). Results indicated that 6 out of 7 youths in the treatment condition (consensus group) shifted from Stage 1 to stage 2 of moral reasoning and no stage shifts were made in the other two groups. However, these significant gains in moral reasoning did not lead to behavioral improvements.

Risk/Need Assessment

The various components incorporated in a treatment program for young offenders appears to be one aspect that impacts on reducing recidivism. However, Andrews, Zinger et al. (1990) identify three principles that also influence the effectiveness of a treatment program: risk, need and responsivity.

The *risk* principle states that treatment is more likely to be effective when services are matched with the risk level of an offender. That is, higher levels of service should be reserved for higher risk cases and lower risk cases should receive less intensive intervention (Andrews, Zinger et al., 1990). Interestingly, it has been reported that treatment effects are greater among high-risk cases compared to low risk cases (Andrews, Zinger et al., 1990).

Risk refers to the probability that an offender will engage in future criminal behavior and is determined by assessing risk factors (Andrews, Zinger et al., 1990). Risk factors can be static or dynamic and include individual and environmental attributes such as attitudes supporting criminal behavior, delinquent peers and poor parental supervision (Andrews et al. 1990). Therefore, the assessment of risk factors is important as it can identify the level of service that an offender should receive as well identify the likelihood that an offender will recidivate.

The *Need* principle suggests that services should aim to reduce criminogenic needs. Criminogenic needs refer to the risk factors that are dynamic; that when changed, they are associated with changes in recidivism (Andrews, Zinger et al., 1990). Examples of criminogenic needs that should be targeted include changing anti-social attitudes and beliefs, increasing self-control, social skills and reducing drug and alcohol dependencies (Andrews et al., 1990). Targeting non-criminogenic needs such as self-esteem, anxiety or depression is not usually associated with lower recidivism rates (Andrews et al., 1990).

The *responsivity* principle refers to selecting interventions and providing services to young offenders that are capable of targeting criminogenic needs and are appropriately matched to the learning styles of young offenders (Andrews et al., 1990). Services that have been identified as appropriate appear to be those based on behavioral and social learning principles (cognitive-behavioral) and focus on skill enhancement, interpersonal influence and cognitive

restructuring (Andrews et al., 1990). In addition, individual factors such as conceptual and interpersonal levels of maturity should be taken into consideration regarding treatment, where individuals with lower conceptual and interpersonal levels should receive more structured treatment (Andrews, Zinger et al., 1990). Other moderators of treatment effectiveness may be age, gender, ethnicity, motivation, and psychopathy (Andrews, Zinger et al., 1990).

Therefore, according to Andrews and colleagues, a treatment program that reduces recidivism is one that is delivered to high risk young offenders, targets criminogenic needs and matches the learning styles of the offenders.

In order to achieve these goals, the risk and needs of an offender must first be determined. The Level of Supervision Inventory (LSI) is an instrument that is used to assess an offender's level of risk and identify certain needs that can direct treatment planning (Clements, 1996). The LSI has been shown to predict offender behavior during and after treatment (Motiuk, Motiuk & Bonta, 1992) and has shown that changes in criminogenic needs, identified by LSI, were associated with changes in recidivism (Gendreau, Cullen & Bonta, 1994). Although the LSI was used primarily with adults, an extension of this tool is the Youth Level of Supervision Inventory that was created to assess the risk and needs of "young" offenders. However, the most recent assessment tool developed from the LSI is the ministry risk/needs assessment form (MRNAF, Hoge, Andrews & Leschied, 1994). This instrument, which serves to assess the risk level and needs of young offenders between the ages of 12 and 15 evaluates items that are grouped into eight categories, thereby providing a risk score for each category as well as an overall risk score. The eight categories that make up one section of the MRNAF are prior/current offenses, family circumstances/parenting, education/employment, peer relations, substance abuse, leisure/recreation, personality/behavior and attitudes/orientation. The MRNAF

has been identified as “a robust measure of risk”, significantly differentiating between recidivists and non-recidivists (Jung, 1999).

Multi-modal programs

Research investigating the rehabilitation of young offenders indicates that structured multi-modal programs are more effective in reducing recidivism than less structured approaches (Hollin, 1993). Aggression Replacement Training (ART), developed by Goldstein and Glick (1987) is a multi-modal program for young offenders that combines three components: Anger control training, skillstreaming and moral education.

Anger control training consists of educating youth about what they “should not” do in certain situations. This is accomplished by teaching the youth ways to inhibit their anger, aggression and anti-social behavior. In contrast, Skillstreaming focuses on teaching youth what they “should” do in situations that provoke such responses as anger and aggressive behavior. Like Social skills training, youth learn through the use of role-plays and trying out various new skills and behaviors. Moral education consists of discussions revolving around moral dilemmas. Although most studies using the group discussion format have failed to associate developmental shifts in moral reasoning with a reduction in anti-social behavior, Goldstein and Glick (1987) argue that a lack of appropriate skills related to pro-social behavior reduces the youth’s ability to engage in mature moral behavior.

Therefore, the combination and interaction between these three components was thought to provide youth with increased pro-social skills that would result in less anti-social behavior. Evaluations of ART indicate such findings. In one study, results show that compared to control groups, youth receiving 10 weeks of ART acquired and maintained social skills as well as

showed decreases in the intensity and the number of acting out behaviors (Goldstein & Glick, 1987). Similar results were found with a replication of this study using the previous control group as the present treatment group. In addition, at a three month follow up, youth who had received ART were rated as functioning significantly higher in areas of home and family, peers, legal and overall community adjustment (Goldstein & Glick, 1987).

The application of ART with more serious young offenders also revealed significant gains in social skills as well as moral reasoning. However, there were no significant differences between the youths receiving ART and the control groups with respect to the reductions in intensity and number of acting out behaviors. This was probably due to a floor effect. That is, because these more serious young offenders resided in a maximum security facility with stricter sanctioning and controls, they had lower rates of deviant behavior before treatment and thus any behavioral improvements would have been hard to detect after treatment because their behavior rates could not get much lower (Goldstein & Glick, 1987).

Another study compared the re-arrest rates of young offenders after three months of ART and found that youths who received ART had a 30% re-arrest rate whereas the control group had a 43% re-arrest rate (Goldstein & Glick, 1987). Therefore, the multi-modal ART program appears to have potential for reducing recidivism.

Another multi-modal program developed for the rehabilitation of young offenders is the EQUIP program (Gibbs, Potter & Goldstein, 1995) which stems from ART (Goldstein & Glick, 1987) and Positive Peer Culture (Vorrath & Brendtro, 1985).

Positive Peer Culture (PPC) is an adult guided but youth run small group treatment program for anti-social youth that emphasizes the importance of a group, particularly peers, involved in motivating and creating change (Vorrath & Brendtro, 1985). PPC aims to change the

attitudes, values and self-concept of youth through the group that provides a “climate for change” (Vorrath & Brendtro, 1985). The main principle of PPC is that as youth engage in helping their peers solve various problems, they not only become of value to others, which increases their self-concept and self-respect, but they also help themselves.

The format of PPC consists of four parts: Reporting problems, awarding the meeting, problem solving and a summary (Vorrath & Brendtro, 1985). At the beginning of every group meeting, each youth is required to describe a problem they have recently had or are currently experiencing. A behavior list comprising 12 categories of problem behaviors is used by the youth to report problems. The 12 problem behaviors are categorized as follows: low self-image, inconsiderate of others, inconsiderate of self, authority problem, misleads others, easily misled, aggravates others, easily angered, stealing, alcohol or drug problem, lying and fronting.

Next, the group must reach an agreement as to whom should “be awarded” the meeting. That is, which youth has the most severe problem and requires immediate attention and help from the group. The main portion of the group meetings centers on understanding and helping to solve the youth’s problem. Finally, the meeting ends with the group leader summarizing the group’s accomplishments and points out how the youth can become more effective in problem solving (Vorrath & Brendtro, 1985).

PPC consists of 1.5 hour long sessions, 5 days a week. In addition, based on the assumption that peers of the same-sex in a reference group strongly influence the development of a youth’s self-concept and self-identity, it is recommended that groups in PPC consist of members of the same sex (Vorrath & Brendtro, 1985).

Although PPC has been shown to increase self-esteem and an internal locus of control among young offenders (Vorrath & Brendtro, 1985), it has not been shown to reduce recidivism (Gibbs, 1993).

The ideas proposed by Goldstein and Glick (1987) that moral education needed to be supplemented with other skills (social skills and anger management) in order to produce significant behavioral outcomes (reduced recidivism) lead to the formation of ART. Similarly, Gibbs, Potter and Goldstein (1995) reasoned that in order for PPC to reduce recidivism in young offenders, youth needed to learn skills that would provide them with the ability to help their peers. Therefore, the EQUIP program combines the training skills of ART with the principles of PPC, such that youth will now be “equipped” to help their peers (Gibbs et al., 1995).

Instead of the five weekly group meetings that characterize the format of PPC, EQUIP consists of three mutual help meetings and two equipment meetings. The equipment meetings focus on the three components of ART: anger control training, skillstreaming and moral education. However, there is an increased importance placed upon cognitions, specifically cognitive distortions. Along with the 12 categories of problem behaviors, youth also learn four categories of thinking errors: self-centered, minimizing/mislabeling, assuming the worst and blaming others. These terms are used throughout the equipment meetings to help youth better understand and change their behavior. The sessions related to anger management also aim to correct thinking errors and therefore include teaching such skills as how to become aware and monitor one’s self-talk, thinking ahead to consequences and about others, self-evaluation and talking back to negative self-talk or thinking errors (Gibbs et al., 1995).

The mutual help meetings are very similar to the group meetings in PPC. However, with the increased focus on cognition, youth are not only required to report their problem behaviors,

but they also must explain the underlying cognitive distortions that reinforced their behavior. This “helps keep the group’s attention appropriately focused on behaviors that have harmed others” (Gibbs et al., 1995, p.11) and provides for deeper and more effective discussions.

Although the updated version of EQUIP concentrates more heavily on cognition, a preliminary evaluation of the program indicates its potential in changing anti-social behavior and reducing recidivism among young offenders (Leeman, Gibbs & Fuller, 1993). The study consisted of male adolescent offenders at a medium security correctional facility whom were randomly assigned to the treatment group (EQUIP) or one of two control groups (a passage of time control group or motivational message group).

Results indicated that compared to both control groups, youth receiving treatment (EQUIP) evidenced significant improvement in social skills and institutional behavior. Although no significant gains in moral reasoning were found, moral reasoning gains for the treatment group did however correlate significantly with decreased recidivism at the one year follow up. More importantly, youth receiving the EQUIP program showed significantly less recidivism than the combined control groups at the one year follow up. The effects of this program also appear to be stable. The recidivism rate for the EQUIP group was 15% at the 6-month follow up and remained at 15% during the one year follow up, whereas the recidivism rate for the combined control groups was 30% after 6 months and increased to 40% at the one year follow up.

The present study

The purpose of the present study is to implement and evaluate a cognitive-behavioral treatment program with a group of moderate-high risk young offenders. The program will attempt to extend the cognitive-behavioral interventions currently implemented at a secure

custody facility in Ontario by incorporating the structure and various parts of the EQUIP program.

The cognitive-behavioral interventions at the William W. Creighton Youth Services in Northwestern Ontario target the criminogenic needs of Young offenders that are identified by the Ministry Risk/Need Assessment Form. Creighton's focus on cognitions and teaching youth how to "tune-in" and modify their thinking is consistent with cognitive theories, and is based on the premise that how one thinks about an event influences subsequent feelings and behavioral responses. Therefore, the key to gaining personal control over dysfunctional emotions and behavior is based on understanding and controlling one's thoughts.

The staff at Creighton Youth Services focus on making youth accountable for their actions. Youth are taught "smart thinking tools", with the assumption that these tools will help youth challenge their irrational thinking related to anti-social/criminal behavior and that the youth will learn how to problem solve in a pro-social manner. These tools are provided through the implementation of over 150 cognitive-behavioral exercises that target specific areas of risk for adolescents. Such areas include: self-talk, distorted thinking, offenses/dispositions, family factors, educational programs, peer relations, substance abuse, leisure/recreation, anger management and attitudes/orientation.

The EQUIP program shares with the Creighton Youth Services, the same philosophy, principles and various tools that are involved in changing the anti-social behaviors of young offenders. However, the EQUIP program offers a neatly, structured 10 week program that provides an opportunity for youth to try out and practice the skills they learn.

By integrating equipment and mutual help meetings, youth not only learn various skills, but these skills become strengthened and reinforced as they apply them in the mutual help

meetings. Creating a positive peer culture is much easier when youth are “equipped” to do so. Therefore, youth gain skills for themselves and they gain increases in their self-esteem as they realize that they can be of value to others and help others with their problems. This will also give the youth more confidence in their ability to apply these skills.

In addition, the structure or format of the EQUIP program is valuable. By incorporating the three components (cognitive distortions/anger management, social skills and mature moral judgement) and teaching them concurrently, various issues or skills are covered from different points of view. This helps the youth see the emerging themes and reinforces the application of the skills. For example, a common theme across all three target areas is becoming less self-centered. By teaching youth how to think (cognitive distortion) and act (social skills) in less self-centered ways and discussing moral situations involving self-centeredness, the youth are better able to see the importance and make the connections between the skills. Also, role-playing the social skill serves as a warm-up for the group discussions on moral dilemmas. During role-plays, the youth actually act out the moral values and thus when the group begins to discuss these values, they will have a better understanding and grasp of the importance or reality of the situations.

Therefore, the unique structure of EQUIP and the inclusion of equipment meetings and mutual help meetings, appears to offer some possible extensions to the cognitive-behavioral program currently provided by the Creighton Youth Services.

Thus, consistent with both programs, the present program aimed to change the anti-social attitudes and beliefs of young offenders by providing them with the skills and knowledge they lack. In accordance with the EQUIP program, the present program provided the youth with an opportunity to practice these skills and become more aware of their cognitive distortions through

the mutual help meetings, where youth attempted to help their peers, which in turn helped change their own behavior.

The equipment meetings focused on the three components targeted in EQUIP: anger management, social skills and mature moral judgement, however, a few supplementary exercises regarding peer pressure were included from the cognitive-behavioral manual provided by the Creighton Services.

It was hypothesized that compared to a no treatment control group and a group receiving the regular cognitive behavioral programming, youth receiving the present cognitive-behavioral program based on the EQUIP program would show improvements in both the process and outcome variables. That is, youth would evidence increases in social skills and in their ability to manage anger, as well as decreases in cognitive distortions and decreases in delinquent behavior as a result of the present program.

Methods

Institutional setting

The present study was conducted through the William W. Creighton Youth Services in Thunder Bay, Ontario, which provides detention, custody and community support services to phase I young offenders (youth who have committed a criminal offense between the ages of 12 and 16). The Equip program was implemented at the J.J. Kelso Centre, which is an 18-bed secure custody facility for young offenders who are considered to be at moderate to high risk for re-offending. The primary author and a full time male staff member from the J.J. Kelso Centre served as the program facilitators. Subjects constituting the alternative treatment group were selected from the secure custody facility (J.J. Kelso) as well as from the two open custody facilities, which each house 8 young offenders. The control subjects included offenders serving probation periods in the community and were receiving community intervention services on a voluntary basis.

Participants

Although the expected total number of participants was 48, with 16 in each of the three groups, this was not possible due to difficulties in attempting to obtain a group of 8 young offenders with a minimum sentence of 10 weeks over a similar time period, within the same custody facility. Therefore, the actual total number of participants in the study was 23 (7 Equip, 8 alternative treatment and 8 control). There were 5 females and 18 males in the total sample, with ages ranging from 13 to 17 years ($M = 14.82$, $SD = 1.15$). Based on the Ministry Risk/Needs Assessment form, offenders from all three groups were classified as moderate to high risk and

were serving sentences for a variety of offences ranging from break and enter to murder. Participation in the Equip program was strictly voluntary. Furthermore, the offenders were advised that if they opted not to participate in the Equip program they were required to attend the regular alternative cognitive-behavioral program currently implemented at the custodial facilities.

The Equip program

The youth in the Equip met for 1.5 hours, five days a week (Monday-Friday) for 10 weeks. The youth were in charge of the mutual help meetings that followed the proceeding steps during each meeting.

1) Introduction

The group leader, called the coach, began the meeting by reflecting on the past meeting and discussed the group's progress, success and provided encouragement. This part of the meeting takes about 5 minutes.

2) Reporting problems

Sitting in a circle, each youth took their turn in reporting a problem they have recently experienced. Problems were to be reported as concisely as possible, using the 12 categories of problem behaviors (Vorrath & Brendtro, 1985) to label their problem and the 4 categories of cognitive distortions (Gibbs, Potter & Goldstein, 1995) to explain how their behavior was reinforced. This step usually takes 15 minutes.

3) Awarding the meeting

After each group member had described a problem, the group decided who needed the meeting the most and would therefore be awarded the meeting. This decision was based on the following process (Vorrath & Brendtro, 1985):

Rotating around the circle again, each youth stated whether or not he/she wanted the meeting and if so, was required to state their reasons. For example: "I want the meeting to work on my authority problem" (Vorrath & Brendtro, 1985, p.89). Next, each youth made a recommendation stating whom they think needed the meeting the most and why. For example: "I think Bill should have the meeting to work on his stealing problem: (Vorrath & Brendtro, 1985, p.90). After each member made a recommendation, the decision making process continued as youth could change their recommendation after hearing others'. The group needed to eventually reach a unanimous decision such that each member would be committed to helping the youth.

4) Problem Solving

Approximately one hour was devoted to solving one group member's problem. The group spent this time discussing the problem together, identifying the various cognitive distortions that were related to the particular behavior, which would provide a better understanding of the problem and helped to guide the group in developing ideas regarding solutions. The group was expected to decide on an action plan that was to be implemented by the youth awarded the meeting in attempt to resolve the particular behavioral problem.

Youth often struggle with this task and therefore may require assistance from the coach. However, the coach is not expected to tell the group what to do, but instead, coaches or helps redirect the group's attention to particular topics. This was accomplished through the use of questions. For example, if a group wandered off topic, the coach may ask "What is the problem

the group is working on?” or “What does this have to do with Bill’s problem?” (Vorrath & Brendtro, 1985, p.93). Thus, the coach listened to the group’s discussion and only intervened when felt it necessary to do so and only through the use of questions.

5) Summary

The last step consisted of a 5-10 minute summary by the coach. The coach could concentrate on the person awarded the meeting or discuss various issues such as how certain individuals contributed or helped during the session. Suggestions could be offered regarding how the youth could become more effective in their problem solving or the coach could simply make encouraging comments.

The equipment meetings were introduced next, which provided the young offenders with the skills (equipment) they need to be more effective in helping their peers during the mutual help meetings (Gibbs et al., 1995). Youth attended the equipment meetings twice a week (Tuesdays and Thursdays), leaving Mondays, Wednesdays and Fridays for mutual help meetings. The equipment meetings were based on the 10-week EQUIP program (Gibbs et al., 1995) and focused on correcting cognitive distortions and managing anger, teaching social skills and moral education. However, the present program elaborated on the area of peer pressure, by including various activities from the treatment program presently delivered at through the Creighton Youth Services. Following is a description of the three areas that were targeted in the equipment meetings.

Correcting thinking errors and managing anger

In this portion of the equipment meetings youth learned how to manage their anger and gain self-control. These skills were acquired through the correction of thinking errors, both

errors of commission (cognitive distortions) and omission (cognitive deficiencies). The skills and activities for this component of the 10-week program were as follows:

Week 1: Evaluating and relabeling anger/aggression

Week 2: Key role of mind in anger, monitoring mind and body, reducing anger

Week 3: Monitoring and correcting thinking errors

Week 4: More techniques for reducing anger: relaxation, introduction to self-help daily logs (see Appendix A for self-help logs)

Week 5: Powerful self-talk techniques for reducing anger: thinking ahead to consequences and TOP (thinking of the other person)

Week 6: Constructive consequences, use of “I” statements

Week 7: Self-evaluation (statements and correction of thinking errors)

Week 8: Reversing (realizing how one aggravates others, correcting self-centered tendencies)

Week 9: More consequences for others, correcting distorted self-views, empathy for victims

Week 10: More correction of distorted self-views, grand review

Teaching Social Skills

The format of this component of the equipment meetings followed the typical four step behavioral sequence used in learning social skills: observe the skill performed, try the skill (role-play), discuss the skill and practice the skill.

At the beginning of the first session, the group leader discussed these four steps and their importance in learning a skill. Each session then began with the introduction of the skill to be learned that day followed by each group member receiving a “skill card” identifying the skill and steps required to perform the skill. Next, the group discussed the skill with respect to past situations when this skill would have been helpful and then the group decided which members

would be responsible for providing feedback on a particular step. (Two members are usually responsible for one step). One group member then read aloud from the skill card, the steps involved in the skill.

After the skill was introduced, the four behavioral steps took place. The group leader, also called the “equipper”, demonstrated or modeled the skill with the help of a staff member. The group leader then asked for feedback from the group members responsible for each step. The next step involved each youth trying out the skill through role-playing. Together, two group members demonstrated the skill using their own example of when they might use the skill. After each role-play, the skill was discussed and group members provided their respective feedback. Finally the session ended with the encouragement of practicing the skill. Each group member was reminded of the Social Skills practice sheet (see appendix B) that was to be filled out and brought to the next session.

The Social Skills that were taught during the 10-week program are as follows :

Week 1: Expressing a complaint constructively

Week 2: Caring for someone sad

Week 3: Keeping out of fights

Week 4: Helping others

Week 5: Dealing constructively with someone angry at you

Week 6: Dealing constructively with someone accusing you of something

Week 7: Responding to Failure

Week 8: Dealing Constructively with Negative Peer Pressure

Week 9: Peer Pressure*

Week 10: Peer Pressure*

(See Appendix C for social skills)

* The last two sessions substituted new skills for an extended focus on dealing with peer pressure and applied activities from the cognitive-behavioral manual currently used at the Kelso Centre.

Moral Education/Social Decision Making

This component of equipment meetings aimed to create an opportunity for youth to consider the perspective of others and foster mature decision-making. Youth were given a short paragraph to read describing a situation followed by various questions that required decision making. The youth were expected to read the paragraph and answer the questions independently before the meeting so the group leader could create a chart depicting each group member's decision for each question. The chart was brought to the meeting for discussion. The format of the moral education sessions consisted of the following four phases:

1) Introduce the problem situation

The session began with the group leader asking the group to describe the problem in the situation and if anyone could relate to this type of problem.

2) Cultivate mature morality

Using the chart with each member's response recorded, the group leader asked members who had responded with positive (mature) decisions to discuss the reasons for their decisions. The answers were written on a flip chart for others to consider.

3) Remediate moral developmental delay

Next, the group leader asked members who responded with negative or less mature answers to discuss the reasoning behind their decisions. These answers were also recorded for all group members to see. Group members with mature decisions were asked to respond to these

less positive decisions and members whom responded with less mature answers were asked if they have changed their mind after hearing other (mature) decisions and reasons. This stage was based on a discussion that provided youth with opportunities to consider other perspectives and may help members with immature reasoning to develop mature decision making. Youth were also encouraged to discuss and label problem behaviors and underlying cognitive distortions according to the 12 categories in PPC (Vorrath & Brendtro, 1985) and the four cognitive distortions described in EQUIP (Gibbs et al., 1995).

4) *Consolidating Mature Morality*

The aim of this phase was to achieve consensus for positive decisions and mature reasoning. For each question, the group leader asked if all group members agreed on a particular response (the majority or mature decision). If all members were in agreement, the decision was circled at the bottom of the chart, if no consensus was reached, a majority vote was simply recorded and the next question was examined.

Eleven problem situations were discussed over the first nine equipment meetings (See appendix D). The following is an example of a problem situation that will be used in the moral education equipment meetings:

Alonzo is walking along a side street with his friend Rodney. Rodney stops in front of a beautiful new sports car. Rodney looks inside and then says excitedly, "Look! The keys are still in the thing! Let's see what it can do! Come on, let's go!"

Questions about this situation centered around what Alonzo should say or do with respect to various circumstances.

Thus, the program consisted of three mutual help meetings and two equipment meetings a week for ten weeks. Each meeting lasted approximately 1.5 hours. Skills and activities from each of the three target areas were covered weekly in the following order: anger management,

social skills and moral education (see appendix E for program layout). This not only decreased boredom and hopefully increased interest, but it also likely helped the youth to consider different aspects of particular issues and connect various interrelated themes from each of the target areas, and subsequently heightened learning (Gibbs et al., 1995).

Measures

The following measures were obtained immediately before and after the implementation of the 10-week treatment program.

Inventory of Adolescent Problems – Short Form (IAP-SF, Gibbs et al., 1995) was used to assess the young offenders' social skills. Based on the Adolescent Problem Inventory (Freedman, Rosenthal, Donahue, Schlundt, & McFall, 1978) and the Problem Inventory for Adolescent Girls (Gaffney & McFall, 1981), the IAP- SF is designed to assess adolescents' social skills in dealing with interpersonal problems and stressful situations. The instrument consists of 22 problematic or stressful situations such as dealing with peer pressure or hostility. However, only 20 of the situations were used for the present study as two items are not applicable to young offenders that are between the ages of 12-16. The youth are asked to imagine themselves in each situation and then are asked, "What do you say and do now?" Each of the 20 situations are scored according to a 9-point scale, ranging from 0-8, where 8 represents a high level of social skill with calm and constructive responses. A score of 0 indicates no social skill and reflects responsive behavior where an adolescent will readily engage in deviant or hostile behavior. Applicable to both males and females, the IAP- SF provides four scores: an overall social skills score and three subscores. The overall score consists of a modal score and a mean score. Ranging from 0-8, the modal score is based on the rating most frequently scored, where scores of 6.00 or above represent a non-deficit level of social skill functioning. The mean protocol score represents the overall mean

rating of the 22 items, multiplied by 100, and therefore ranges from 000 to 800, with scores above 600 indicating somewhat to very socially skilled. The IAP- SF also provides a subscore for deviant peer pressure and anger provocation. The later subscore, however, can be further differentiated into immediate response demand and deferred response demand. The IAP- SF appears to be a reliable and valid measure. A study by Leeman, Gibbs and Fuller (1993) used this instrument with young offenders and reported a high level of interrater reliability for 19 protocols, $r(18) = .94$, $p < .0001$. Furthermore, agreement within .5 of the 9-point scale was 89.5%. A study by Simonian et al. (1991) demonstrated the construct validity of the IAP- SF and the three subscales. Delinquent males deficient in social skills were associated with various antisocial behaviors such as AWOL attempts, substance abuse, most serious offense, and number of correctional institutional placements. Leeman et al. (1995) also found that social skills correlated with institutional misconduct, institutional incident reports, frequency of self-reported preincarceration and unexcused school absences.

The How I Think (HIT) Questionnaire (Gibbs, Barriga & Potter, 2001). The HIT is a newly developed instrument designed to measure criminogenic thinking and cognitive distortions in antisocial youth. Youth respond to 54 items using a 6-point Likert scale that ranges from Agree Strongly (6) to Disagree Strongly (1). Responses of 4 (slightly agree) or higher indicate cognitive distortion and responses of 3 (slightly disagree) or lower indicate nondistortion. Thirty-nine of the items state various attitudes or beliefs that represent cognitive distortions such as, "If someone is careless enough to lose a wallet, they deserve to have it stolen". Each of these 39 items correspond to one of the four categories of cognitive distortions described by Gibbs, Potter and Goldstein (1995): Self-Centered, Blaming Others, Minimizing/Mislabeling and Assuming the Worst and to one of four categories of antisocial behavior. The behavioral categories are

derived from the symptoms of Conduct Disorder and Oppositional Defiant Disorder in the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV, American Psychiatric Association, 1994) and include lying, stealing, physical aggression and disrespect for rules, laws and authority (opposition-defiance). For example, the HIT item, "People force me to lie when they ask me too many questions" encompasses the "Blaming others" cognitive distortion and "Lying" from the antisocial behavior categories.

Therefore, together the four cognitive distortions and four behavioral referents define eight HIT subscales. These subscales are balanced in their content and distribution throughout the test such that each cognitive distortion is applied to each of the behavioral categories at least twice and not more than three times.

The remaining 15 items are control items that serve to encourage the full use of the scale. Eight of these control items comprise the Anomalous Responding scale that serves to detect inaccurate or socially desirable responding. The final seven items are positive fillers such as, "I am generous with my friends". These prosocial items are not scored, but are simply dispersed throughout the test to counterbalance the high negative item content of the test.

The HIT yields 3 summary scores based on the eight subscales. The Overt Scale is based on the physical aggression and opposition-defiance subscales and reflects behavior that involves direct confrontation of a victim. The Covert Scale is derived from the stealing and lying subscales and reflects antisocial behaviors that do not involve direct confrontation of a victim. The overall HIT score is based on all eight of the subscales.

The HIT has been psychometrically evaluated and revised based on these evaluations. The current version of the HIT was evaluated on four validation samples and yields favorable psychometric properties. Internal consistency was very high for the overall questionnaire,

Cronbach's coefficient alpha ranged from .92 - .96 and for the Overt and Covert Scales (.83-.94). The HIT was found to have strong construct validity, correlating highly with various self-reported measures of anti-social behavior as well as parent-report and institutional measures of misconduct. The HIT also successfully differentiated between high school students and youth incarcerated, psychiatrically hospitalized or court mandated for psychological evaluations. (Barriga, Gibbs, Potter, & Liao, 2001). High test re-test reliability for the HIT, ($r(135) = .91, < .0001$, at one week interval) has been previously established by Barriga and Gibbs (1996).

The Child Behavior Checklist (CBCL; Achenbach, 1991) was used to assess the behavior of the young offenders. Although, the CBCL is typically completed by a youth's parent, it can be completed by others that are close to or know the child well and thus was completed by the staff at the residential facility for the purposes of the present study. The CBCL is designed to assess the competencies and problems of children from the ages of 4 to 18. Questions assessing youth's competencies refer to the youth's activities (sports), social relationships and academic performance. Problem areas are assessed through 112 items that parents/staff respond to according to a 3 point scale (0= not true, 1= somewhat true, 2= very true). These items are representative of eight problem areas that are defined as the following subscales: withdrawn, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behavior and aggressive behavior. Along with providing scores for the eight problem areas, the CBCL also provides scores for 2 major subscales. The Externalizing Subscale is based on the delinquent and aggressive behavior scores and the Internalizing Subscale score is derived from the withdrawn, somatic complaints, and anxious/depressed scales. The psychometric properties of the CBCL are reported as favorable and are discussed extensively by Achenbach (1991a). For the present study only the scores for the delinquent subscale were collected.

However, difficulties were encountered with obtaining these measures from staff, particularly for the control group where service providers did not feel confident in their knowledge regarding the youth's specific activities in certain areas, and as a result, delinquency scores from the CBCL were obtained only for the youth in the Equip group and were completed by the same staff member.

The Youth Self Report (YSR for ages 11-18; Achenbach, 1991b) is the corresponding self report form of the CBCL that is completed by youth themselves. This form is designed for adolescents aged 11-18 and thus various items concerning problem areas differ from the CBCL. However, consistent with the CBCL, the YSR assesses a youth's competencies and the eight problem areas and provides scores for the Externalizing and Internalizing Scales. Achenbach (1991b) describes favorable reliability (.68-.91) and validity for the YSR. The two subscales of the externalizing domain, aggression and delinquency were used to measure behavioral changes for all three groups.

It was also anticipated that a recidivism measure would be reported 6 months after the completion of the program. However, again, the collection of this information was prevented due to unexpected difficulties, mainly that the youth in custody were each serving sentences of different lengths, with some lasting up to two years.

Results

As a result of unexpected difficulties during data collection, the number of subjects per group was smaller than originally anticipated. Therefore, in order to address the issue of a small sample size, statistical procedures were carefully chosen that would take into account this issue while analysing the results of the study. The statistical programs selected to analyse the data were NPSTAT (May, Hunter, & Gabriel, 1993) and NPFACT (May, Hunter, Masson & Well, 1993), which compute randomization tests. Randomization tests are a special type of permutation test that present a unique opportunity by enabling researchers to make statistical inferences about treatment effects with no accompanying assumptions (Edgington, 1993). Randomization tests are very versatile and are often referred to as “distribution free” tests, as no distributional assumptions (e.g. normality, homogeneity of variance) are required. Essentially the researcher creates his/her own random data distribution against which the real data are compared (Edgington, 1995). Therefore, as randomization tests have no assumptions that must be met, they are appropriate for small sample sizes that frequently violate assumptions required for typical statistical analysis.

Randomization tests simply conduct a permutation test where the null hypothesis states that scores obtained by each subject in the experiment would be the same for any alternative randomizations to other treatment groups. There are 4 steps included in the randomization test. First, a test statistic is computed for the experimental data, such as the t or F statistic. Next, the data are permuted or rearranged in such a manner that hypothetical outcomes are created for the same subjects by using all possible alternatives to the random assignment. Third, a test statistic is computed for each of these resulting permutations or hypothetical outcomes. This creates a reference set that depicts all possible results that would have been obtained for particular random

assignments, given that the null hypothesis was true. The reference set is also considered the significance table used to determine the statistical significance of the experimental results. The last step utilizes the significance table to compute a p-value. The p-value corresponds to the proportion of data permutations in the reference set whose test statistic is greater or equal to the value obtained for the experimental results. Thus, a small proportion is indicative of a small p-value and a higher likelihood of significance.

However, the fact that small sample sizes are associated with less power indicates that there is greater difficulty in obtaining statistical significance, and, a higher probability of committing a type II error, whereby the researcher concludes that the treatment had no effect when in fact it did. For this reason, in addition to using randomization tests to assess for changes in group means, normative comparison tests were also performed as secondary analyses to assess for clinical significance. Normative comparison tests are qualitatively different from traditional statistical tests, where they are more concerned with the practical component of change as opposed to the statistical aspect. Clinical significance refers to the importance of the identified changes, thus normative comparison tests assess whether changes over time are meaningful and whether treated individuals display levels of symptomatology equivalent to levels found in the general population. These analysis were completed with a separate program from the randomization tests.

Before running the statistical analyses, the three treatment groups were first tested for between-group differences on age, and the pre-measures obtained before treatment, including social skills, cognitive distortions and self-reported delinquency. No significant differences were found, indicating that all three groups appeared to be similar before treatment. As well, for the Equip group, which was the only group for which staff reports of behavior were obtained, using

the CBCL, there were no differences between pre-measures of self-reported and staff-reported behavior.

Factorial ANOVA

The present study consisted of a 2 x 3 mixed factorial design with 3 levels of treatment (Equip, alternative and a control group) and 2 levels of time (pre and post). Therefore, in order to test the main hypotheses that the Equip group, compared to the other two groups, would show significantly more gains in social skills and significantly less cognitive distortions, less aggressive behavior and less delinquent behavior after treatment, randomization tests were performed to conduct 6 Factorial ANOVA's, which assessed for interaction and main effects of time and treatment, for the following six dependent measures: HIT, YSR (delinquent and aggressive subscales), and 3 scores from the IAP-SF (mean, modal and peer pressure). Effect sizes were also calculated using a procedure that involves converting familiar test statistics to the correlation coefficient equivalents (Rosnow & Rosenthal, 1988). A summary of the mean values for each of the dependent measures is provided in Table 1.

No significant results were found for the HIT, or for the aggressive or delinquent subscales of the YSR measure, indicating that neither of the two treatment groups or the control group displayed changes in their aggressive or delinquent behavior nor did any group evidence changes in their attitudes regarding criminal behaviors. Thus, the hypotheses regarding improvements in cognitive distortions, aggressive behavior and delinquent behavior were not supported.

However, with respect to social skills, a factorial ANOVA indicated a significant interaction of time x treatment for overall mean social skills scores, $F(2, 18) = 8.17, p = .002, r = .56$, as well as a significant main effect of time, $F(1, 18) = 27.23, p = .0005, r = .77$. Post hoc

analyses were conducted using randomization tests to perform independent t-tests on the difference scores and revealed that both the Equip group and the alternative treatment group showed significantly greater gains in social skills compared to the control group, $t(12) = -3.94$, $p = .003$, $r = .75$, $t(12) = -3.18$, $p = .007$, $r = .67$, respectively. Furthermore, there was no significant difference in the overall improvement of social skills between the two treatment groups, $t(12) = .83$, $p = .83$, $r = .06$. These results indicate that after the 10-week treatment period, the Equip program and the alternative treatment program both evidenced significantly higher levels of improvement in their level of social skills compared to the control group, as illustrated in Figure 1.

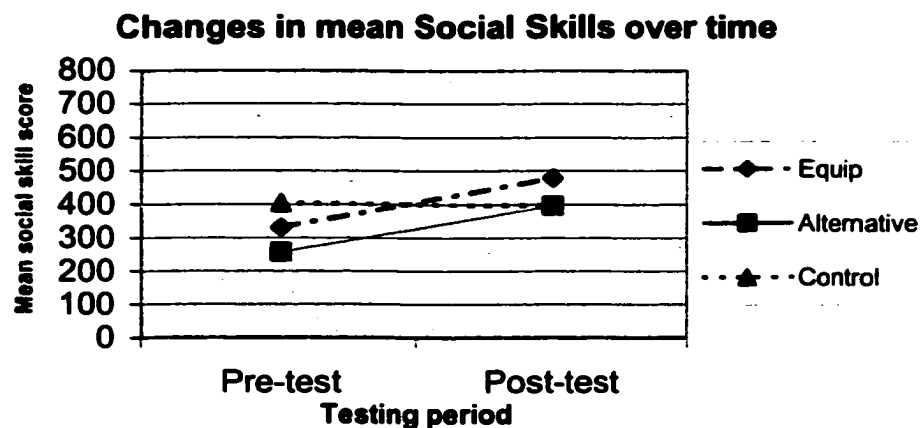


Figure 1. Changes in mean Social Skills scores for treatment groups over time.

In addition to analyzing overall mean social skills scores, modal scores from the IAP-SF measure, which refer to the youth's most frequent/typical score ranging from 0 to 8, were also analyzed. Mean and modal scores represent different meanings, justifying the analysis of both scores. For example, a youth may have a low overall mean social skills score (e.g. 250), but a high modal score (e.g. 6), indicating that their typical response to social situations reflects a high

level of skill, although in certain situations they will exhibit an unskilled response. Likewise, a youth with a high overall mean score (e.g. 620) and a low modal score (e.g. 3) suggests that this youth typically displays unskilled responses to social situations, but has the potential to exhibit highly skilled responses in certain situations.

Table 1. Mean Scores for dependent measures by testing period and group.

Dependent Measure	Equip Treatment		Alternative Treatment		Control Group		Normative Sample Mean	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social Skills (mean)¹							N/A	
Pretest	331	104	257	79	405	127		
Posttest	480	79	396	86	396	95		
Social skills (modal)¹							N/A	
Pretest	3.43	2.9	1.71	2.4	3.14	3.0		
Posttest	5.71	2.4	2.86	2.3	3.86	2.3		
Peer pressure¹							N/A	
Pretest	2.9	2.1	2.3	1.8	4.3	1.8		
Posttest	5.5	1.7	3.6	1.6	4.6	1.1		
HIT²							2.39	.69
Pretest	2.5	.55	2.9	.53	2.5	.90		
Posttest	2.6	.80	2.4	.88	2.3	.80		
Overt²							2.44	.71
Pretest	2.7	.63	3.2	.75	3.0	.86		
Posttest	2.7	.88	2.6	.91	2.9	.60		
Covert²							2.34	.74
Pretest	2.4	.68	2.8	.51	2.9	1.06		
Posttest	2.7	.82	2.3	.91	2.6	1.17		
Aggression (YSR)²							54	5.9
Pretest	56.6	7.2	58.6	13.1	65.9	7.9		
Posttest	59.7	9.1	60.3	6.5	59.6	6.9		
Delinquency (YSR)²							54	6.0
Pretest	65.7	8.5	71.8	6.2	63.8	11.0		
Posttest	66.4	9.1	70.7	6.8	59.8	6.5		

¹ = higher scores reflect improvements

² = lower scores reflect improvements

Results of the factorial ANOVA for the modal scores revealed a non-significant time x treatment interaction, $F(1, 18) = .91$, $p = .42$, $\eta^2 = .22$ and a significant main effect for time, $F(1, 18) = 7.86$, $p = .01$, $\eta^2 = .55$. More specifically, the Equip group and the alternative treatment group demonstrated more gains in their usual responses to social situations compared to the control group. Furthermore, it should be noted that the Equip group was the only group that showed a post-test mean score (5.71) close to the non-deficit level (6.00) for social skills functioning (see

Table 1.).

As a result of the strong emphasis on peer pressure found throughout both treatment programs, the Peer Pressure subscale of the IAP-SF was also analyzed through a factorial ANOVA. Results indicated that the interaction between time and treatment was marginally significant, $F(2, 18) = 3.18$, $p = .06$, $r = .39$ and there was a significant main effect of time, $F(1, 18) = 16.03$, $p = .0008$, $r = .82$. Although the interaction was not considered statistically significant, it approached significance and the effect size was moderate. Therefore, post hoc analyses were conducted and revealed that although there were no significant differences between the gains in the Equip group and the alternative treatment group, $t(12) = -.69$, $p = .51$, $r = .19$, the Equip group did demonstrate significantly more improvement in handling peer pressure compared to the control group, $t(12) = -2.84$, $p = .01$, $r = .63$ (See Figure 2).

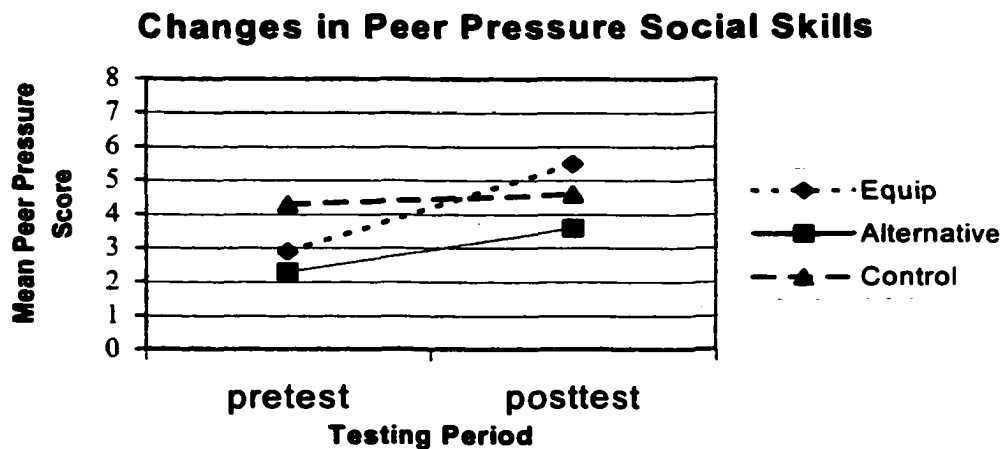


Figure 2. Mean Peer Pressure Social Skills scores for treatment groups over time.

In summary, with respect to the hypothesis that the Equip group would evidence significantly more gains in social skills compared to the other two groups, results provided

partial support. Overall, the Equip group showed significantly more improvement in their use of social skills compared to the control group, although these gains did not differ from those of the alternative group. However, and more specifically, the Equip group showed a tendency towards demonstrating higher levels of improvement in their social skills with respect to dealing with peer pressure, compared to the control group.

Normative Comparisons

As previously mentioned, normative comparison tests were conducted as a secondary analysis to the traditional statistical analyses that determine whether group means have changed over time as a result of a treatment effect. Normative comparison tests address the question of whether treatment returned once-extreme cases to within normal ranges on various dependent measures (Kendall, Marrs-Garcia, Nath, & Sheldrick, 1999). In essence, normative comparison tests assess the meaning of group changes.

Normative comparison tests were completed with the delinquent and aggressive subscales of the YSR and the total, covert and overt subscales of the HIT measure. These normative comparison tests were based on a statistical procedure described by Kendall et al., 1999, that consists of comparing the data from treated individuals to that of the “normative sample”. A normative sample refers to a large group of individuals in the general population that serve as a comparison group to the target population. For the present study, the normative sample for the HIT measure included 412 male and female high school students ranging from 14-19 years of age. The normative sample for the CBCL included 637 boys aged 11-18 years. Mean scores for the normative sample on these measures are found in Table 1. Due to the unavailability of normative data for the IAP-SF, normative comparisons could not be performed with the results of the IAP-SF measure.

The procedure for normative comparison testing involves 2 tests, a clinical equivalency test and a traditional statistical test. The clinical equivalency test determines whether treated data are equivalent to data from the normative sample, based on the process of defining a range, typically one standard deviation below and above the normative mean, and testing whether treated group means fall within this range. The traditional test simply determines whether the treated group mean is statistically different from the normative mean. Normative comparison tests were performed separately for pre-test and post-test scores.

Delinquent behavior: The results of the normative comparisons for the Youth Self Report measure indicated that all three groups failed to demonstrate clinical significance. Using pre-test scores, the three group means were significantly above the normative mean before treatment, and post-test analyses revealed that after treatment, all three groups remained significantly above the normative sample, thus, indicating that no treatment group was successful in reducing delinquency levels to within the average range.

Aggressive behavior: Similar to the results for delinquent behavior, the normative comparison tests failed to illustrate clinical significance regarding changes in aggressive behavior for all three groups. Analysis indicated that all three group means were significantly different and not clinically equivalent to the normative mean before treatment and remained in this same classification after treatment. Thus, all three groups maintained high levels of aggressive behavior and failed to demonstrate clinically significant changes over the course of treatment.

Cognitive distortions: Normative comparison tests for the total HIT scores produced different findings for each group. Analyses for the Equip group pre-test mean score revealed significance for the equivalency test, $t(417) = 2.15$ $p = .01$, $r = .10$ and non-significance for

traditional t-test, $t(417) = .49$, $p = .31$, $r = .02$, indicating that initially, before the implementation of the Equip program, this group of young offenders was already clinically equivalent, and not statistically different from the normative sample regarding their level of cognitive distortions. Post-test analysis also revealed significance for the equivalency test, $t(417) = 1.63$, $p = .05$, $r = .08$ and non-significance for the traditional t-test, $t(417) = .98$, $p = .16$, $r = .05$, indicating that after treatment, the Equip group remained clinically equivalent to the normative sample. As the Equip group began treatment with initially low HIT scores, reflecting attitudes toward criminal behavior within normative ranges, a floor effect may have occurred, where it is difficult to assess the impact of treatment on this measure, as the low scores do not allow for much further improvement.

The total pre-test mean HIT score for the alternative treatment group was statistically different, $t(417) = 2.29$, $p = .011$, $r = .11$, but not clinically equivalent to the normative sample, $t(417) = .34$, $p = .36$, $r = .02$, and after treatment, post-test analysis revealed that the group mean score reached clinical significance, $t(417) = 2.42$, $p = .008$, $r = .12$ and was not statistically different from the normative sample, $t(417) = .18$, $p = .42$, $r = .01$. Therefore, although a factorial ANOVA indicated no statistically significant changes in cognitive distortions compared to the other group means, results from the normative comparisons revealed that the changes for this group over the course of treatment were clinically significant. Thus, the alternative treatment group was initially described as having highly distorted thinking patterns and after a 10-week period of treatment, they were characterized as having normal thinking patterns, similar to those of the normal population with respect to criminal attitudes as illustrated in Figure 3. As for the control group, results indicated that this group was also initially clinically equivalent to the normative sample, $t(417) = 2.04$, $p = .02$, $r = .099$ and not statistically different, $t(417) = .58$, $p =$

.28, $r = .03$ and remained in this same classification after the 10-week treatment period, post-test group means for equivalency test, $t(417) = 2.92$, $p = .002$, $r = .14$ and traditional t-test, $t(417) = -$

3.03, $p = .38$, $r = .01$. Thus, as with the Equip group, clinical significance could not be assessed for the control group, as this group was within the normative range regarding criminal attitudes before the commencement of the treatment period.

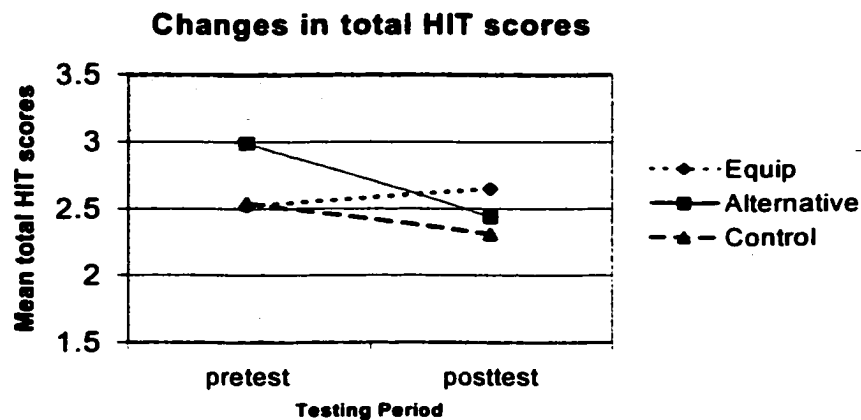


Figure 3. Changes in mean total HIT scores for treatment groups over time.

Normative comparisons were also performed for the overt and covert subscales of the HIT measure and revealed similar results as the total HIT scores, as illustrated in Figures 4 and 5.

Overt Scores: Analyses for the overt subscale for the Equip group revealed similar results to the normative comparisons tests with the total HIT scores, where initially, the group mean was not statistically different, $t(417) = .92$, $p = .18$, $r = .04$, and was clinically equivalent to the normative sample, $t(417) = 1.70$, $p = .04$, $r = .08$, and after treatment, the equip group post-test mean remained within this normative range, $t(417) = 1.66$, $p = .04$, $r = .08$, and classified as not statistically different from the normative sample, $t(417) = .96$, $p = .17$, $r = .05$. Thus, as with the

total HIT scores, a floor effect may serve to explain these results, where the Equip group began treatment with initially low covert scores and maintained these low scores after treatment.

Results for the overt scale with the alternative treatment were also similar to the results found with the total HIT measure, where this group was initially statistically different from the normative sample, $t(417)= 2.81, p=.003, r = .14$, and not clinically equivalent, $t(417)= -.18, p=.42, r = .01$, and after treatment, the post-test overt mean score was returned to the normative range, $t(417)= 2.02, p=.02, r = .09$, and was not statistically different from the normative sample, $t(417)= .59, p=.27, r = .03$. Thus again, these results provide support for tests of clinical significance, where a typical statistical analysis may reveal non-significance in terms of mean differences, but a closer look at the data with normative comparisons, as in this case, reveals that the treatment returned the alternative treatment group mean to a level where scores reflect normal thinking patterns related to overt criminal behaviors.

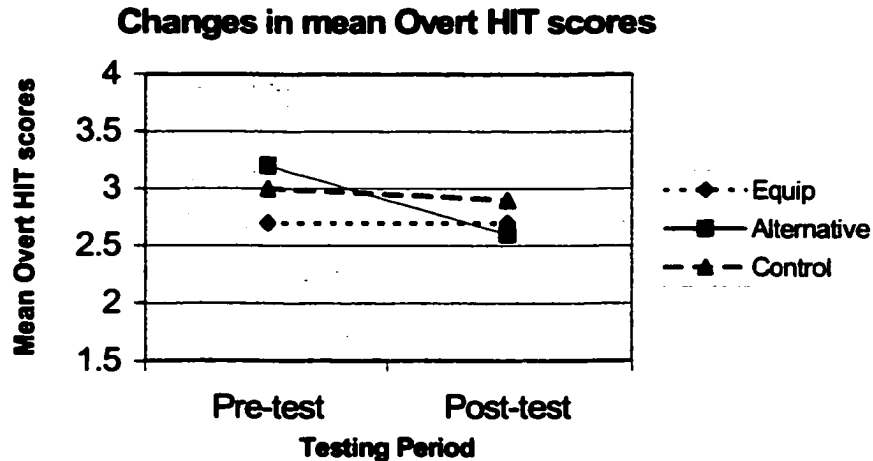


Figure 4. Changes in mean Overt HIT scores for treatment groups over time

Results for the overt subscale with the control group were also similar to the results with the total HIT scores, where this group was considered statistically different from the normative sample, $t(417)= 2.13, p=.01, r = .10$, and not clinically equivalent, $t(417)= .48, p=.31, r = .02$, and

remained this way after the treatment period. Thus, the control group had a mean score (3.02) which was higher than the normative sample (2.44) and did not change over the 10-week treatment period and remained significantly higher (2.93) than the normative sample.

Covert scores: Again, the overall results of the normative comparisons for the covert scale were more supportive for the alternative treatment group than for the Equip group. The Equip group began treatment with a pre-test covert mean score that fell within the normative range, $t(417) = 2.52$, $p = .006$, $r = .12$, and was not statistically different from the normative sample, $t(417) = .10$, $p = .46$, $r = .01$. However, after treatment, the post-test covert mean score was no longer within the normative range, $t(417) = 1.41$, $p = .07$, $r = .06$, nor was it statistically different from the normative sample, $t(417) = 1.2$, $p = .11$, $r = .06$, indicating non-significance for both tests. Thus, the results from the post-test analysis indicated that there was not sufficient evidence to conclude that a difference exists between the treatment group and the normative group, nor is there enough evidence to suggest that this difference falls within the clinical range, where the two groups would be considered equivalent. Thus, due to a lack of power from a small sample, the Equip group could not be classified on this measure.

The alternative treatment group was found to have a pre-test group covert mean score that was statistically different from the normative sample, $t(417) = 1.6$, $p = .05$, $r = .08$, but not clinically equivalent, $t(417) = 1.03$, $p = .15$, $r = .05$, and after treatment, the post-test mean covert score had reached the normative range, $t(417) = 2.86$, $p = .002$, $r = .14$, and was not statistically different from the normative sample, $t(417) = -.25$, $p = .40$, $r = .01$. Thus, the results support clinical significance, where the alternative treatment returned the distorted thinking patterns of this group, related to covert criminal behavior, to within the normal range. Interestingly, analyses with the control group also supported clinical significance for covert HIT scores. Results

revealed that the pre-test mean score was statistically different, $t(417) = 2.25$, $p = .01$, $r = .11$, and not clinically equivalent from the normative sample $t(417) = .35$, $p = .36$, $r = .01$, but after treatment, the post-test mean covert score reached clinical equivalency $t(417) = 1.72$, $p = .04$, $r = .08$, and was no longer statistically different from the normative sample, $t(417) = .87$, $p = .19$, $r = .04$, indicating that the distorted thinking patterns related to covert behavior for this group were returned to normative levels.

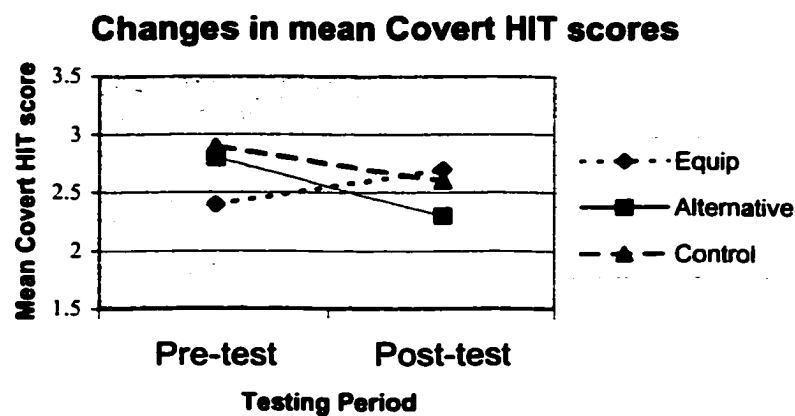


Figure 5. Changes in mean Covert HIT scores for treatment groups over time.

Overall, the results of the normative comparisons with the HIT measure suggest that the alternative treatment was more effective than both the Equip treatment group and the control group with respect to changing the cognitive distortions of young offenders, such that over the course of treatment, the thinking patterns of the alternative treatment group related to both covert and overt criminal behaviors became similar to those from the normal population.

Correlations

Given that the dependent measures were administered on two occasions (pre-test and post-test), difference scores were calculated and enabled correlational analyses with the change

scores to assess whether changes in one area were associated with changes in other areas. Correlations of the overall difference scores for the main measures of the study are presented in Table 2. Reductions in cognitive distortions were associated with gains in mean social skill scores, and gains in mean social skills correlated with gains in other measures of the social skill questionnaire, modal score and peer pressure scores, as well as with decreases in delinquency, as measured by the YSR.

Table 2. Correlations of difference scores for dependent measures

Dependent Measures	1	2	3	4	5	6
1. HIT	1.00					
2. Social skills (mean)	.52*	1.00				
3. Social skills (modal)	.21	.67**	1.00			
4. Peer pressure	.32	.70**	.62**	1.00		
5. Aggression (YSR)	.17	.13	-.12	.01	1.00	
6. Delinquency (YSR)	.24	.51*	.37	.41	.35	1.00

* $p < .05$

** $p < .001$

Correlational analyses were also performed separately for the three treatment groups, using the difference scores on the dependent measures; however, this also resulted in very small sample sizes. As illustrated in Table 3, for the Equip group, gains in mean social skills were highly correlated with gains in modal social skills, and with gains in peer pressure scores. Gains in the peer pressure subscale of the social skills measure also correlated with improvements in self-reported delinquent behavior, suggesting that the skills taught in the Equip group regarding how to handle peer pressure may have helped prevent various delinquent activities.

With the alternative treatment group, changes in overall cognitive distortions related to criminal thinking were associated with both gains in overall mean social skills, and decreases in aggressive behavior. Thus, as youth transformed their distorted thinking patterns to more normalized attitudes regarding criminal behavior, their social functioning and aggressive

behavior improved. Moreover, there was also a significant relationship between changes in mean social skills levels and changes in aggressive behavior, such that as youth in this group began to develop more appropriate levels of social skills their levels of aggression decreased (See Table 4).

Table 3. Dependent measure correlations for Equip Group

Dependent Measures	1	2	3	4	5	6
1. HIT	1.00					
2. Social skills (mean)	.29	1.00				
3. Social skills (modal)	.18	.84*	1.00			
4. Peer pressure	.20	.94**	.90**	1.00		
5. Aggression (YSR)	-.12	-.04	-.06	.17	1.00	
6. Delinquency (YSR)	.10	.75	.63	.84**	.11	1.00

* $p < .05$

** $p < .001$

Table 4. Dependent measure correlations for Alternative Treatment Group

Dependent Measures	1	2	3	4	5	6
1. HIT	1.00					
2. Social skills (mean)	.78*	1.00				
3. Social skills (modal)	.09	.43	1.00			
4. Peer pressure	.33	.42	-.02	1.00		
5. Aggression (YSR)	.94**	.79*	.09	.29	1.00	
6. Delinquency (YSR)	.47	.54	.17	.14	.69	1.00

* $p < .05$

** $p < .001$

With respect to the control group, similar results were found as with the Equip group, where gains in the mean, modal and peer pressure scores of the social skills measure were highly correlated among each other. However, decreases in self-reported delinquent behavior also correlated highly with gains in all three measures of the social skills, particularly the peer pressure subscale. Changes in cognitive distortions did not correlate with changes in any other behavior for the control group. This may be related to the fact that the other two treatment groups were strongly based on a cognitive framework and emphasized correcting distorted

thinking patterns, whereas the control group was not as highly focused on this topic and intervention was minimal.

Table 5. Dependent measure correlations for Control Group

Dependent Measures	1	2	3	4	5	6
1. HIT	1.00					
2. Social skills (mean)	.37	1.00				
3. Social skills (modal)	.26	.80*	1.00			
4. Peer pressure	.68	.82*	.75*	1.00		
5. Aggression (YSR)	.27	.24	-.12	.12	1.00	
6. Delinquency (YSR)	.68	.82*	.75*	1.00**	.11	1.00

* $p < .05$

** $p < .001$

Discussion

The evaluation of the Equip program, a multi-component group treatment that was implemented with a group of young offenders, was assessed in the present study by comparing it to an alternative cognitive behavioral treatment program and a control group, while testing hypotheses regarding (1) improvements in social skills, (2) decreases in cognitive distortions related to criminal behavior, (3) decreases in delinquent behavior and (4) decreases in aggressive behavior. Results found support only for the first hypothesis regarding improvements in social skills and not for the other three hypotheses.

Social Skills: The Equip group and the alternative treatment group both displayed significantly more gains in overall mean social skills compared to the control group. Consistent with other research using social skills training (Goldstein, 1993; Hollin, 1990b; Leeman, Gibbs, Fuller, 1993), these results support the view that social skills training is effective in teaching youth social skills. Furthermore, the Equip group was the only group whose mean modal score (5.71) was close to the non-deficit level of social functioning (6.0) after treatment, indicating that youth from the Equip program were the only youth in this study who respond to social situations by typically using appropriate levels of social skills. This finding is consistent with results obtained by Leeman, Gibbs and Fuller (1993) in their preliminary evaluation of the Equip program, where youth in the Equip group were also the only youth who exhibited a modal score (5.67) close to the non-deficit level of social functioning. Therefore, the social skills component of the Equip program, which provided step by step instruction in how to handle various social situations appears to have been an important component of the program.

Although the alternative treatment group exhibited equal improvements in social skills as did the Equip group, their mean modal score as measured after the treatment period, was still

representative of unskilled responses, indicating that the youth in the alternative program still required further improvement in their social skills before they could be described as having average ability in dealing with social problems. This also suggests that the social skills component of the Equip program may be more effective than the social skills training in the alternative treatment, as the Equip program improved social skills to within normal levels.

The effectiveness of the social skills component in the Equip program is further supported by the results from the peer pressure scores. The Equip program not only showed significantly more gains in social skills related to dealing with peer pressure compared to the control group, but the Equip group, once again, was the only group who demonstrated post-test levels of peer pressure social skills (5.5) close to the non-deficit level of functioning. Thus, after treatment, the youth in the Equip group appeared to be more equipped than the other two groups to deal with peer pressure.

Cognitive distortions: In terms of the hypothesis regarding improvement in the youth's cognitive distortions, although statistical analyses failed to identify significant changes over time for any of the three groups, normative comparison tests revealed clinical significance for the alternative treatment program with all three scales of the HIT measure (total score, overt and covert scores). In other words, before treatment, youth in the alternative treatment group had levels of cognitive distortions that were significantly greater than the normal population, and after treatment, their level of cognitive distortions regarding criminal behaviors was no longer distinguishable from the non-offending population. Thus, the alternative cognitive-behavioral program was successful in changing the youths' attitudes, such that after treatment they no longer endorsed attitudes indicative of approving criminal behaviors.

Both the Equip group and the control group displayed levels of cognitive distortions equivalent to the non-offending population before treatment for the total HIT score and the overt subscale score, and both groups remained within this normative range after treatment. The fact that both of these groups already endorsed a normal level of attitudes with respect to criminal behavior before they began treatment, makes it hard to assess the effectiveness of the Equip program on changing cognitive distortions, as there was no need to change the attitudes of the youth in these groups. However, the level of cognitive distortions for both the Equip group and the control group were maintained at this normal range over the course of treatment.

Therefore, although the alternative treatment group appears to have been effective in changing the distorted criminal thinking patterns of young offenders, it is difficult to assess whether this treatment was more effective than the other two groups given the low initial scores for the Equip group and the control group. This conclusion would require a sample of offenders with high initial levels of cognitive distortions.

The alternative treatment group also demonstrated a relationship between changes in cognitive distortions and gains in social skills, indicating that as these youth began to endorse more acceptable attitudes regarding criminal behavior, their level of social skills improved over time. Thus, as Guerra and Slaby (1988) demonstrated, targeting one's thoughts and attitudes appears to be an important factor in changing behavior. That this relationship was only found for the alternative group is likely explained by the fact that both the Equip group and the control group did not display changes in their cognitive distortions over time as they already exhibited acceptable levels of cognitive distortions before treatment, therefore, the lack of changes in cognitive distortions over time reduced the variability in this measure and thus, prevented

significant correlations with the other measures (social skills, delinquency). However, it is possible that this relationship would emerge for all groups with more variability among scores.

Aggressive behavior: Although there were no statistical differences in the overall changes in aggressive behavior, there were some interesting relationships revealed from the correlational analyses. The alternative treatment group demonstrated a relationship between changes in cognitive distortions, mean level of social skills and aggressive behavior, such that as levels of distorted thinking decreased, social skills levels increased and aggressive behavior also decreased. The significant intercorrelations among these three variables suggests that they are all interrelated and supports the notion that cognitions are related to behavior. Therefore, in order to change behavior, cognitions must first be targeted, which is essentially the foundation of cognitive behavioral programs, as with the programs in this study. Thus, these results support the use of the alternative cognitive behavioral program used in this study.

Delinquent behavior: The present study failed to find significant decreases in delinquent behavior for all three groups. This is inconsistent with the findings from the evaluation of the preliminary version of the Equip program (Leeman, Gibbs, Fuller, 1993), where youth in the Equip group displayed significantly more decreases in self-reported misconduct, staff-filed incident reports and unexcused absences from school compared to two control groups. Reasons for this discrepancy may include the small sample size used in the present study, particularly for the Equip group (n=7) compared to the larger sample used by Leeman et al. with twenty subjects in the Equip group. As well, in the present study a different and broader measure of behavioral change was used rather than the two more specific measures of delinquent behavior used by Leeman et al. to assess behavioral changes. Furthermore, the present study re-administered the questionnaires after the 10-week treatment period, whereas Leeman et al. re-

administered their questionnaires during the sixth month of incarceration for those who had a one-year sentence. Thus, a longer time period was involved for assessing behavioral changes. Perhaps a longer time period for the assessment of behavioral changes with the present study would have demonstrated more significant findings.

Another factor that may explain the lack of behavioral changes in the present study relates to the youths' release dates. In the study by Leeman et al., most of the youth were released after treatment, and therefore perhaps their behavioral changes were related to their approaching release date, where the offenders were on their "best behavior". In contrast, only one of the seven youth from the Equip program in the present study was released immediately after treatment, while the other youth were still completing sentences for up to two years and thus, may not have had as much incentive to change.

Despite the lack of changes in delinquent behavior for the present study, the significant correlation between decreases in delinquent behavior and gains in social skills suggests that social skills may be an important factor in targeting delinquent behavior. As youth acquire more conventional ways of handling a situation, they no longer need to rely on their accustomed anti-social tendencies. Similarly, with the Equip program, the significant relationship that was revealed between gains in handling peer pressure and decreases in delinquent behavior indicates that as youth acquired the skills involved in resisting peer pressure, they were more likely to abstain from delinquent behaviors. Interestingly, this relationship was also found among the control group. Although reasons for this latter finding are unclear, it is possible that since the youth in the control group were not in custody, but were in the community, they were provided with more opportunities to interact with non-delinquent youth and thus, in turn were more likely to model pro-social behavior. Whereas the youth in custody were only exposed to other

delinquent youth, it was likely more difficult for these youth to abstain from anti-social behaviors, and to engage in pro-social behavior. Following this assumption, it would be expected that the most significant changes among a group of young offenders would occur if treatment programs included a group of delinquent and non-delinquent youth, where non-delinquent youth could model pro-social thinking and behaviors. To date, this type of research has not been implemented and given the ethical issues that arise from this proposition, it is unlikely that this will occur in the near future. However, research needs to consider that youth learn by modeling and therefore, anti-social youth need pro-social models.

Methodological Limitations

As with any applied behavioral research, there are various obstacles that interfere with a study's design. The present research is no exception. The primary limitation of this study is the extremely small sample size. Given that subjects were required to have a custodial sentence of at least 10 weeks over a similar time period, it was difficult to obtain a group of offenders in one custody facility that met this criteria, and as a result the Equip program was not implemented with a second group of offenders. The small sample clearly has implications regarding a loss of power and difficulty obtaining significant results as the sample is likely too small to be representative of the overall young offender population. Furthermore, as a result of the small sample, random assignment was impossible and thus, the sample was based on convenience. This also has implications regarding the internal validity of the study. The sample was also problematic, in that it included offenders who were admitted and released from custody at different time periods. Thus, offenders who were previously in custody before the commencement of the Equip program were exposed to other treatment programs, which confounds the effects of the Equip program. Other limitations include the lack of a no-treatment

control group. However, this is difficult to overcome with applied research, as it is unethical to withhold treatment.

There were also limitations with the assessment measures. The Youth Self Report, which assessed self-reported changes in delinquent behavior, may have been too broad of a measure. A more specific measure that assessed behavioral changes pertinent to institutional misconduct may have been more appropriate and effective in assessing behavioral changes, as used by Leeman et al. in their preliminary evaluation of the Equip program. Another limitation to this study is in regard to the time period. A 10-week period is likely too short for treatment to have an impact, as well as being too short to detect changes, particularly behavioral changes, and thus future studies should consider longer periods of treatment

Lastly, is the fact that a recidivism measure was not obtained. Again, this was related to the different release dates for the subjects. The offenders in custody were all serving sentences of different lengths, with some as long as a year or two. This undoubtedly made it difficult to obtain measures of recidivism for each youth, although this measure would have been ideal to assess the long-term effects of the treatment programs.

Summary and Clinical Implications

In summary, the results of this study provide support for the use of cognitive-behavioral treatment programs with young offenders that aim to target distorted thinking patterns, that in turn, lead to changes in overt behavior such as social skills, aggression and delinquency. This study essentially evaluated two different treatment programs, a regular cognitive-behavioral program and the Equip program, which combines the underpinnings of a cognitive behavioral approach with a peer focused approach. Both programs appeared to have contributed to

improving certain aspects of the young offenders' functioning, and thus both programs are considered to have demonstrated therapeutic change.

In particular, the social skills component of the Equip program proved to be of significant value. The youth in this group not only demonstrated substantial improvements in their level of social skills, but these improvements were so great that after the implementation of the 10-week Equip program, the youth were considered to have normal levels of social skills, such that they approached stressful social situations in an appropriate and acceptable manner. Furthermore, the youth in the Equip group also demonstrated improvements in their ability to handle peer pressure, which related to decreases in their delinquent behavior. As for the alternative treatment program, this approach proved to be successful in changing the youth's cognitive distortions, such that after treatment their attitudes regarding criminal behavior were similar to those of the non-offending population. Furthermore, the changes in these attitudes were related to improvement in behavior, specifically social skills and aggression, supporting the importance of the cognitive component to this treatment.

The results of this study have implications for professionals working with young offenders as well as for researchers developing programs to implement with this population. Consistent with recent research, this study supports the use of a cognitive behavioral approach to working with young offenders. A focus on teaching and correcting cognitive distortions appears to be an essential part of treatment. More specifically, programs should include a social skills component such as the one described in the Equip program that teaches step by step skills that are needed when faced with typical adolescent social problems. As well, anger management is likely a beneficial piece of treatment. As with the social skills component, anger management provides youth with alternative ways to behave, such that once they have learned to acknowledge

their distorted thinking, they can rely on pro-social behaviors to express themselves. Although the present study does not provide conclusive support for all of these recommended components, this is likely due to the small sample and thus future research should attempt to evaluate these components with a larger sample.

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Appendix A

Self-Help Daily Log: Problems and Thinking Errors

Name _____ Date _____
 Morning _____ Afternoon _____ Evening _____

Where were you?

Group meeting _____ Class _____ Cafeteria _____
 Lounge _____ Gym _____ Other _____

What kind of problem(s) did you have?

Low Self-Image	Misleads Others
Inconsiderate of Self	Easily Misled
Inconsiderate of Others	Alcohol or Drug Problem
Authority Problem	Stealing
Easily Angered	Lying
Aggravates Others	Fronting

You had this/these problem(s) because of what kind of thinking error?

Self-Centered _____ Blaming others (or blaming bad mood) _____
 Assuming the Worst _____ Minimizing/Mislabeling _____

Describe the problem(s) _____

What were you thinking (describe the thinking error)? _____

How angry were you?

1 – Burning mad	2 -Really angry	3 – Moderately angry	4 – Mildly angry	5 – Not angry at all
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How did you handle yourself?

1 – Poorly	2 – Not so well	3 – Okay	4 – Well	5 – Great
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I won't have this/these problem(s) in the future if I _____

Appendix B
Social Skills Practice Sheet

Name: _____

Date: _____

Fill in during this meeting:

1. Practice assignment

a) Skill

If applicable:

b) Use with whom

c) Use when

d) Use where

Fill in before next meeting:

2. Describe what happened when you did the practice assignment. For example, did you skip any steps? What was the other person's reaction?

3. Rate yourself on how well you used the skill (check one):

Excellent _____ Good _____ Fair _____ Poor _____

Appendix C

Social Skills

Skill 1 - Expressing a complaint constructively

Step 1: *Identify the problem.*

How are you feeling? What is the problem? Who is responsible for it? Did you contribute- or are you contributing to the problem in any way?

Step 2: *Plan and think ahead.*

To whom should you express your complaint? When? Where? What will you say?

Step 3: *State your complaint*

In a calm, straightforward way, tell the person the problem and how you feel about it. If you've contributed to the problem, mention how you may be partially at fault and what you are willing to do.

Step 4: *Make a constructive suggestion.*

Tell the person what you would like done about the problem. Ask the other person if he or she thinks your suggestion is fair. If the other person makes a constructive suggestion, say that you appreciate the suggestion or that it sounds fair.

Skill 2- Caring for someone Who is Sad or Upset

Step 1: *Watch the person (but don't stare).*

Does he or she look or sound sad? Upset? How strong might the feeling be?

Step 2: *Plan and think ahead.*

Ask yourself: Should I walk over to the person? Now? Or Later?

Step 3: *Start a conversation.*

Walk over to the person. Say something like "What's up?" "How are you feeling?" "Want to talk about it?"

Step 4: *Listen and "be there"*

Listen to what the person says. Encourage him or her to talk. Say something like "So, you're kinda bummed out". After the person seems done for the time being, say something like "I'll be around if you want to talk some more about it" or "Let me know if there's anything I can do".

Skill 3 – Keeping out of Fights

Step 1: *Stop and think about why you want to fight.*

You can breathe deeply, count backwards or engage in positive self-talk to calm yourself down. Also consider if you did anything to contribute to the problem.

Step 2: *Think ahead.*

Ask yourself, "If I fight, then what will be the consequences?" Think about consequences for other people too.

Step 3: *Think of a way to handle the situation besides fighting and do it.*

Should you walk away now? Give a displeased look? Talk to the person in a calm, straightforward way? Ask someone for help in solving the problem?

Skill 4- Helping Others**Step 1: *Think, "Is there a need?"***

Decide if the other person might need or want your help. Think about the needs of the other person, what is the person doing or saying.

Step 2: *Think of the ways you could be helpful.*

Does the person need something done? Need someone to listen to? Need words of encouragement? What would be best?

Step 3: *Plan and think ahead.*

Ask yourself, "Is this a good time for me to offer help? Or should you wait until a later time?"

Step 4: *Offer to help.*

Ask the other person, "Need some help?" or "Want some help?" or go ahead and offer the help in some way. If the other person says yes, follow through with the help.

Skill 5- Dealing constructively with someone angry at you**Step 1: *Listen openly and patiently to what the other person is saying.***

Nod your head or say "mm-hmm." If you need to, ask the angry person to tell you specifically what things you said or did that made him/her upset.

Step 2: *Tell the person you understand why he/she is upset or that he/she has a right to be angry.* Think of something you can agree with- say that the person is right about that.

Step 3: *Apologize or explain.*

Make a constructive suggestion to correct the problem.

Skill 6- Dealing constructively with someone accusing you of something.**Step 1: *Think, "How do I feel?"***

If you are upset, stop and say to yourself, "I have to calm down."

Step 2: *Think, "What is the other person accusing me of? Is he/she right?"*

It is important to be honest with yourself about the situation.

Step 3: *If accuser is right: In a calm, straightforward way, say you're sorry.*
Offer to make up for what happened or say you won't do it again.

If accuser is wrong: In a calm, straightforward way, tell the accuser that he or she said is not true or that you didn't do it.

You may mention that you're sorry the person got the wrong impression, that this is a lot of false talk, or that you would like an apology.

Skill 7 - Responding constructively to failure

Step 1: *Ask yourself, "Did I fail?"*

Decide if you have failed. Consider the difference between failing and not doing quite as well as you hoped.

Step 2: *Ask yourself, "Why did I fail?"*

Think about both the thinking errors and the circumstances that contributed to your failure.

Step 3: *Think about what you could do differently next time.*

Consider practicing more, asking for help or changing your attitude or thinking.

Step 4: *Decide if you want to try again and get another chance and do better.*

Step 5: *If appropriate, make a plan to try again.*

Remember how you can do things differently.

Skill 8- Dealing constructively with negative Peer Pressure.

Step 1: *Think, "Why?"*

Think about what the other person or people are saying. What is it they want you to do? Why do they want you to do it?

Step 2: *Think ahead.*

Think about the consequences if you do what they want you to do. Who might get hurt? How might you feel if you go along? How should you feel if you go along?

Step 3: *Decide what you should do.*

What reasons will you give the person or people? What will you suggest to do instead?

Step 4: *Tell.*

In a calm manner, tell one of the people what you have decided. Give a good reason-for example, how the pressure makes you feel or who might get hurt if you do what they want.

Step 5: *Suggest something else to do.*

This could be something less harmful but still enjoyable, or something responsible.

Appendix D

Moral Education Problem Situations

The Martian's Adviser's Problem Situation

A man from Mars has decided to move to another planet. He has narrowed his search down to two planets, Planet A and Planet B. Planet A is a violent and dangerous place to live. People just care about themselves and don't care when they hurt others. Planet B is a safer, more peaceful place. People on Planet B do care about others. They still have fun, but they feel bad if they hurt someone. Planet B people try to make the planet a better place.

You're the Martian's advisor. Which planet should you advise him to move to?
Planet A / Planet B / can't decide (circle one)

Jerry's Problem Situation

Jerry had just moved to a new school and was feeling pretty lonely until one day a guy named Bob came up and introduced himself. "Hi, Jerry. My name is Bob. I heard one of the teachers say you're new here. If you're not doing anything after school today, how about coming over to shoot some baskets?" Pretty soon Jerry and Bob were good friends.

One day when Jerry was shooting baskets by himself, the basketball coach saw him and invited him to try out for the team. Jerry made the team, and every day after school he would practice with the rest of the team. After practice, Jerry and his teammates would always go out together to get something to eat and sit around and talk about stuff. On weekends they would sometimes take trips together.

As Jerry spends more time with the team, he sees less and less of Bob, his old friend. One day, Jerry gets a call from Bob. "Say, I was wondering," says Bob, "If you're not too busy on Thursday, my family is having a little birthday party for me. Maybe you could come over for dinner that night." Jerry tells Bob he'll try to come to the party. But during practice on Thursday, everyone tells Jerry about the great place they're all going to after practice.

What should Jerry say or do?

1. Should Jerry go with the team?
go with team / go to Bob's party / can't decide (circle one)
2. What if Jerry calls Bob from school and says he's sorry, but something has come up and he can't come over after all? Then would it be all right for Jerry to go with the team?
go with team / go to Bob's party / can't decide (circle one)
3. What if Jerry considers that his teammates may be upset if Jerry doesn't come- that they may start to think Jerry's not such a good friend. Then would it be all right for Jerry to go with the team?

go with team / go to Bob's party / can't decide (circle one)

4. What if Jerry thinks that, after all, Bob came along and helped Jerry when Jerry was lonely. Then should Jerry go with the team?
go with team / go to Bob's party / can't decide (circle one)
5. Let's change the situation a bit. Let's say that before Bob asks Jerry to come over, the teammates ask if Jerry will be coming along on Thursday. Jerry says he thinks so. Then Bob asks Jerry. Then what should Jerry do?
go with team / go to Bob's party / can't decide (circle one)
6. Which is more important: to have one close friend or to have a group of regular friends?
one close friend / group of regular friends / can't decide (circle one)
7. Let's change the situation a different way. What if Jerry and Bob are not good friends but instead are just good acquaintances. Then should Jerry go with the team?
go with team / go to Bob's party / can't decide (circle one)

Marks's Problem Situation

Mark has been going steady with a girl named Maria for about 2 months. It used to be a lot of fun to be with her, but lately it's been sort of a drag. There are some other girls Mark would like to go out with now. Mark sees Maria coming down the school hallway.

What should Mark do?

1. Should Mark avoid the subject with Maria so Maria's feelings aren't hurt?
Should avoid subject / should bring it up / can't decide (circle one)
2. Should Mark make up an excuse, like being too busy to see Maria as a way of breaking up?
Excuse / no excuse / can't decide (circle one)
3. Should Mark simply start going out with other girls so that Maria will get the message?
yes / no / can't decide (circle one)
4. How should Mark respond to Maria's feelings? _____

5. Let's change the situation a bit. What if Mark and Maria have been living together for several years and have two small children. Then should Mark break up with Maria?
should break up / no, shouldn't break up / can't decide (circle one)
6. Let's go back to the original situation. This is what happens: Mark does break up with Maria- he lets her know how he feels and starts dating another girl. Maria feels hurt and jealous and thinks about getting even somehow. Should Maria get even?

yes, should get even / no, shouldn't get even / can't decide (circle one)

Jim's Problem Situation

Jim and Derek are high school friends. Jim, whose birthday is coming up, has mentioned to Derek how great it would be to have a car stereo to listen to music while he goes about his job driving a van. Derek steals a car stereo from a car in the school parking lot and gives it to Jim for his birthday. Jim is appreciative, not realizing the present is stolen.

The next day Jim sees Scott, another friend. Jim knows Scott has a car stereo and is good at electronics. Jim mentions that he got a car stereo for a birthday present and asks Scott to come over and help install it. "Sure" Scott says with a sigh.

"You look down, Scott. What's wrong?" Jim asks.

"Oh, I was ripped off," Scott says.

"Oh, man. What did they get?" Jim asks.

"My car stereo," Scott says. Scott starts describing the stolen car stereo.

Later, Jim starts thinking about how odd it is that Scott's car stereo was stolen at just the time Derek gave him one. Jim gets suspicious and calls Derek. Sure enough, Derek confesses that he stole it, and the car he stole it from turns out to be Scott's car!

It's time for Scott to arrive to help Jim install the car stereo. Scott will probably recognize the stereo as his. Scott is at the door, ringing the doorbell.

What should Jim-the one who got the stolen birthday present from Derek- say or do?

1. Should Jim tell Scott that Derek took Scott's tape deck?
should tell / shouldn't tell / can't decide (circle one)
2. How good a friend is Derek? Would Jim be able to trust Derek not to steal from him?
yes, could trust / no couldn't trust / can't decide (circle one)
3. Derek stole the car stereo for a good cause (Jim's birthday). Does that make it all right for Derek to steal the stereo?
yes, all right / no, not all right / can't decide (circle one)
4. What if Derek didn't steal the stereo from Scott's car. What if instead Derek stole the stereo from a stranger's car. Then would it be all right for Derek to steal the stereo for Jim's birthday?
yes, all right / no, not all right / can't decide (circle one)

Alonzo's Problem Situation

Alonzo is walking along a side street with his friend Rodney. Rodney stops in front of a beautiful new sports car. Rodney looks inside and then says excitedly, "Look! The keys are still in the thing! Let's see what it can do! Come on, let's go!"

What should Alonzo do or say?

1. Should Alonzo try to persuade Rodney not to steal the car?
should persuade / should let steal / can't decide (circle one)
2. What if Rodney says to Alonzo that the keys were left in the car, that anyone that careless deserves to get ripped off. Then should Alonzo try to persuade Rodney not to steal the car?
should persuade / should let steal / can't decide (circle one)
3. What if Rodney says to Alonzo that the car's owner can probably get insurance money to cover most of the loss. Then should Alonzo try to persuade Rodney not to steal?
should persuade / should let steal / can't decide (circle one)
4. What if Rodney tells Alonzo that stealing a car is no big deal, that plenty of friends do it all the time. Then what should Alonzo do?
should persuade / should let steal / can't decide (circle one)
5. What if Alonzo knows Rodney has a wife and child who will suffer if Rodney gets caught, loses his job and goes to jail. Then should Alonzo try to persuade Rodney not to steal the car?
should persuade / should let steal / can't decide (circle one)
6. Let's say the car is your car. Alonzo is Rodney's friend, but Alonzo is also your friend. Alonzo knows it's your car. Then should Alonzo try to persuade Rodney not to steal the car?
should persuade / should let steal / can't decide (circle one)
7. In general, how important is it for people not to take things that belong to others?
very important / important / not important (circle one)
8. Let's say Alonzo does try to persuade Rodney not to take the car, but Rodney goes ahead and takes it anyway. Alonzo knows Rodney is in bad shape – from being high. He could have a serious accident and someone could get killed. Then what should Alonzo do?
contact the police / not contact police / can't decide (circle one)

Sara's Problem Situation

Sara works as a clerk in a small grocery store. The store isn't too busy. Orlando, a friend of Sara's at school, comes over to her cash register and says, "Hey, I've only got a dollar with me. Ring up these cigarettes and six-pack for a dollar, will you? The manager's in the back of the store-he'll never know." Sara likes Orlando, and Orlando has done some favors for her. But Sara also feels trusted by the manager.

What should Sara say or do?

1. Should Sara refuse Orlando or should Sara say yes to Orlando's suggestion?
should refuse / should say yes / can't decide (circle one)
2. Was it right for Orlando to put Sara on the spot with his request?
Yes, right / no, not right / can't decide (circle one)

3. What if Sara feels that other employees at the store do this for their friends. Then what should Sara do?
should refuse / should say yes / can't decide (circle one)
4. What if Sara feels that the store is making a profit and wouldn't miss a little money? Then what should Sara do?
should refuse / should say yes / can't decide (circle one)
5. What if you are the owner of the grocery store where Sara is working? Then what should Sara do?
should refuse/ should say yes/ can't decide (circle one)
6. What if the storeowner has been sending Sara home early, when business is slow, and Sara's paycheck has been cut in half? Then what should Sarah do?
should refuse / should say yes / can't decide (circle one)
7. How important is it to be honest at a store where you work?
very important / important / not important (circle one)
8. Let's say Sara says no. Orlando then just walks out of the store with the cigarettes and six-pack. Should Sara tell the manager?
yes, tell manager / no, keep quiet / can't decide (circle one)

George's Problem Situation

One day George's older brother, Jake, tells him a secret: Jake is selling drugs. George and Jake both know that the kind of drug Jake is selling is highly addictive and causes lung and brain damage. It can even kill people. George asks his brother to stop selling. But the family is poor, and Jake says he is only doing it to help out with the family's money problem. Jake asks his younger brother not to tell anyone.

What should George say or do?

1. Should George promise to keep quiet and not tell on his brother?
should keep quiet / should tell / can't decide (circle one)
2. What if Jake tells George that selling drugs is no big deal, that plenty of Jake's friends do it all the time? Then what should George do?
should keep quiet / should tell / can't decide (circle one)
3. What if George finds out Jake is selling the drugs to 10-year olds outside a school? Then what should George do?
should keep quiet / should tell / can't decide (circle one)

4. What if Jake himself won't be harmed by the drug- he tells George he knows how addictive and harmful the stuff is and never touches it? Then what should George do?
should keep quiet / should tell / can't decide (circle one)
5. What if George finds out that Jake isn't using any of the money at all to "help out the family" but instead is spending it on booze and other things for himself? Then what should George do?
should keep quiet / should tell / can't decide (circle one)
6. Is it ever right to tell on someone?
Sometimes right / never right / can't decide (circle one)
7. Who's to blame in this situation?
George (younger brother) / Jake (drug dealer) / other / can't decide (circle one)
8. How important is it for judges to send drug dealers to jail?
Very important / important / not important (circle one)

Leon's Problem Situation

Just after Leon arrived at an institution for boys, he tried to escape. As a result, he was given extra time. It took Leon nearly 4 months to earn the trust of the staff again. He now thinks it is stupid to try and go AWOL. However, Sam, a friend of Leon's, tells Leon he is planning to escape that night. "I've got it all figured out," Sam says. "I'll hit the youth leader on the head with a pipe and take the keys." Sam asks Leon to come along. Leon tries to talk Sam out of it, but Sam won't listen.

What should Leon say or do?

1. Should Leon tell the staff about Sam's plan to go AWOL?
tell / keep quiet / can't decide (circle one)
2. What if Sam is a pretty violent guy and Leon thinks that Sam might seriously injure, maybe even kill, the youth leader? Then what should Leon do?
tell / keep quiet / can't decide (circle one)
3. What if the youth leader is mean and everyone hates him? Then what should Leon do?
tell / keep quiet / can't decide (circle one)
4. Is it any of Leon's business what Sam does?
can be Leon's business / is none of Leon's business / can't decide (circle one)
5. Is it ever right to nark on somebody?
yes, sometimes right / no, never right / can't decide (circle one)

6. Let's change the situation a bit. Let's say the youth leader is Leon's uncle. Then what should Leon do?
tell / keep quiet / can't decide (circle one)
7. Let's say Sam is Leon's brother. Then what should Leon do?
tell / keep quiet / can't decide (circle one)
8. Which is most important?
not telling on your friend / not letting other people get hurt / minding your own business

Dave's Problem Situation

Dave's friend Matt does some dealing on the street. Once in a while, Matt even gives Dave some smoke for free. Now Matt says to Dave, "Listen, man, I've got to deliver some stuff on the south side, but I can't do it by myself. How 'bout it- will you take the stuff down there for me in your car? I'll give you some new stuff to try plus \$50 for just a half-hour drive. Will you help me out?"

What should Dave say or do?

1. Should Dave agree to deliver the stuff for Matt?
yes, should deliver / no, shouldn't deliver / can't decide (circle one)
2. What if Dave knows the stuff Matt wants him to deliver is laced with poison? Should he agree to deliver it?
yes, should deliver / no, shouldn't deliver / can't decide (circle one)
3. What if Dave knows that his sister, who lives on the south side, might take some of the laced stuff. Then should Dave agree to deliver it?
yes, should deliver / no, shouldn't deliver / can't decide (circle one)
4. Should Dave be taking free stuff from Matt?
Yes, should take it / no, shouldn't take it / can't decide (circle one)
5. What if Matt says that doing drugs is no big deal, that plenty of his friends use drugs all the time. Then should Dave be taking the free drugs?
Yes / no / can't decide (circle one)
6. Let's say that Dave does make the drug delivery. Since Dave is just helping Matt, he doesn't feel he's doing anything wrong. Should Dave feel he's doing something wrong?
Yes, wrong / no, not wrong / can't decide (circle one)
7. How important is it to stay away from drugs?
Very important / important / not important (circle one)

Sam's Problem Situation

Sam and his friend John are shopping in a music store. Sam has driven them to the store. John picks up a CD he really likes and slips it into his backpack. With a little sign for Sam to follow, John walks out of the store. But Sam doesn't see John. Moments later, the security officer and the storeowner come up to Sam. The storeowner says to the officer, "That's one of the boys who were stealing CD's!" The security officer checks Sam's backpack but doesn't find a CD. "Okay, you're off the hook, but what's the name of the guy who was with you?" the officer asks Sam. "I'm almost broke because of shoplifting," the owner says. "I can't let him get away with it."

What should Sam say or do?

1. Should Sam keep quiet and refuse to tell the security officer John's name?
tell / keep quiet / can't decide (circle one)
2. From the storeowner's point of view, what should Sam do?
tell / keep quiet / can't decide (circle one)
3. What if the store owner is a nice guy who sometimes lets kids buy tapes or CD's even if they don't have quite enough money? Then what should Sam do?
tell / keep quiet / can't decide (circle one)
4. What if the storeowner is Sam's father? Then what should Sam do?
tell / keep quiet / can't decide (circle one)
5. Who's to blame in this situation?
Sam / John / the storeowner / other / can't decide (circle one)
6. How important is it not to shoplift?
Very important / important / not important (circle one)
7. How important is it for store owners to prosecute shoplifters?
Very important / important / not important (circle one)

Josh's Problem Situation

Josh and Phil are roommates at a juvenile institution. They get along well and have become good friends. Phil has confided that he has been getting pretty depressed lately and has managed to get hold of some razor blades. Josh sees where Phil hides the blades. The youth leader, having learned of the razor blades, searches their room, but does not find them. So the youth leader asks Josh where the razor blades are hidden.

What should Josh say or do?

1. Should Josh cover for Phil, saying he doesn't know anything about any razor blades?
cover for Phil / tell the leader / can't decide (circle one)

2. What if Phil has told Josh that he plans to cut his wrists with the razor blades that night? Then what should Josh do?
cover for Phil / tell the leader / can't decide (circle one)
3. Would Phil feel that Josh cared about him if Josh told?
Yes, would feel Josh cared / no, would not feel Josh cared / can't decide (circle one)
4. What if Josh and Phil actually don't get along well and are not friends? What if Phil has been a real pest? Then what should Josh do?
cover for Phil / tell the leader / can't decide (circle one)
5. What if Josh isn't Phil's roommate but does know about the razor blades and where they are. The youth leader suspects Josh knows something and asks him about the razor blades. Then what should Josh do?
cover for Phil / tell the leader / can't decide (circle one)
6. How important is it for a juvenile institution to have rules against contraband?
very important / important / not important (circle one)
7. How important is it to live even when you don't want to?
very important / important / not important (circle one)
8. Who might be affected (in addition to Phil) if Phil were to commit suicide?

Tony's Problem Situation

Tony is in school taking a math test. Suddenly, the teacher says, "I'm going to leave the room for a few minutes. You are on your honor not to cheat". After the teacher has gone, Ed, Tony's friend, whispers to him, "let me see your answers Tony".

What should Tony say or do?

1. Should Tony let Ed copy his answers?
yes, let cheat / no, don't let cheat / can't decide (circle one)
2. What if Ed whispers that cheating is no bid deal, that he knows plenty of guys who cheat all the time? Then should Tony let Ed cheat?
yes, let cheat / no, don't let cheat / can't decide (circle one)
3. What if Tony knows that Ed is flunking because he doesn't study? Then should Tony let Ed cheat?

yes, let cheat / no, don't let cheat / can't decide (circle one)

4. What if you were the teacher? Would you want Tony to let Ed cheat?

yes, let cheat / no, don't let cheat / can't decide (circle one)

5. Is it possible to have a really close, trusting friendship with someone who has a cheating or lying problem?

Yes, possible / no, not possible / can't decide (circle one)

6. Let's change the situation a little. What if Tony hardly knows Ed? Then should Tony let Ed cheat?

yes, let cheat / no, don't let cheat / can't decide (circle one)

7. In general, how important is it not to cheat?

Very important / important / not important (circle one)

8. Is it right for teachers to punish cheaters?

Yes, right / no, not right / can't decide (circle one)

Appendix E

Format of Equip Treatment Program

Week	Anger Management	Social Skills	Moral Education
1	Evaluating Anger/Aggression	Expressing a Complaint	Martian's Advisor
2	Anatomy of Anger	Caring for Someone Sad	Jerry's Problem Mark's Problem
3	Monitoring/Correcting Thinking errors	Keeping out of Fights	Jim's Problem Alonzo's Problem
4	Anger Reducers	Helping Others	Sara's Problem
5	Thinking ahead to consequences (TOP) think of other person	Dealing with someone angry at you	George's Problem
6	Using "I" statements instead of "you" statements	Dealing with someone accusing you of something	Leon's Problem
7	Self-evaluation talking back to thinking errors	Responding to Failure	Dave's Problem
8	Reversing, consider things you do to make other angry	Dealing with Peer Pressure	Josh's Problem
9	Self as victimizer consequences for victims	Peer Pressure*	Tony's Problem
10	Victimizer and grand review the mind of a victimizer	Peer Pressure*	

* These sessions implemented activities from the cognitive-behavioral manual used at the J.J. Kelso Centre.

Appendix F

Inventory of Adolescent Problems- Short Form (IAP-SF)**Situation 1**

You're visiting your aunt in another part of town, and you don't know any of the guys your age there. You're walking along her street, and some guy is walking towards you. He's about your size. As he is about to pass you, he bumps into you and you nearly lose your balance. What do you say and do now?

* The female version substitutes a *girl* for *guy*.

Situation 2

You've been going steady with a girl named Mary for about 3 months. It used to be a lot of fun to be with her, but it isn't anymore. There are some 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 and do now?

* The female version refers to a *guy named Matt* instead of a *girl named Mary*.

Situation 3

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 march yourself right up those stairs and put something decent on, or you're not going anywhere this morning!" What do you say and do now?

Situation 4

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 by myself. How 'bout it- will you take the stuff down there for me in your car? I'll give you some new stuff to try plus \$50 for just a half-hour drive. Will you help me out?" What do you say and do now?

Situation 5

One of your friends really likes a girl named Debbie and dates her a little. 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 parking lot 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 and do now?

* The female version refers to a *guy named Dan* instead of *Debbie*.

Situation 6

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 and do now?

Situation 7

Your father has been concerned for months about you getting home by midnight. Sometimes that's a problem because none of your friends have to be home before 1:00 am. One night you walk in at 1:30 am., and your father is sitting in the living room, looking mad. He says, "Where in the world have you been? Do you have any idea what time it is?" What do you say and do now?

Situation 8

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 the thing! Let's see what it can do. Come on, let's go!" What do you say and do now?

Situation 9

You're about an hour late getting to your part-time job in a supermarket because your car ran out of gas. You feel 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 the at the time clock, and the boss comes storming over to you and says, "You're fired! I've put up with you kids being late and not coming in on time too many times. Starting with you, anyone who comes in late gets canned!" What do you say and do now?

Situation 10

You have a friend 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 person in the neighborhood. He comes to your house one night to tell you that he and another person are going to rob a place. He says, "You want to come along? We think you could be a big help to us." What do you say and do now?

Situation 11

You ask the girl who sits next to you in 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 anyone who has been in trouble." What do you say and do now?

Situation 12

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 and do now?

Situation 13

The girl you've been going out with just broke up with you. She said that you're okay but that 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. What do you say and do now?

Situation 14

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've only got a dollar with me. Ring up these cigarettes and six-pack for a dollar, will you? The manager's in the back of the store-he'll never know." What do you say and do now?

Situation 15

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

* The female version reads: you're playing volleyball in gym class, and some girl you don't know....

Situation 16

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 seems interested in you until he found out you were on parole. Now he says, "Our usual policy is not to hire anyone who's on parole. Nothing personal, but we've had too many problems with you kids in the past. Sorry." What do you say and do now?

Situation 17

You were suspended from school for a 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. Just now, one of the teachers has surprised you in a rarely used classroom, where you were catching a smoke, 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 from your suspension? What do you say and do now?"

Situation 18

Your parents don't seem to like your friends. They say that 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 to your place. After he's gone, your mother gets on his case, calling him a good-for-nothing and demanding that you do not see him again. You know that Joe has become more responsible lately. What do you say and do now?

Situation 19

You're driving around with a good friend on a hot, muggy summer night. Your friend says, "I'm thirsty! I could really use a cold beer. I know a place that doesn't check ID's. How about going over and getting some booze?" What do you say and do now?

Situation 20

It's early afternoon, and ever since you woke up this morning, you've been in a bad mood. What do you say and do now?

Appendix G

The "HOW I THINK" Questionnaire

- | | | | | | | |
|---|-------------------|-------|-------------------|----------------------|----------|----------------------|
| 1. People should try to work on their problems. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 2. I can't help losing my temper a lot. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 3. Sometimes you have to lie to get what you want. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 4. Sometimes I get bored. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 5. People need to be roughed up once in awhile. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 6. If I made a mistake, it's because I got mixed up with the wrong crowd. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 7. If I see something I like. I take it. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 8. You can't trust people because they will always lie to you. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 9. I am generous with my friends. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |
| 10. When I get mad, I don't care who gets hurt. | agree
strongly | agree | agree
slightly | disagree
slightly | disagree | disagree
strongly |

11. If someone leaves a car unlocked, they are asking to have it stolen.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
12. You have to get even with people who don't show you respect.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
13. Sometimes I gossip about other people.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
14. It's no big deal to lie, everybody does it.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
15. It's no use trying to stay out of fights.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
16. Everyone has the right to be happy.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
7. If you know you can get away with it, only a fool wouldn't steal.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
18. No matter how hard I try, I can't help getting in trouble.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
19. Only a coward would ever walk away from a fight.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
20. I have sometimes said something bad about a friend.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
21. It's O.K. to tell a lie if someone is dumb enough to fall for it.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly

22. If I really want something, it doesn't matter how I get it.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
23. If you don't push people around, you will always get picked on.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
24. Friends should be honest with each other.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
25. If a store or homeowner gets robbed, it's really their fault for not having better security.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
26. People force me to lie if they ask too many questions.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
27. I have tried to get even with someone.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
28. You should get what you need even if it means someone has to get hurt.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
29. People are always trying to hassle me.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
30. Stores make enough money that it's O.K. to just take things you need.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
31. In the past, I have lied to get myself out of trouble.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
32. You should hurt people first, before they hurt you.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly

33. A lie doesn't really matter if you don't know that person.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
34. It's important to think of other people's feelings.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
35. You might as well steal. If *you* don't take it, somebody *else* will.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
36. People are always trying to start fights with me.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
37. Rules are mostly meant for *other* people.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
38. I have covered up things that I have done.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
39. If someone is careless enough to lose a wallet, they deserve to have it stolen.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
40. Everybody breaks the law, it's no big deal.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
41. When friends need you, you should be there for them.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
42. Getting what you need is the only important thing.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
43. You might as well steal, people would steal from you if they had the chance.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly

44. If people don't cooperate with me, it's not my fault if someone gets hurt.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
45. I have done bad things that I haven't told people about.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
46. I lose my temper because people try to make me mad.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
47. Taking a car doesn't really hurt anyone if nothing really happens to the car and the owner gets it back.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
48. Everybody needs help once in a while.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
49. I might as well lie- when I tell the truth, people don't believe me anyway.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
50. Sometimes you have to hurt someone if you have a problem with them.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
51. I have taken things without asking.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
52. If you lie to someone, that's nobody else's business.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
53. Everybody steals, you might as well get your share.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly
54. If I really want to do something, I don't care if it's legal or not.
 agree strongly agree agree slightly disagree slightly disagree disagree strongly