THE EFFECTS OF A GROUP SOCIAL SKILLS TRAINING PROGRAM
ON INTERPERSONAL COMMUNICATIONS
IN PARENT-ADOLESCENT DYADS

by
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ABSTRACT

The Effects of a Social Skills Training Program on Interpersonal Communications in Parent Adolescent Dyads

by

Patrick Sean Noble, Master of Science
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The purpose of this thesis was two fold. First, there was an experiment in which the independent variable was the behavioral skill levels of parents and their adolescents on a social skills training program and the dependent variable was the parent and adolescent perceptions of their interpersonal relationship regarding communication and problem solving. Second, there was an experiment comparing instructional styles wherein the independent variable was the length of time used to present the social skills training program and the dependent variable was the resulting scores on the behavioral measures of the program. A modified pretest - posttest control group design was used wherein the control group for the first experiment became a portion of the experimental group for the second experiment. There were 43 parent adolescent dyads who volunteered to participate. Of those, 25 of the dyads met the minimum criteria for being included in
the analysis. There were 18 dyads analyzed from the experimental group and seven from the control group. Results of the first experiment, regarding the effects of a social skills program on perceived interpersonal relationships, demonstrated that while the parents did perceive an improvement, the adolescents did not. Results of the second experiment demonstrated that the long term program of one skill every week for eight weeks was more effective than the concentrated one week program of two skills per night for four nights.
DEVELOPMENT OF THE PROBLEM

Introduction

Parent-adolescent interpersonal communication is a complex issue. The success and/or failure of the parent-adolescent relationship depends on the ability and willingness of both parties to communicate personal needs, emotions and information. Successful interpersonal interaction requires communication and social skills of both the parent and the adolescent. Therefore, the logical resolution to parent-adolescent dyads who are having difficulty in their interpersonal relationships is enhanced skill development. Indeed, several skill development programs have been created for this purpose. For example, Hazel, Schumaker, Sherman and Sheldon-Wildgen (1981a) have developed a role-playing social skills program called ASSET: A Social Skills Program for Adolescents. This program, which employs video taped instructions and role playing, focuses on seven social skills and one problem solving skill. While some evidence suggests that skills training can enhance social skill development, there are limitations to generalizing to adolescents in general. To date empirical studies which have used the ASSET program have been limited to dealing with delinquent adolescents (Serna, Schumaker, Hazel & Sheldon-Wildgen, in press; Manos, 1985; Hazel, Schumaker, Sherman & Sheldon-Wildgen, 1981b; 1982), learning disabled adolescents (Schumaker, Hazel, Sherman & Sheldon-Wildgen, 1982) and lonely adolescents (Adams, Mills & Noble, 1985). The subject of communication
between "normal" adolescents and their parents has not been addressed by users of the ASSET program (or for that matter, with any widely recognized social skills program).

Problem Statement

There is a void in the empirical assessment of the ASSET program and its documented utility in improving parent-adolescent communication. Does participation in a social skills program actually enhance positive parent-adolescent communication levels?

Specifically this study will explore the following questions:

1. Does participation in the ASSET social skills program for adolescents, as taught by trained graduate students to both parents and adolescents, improve observed social skills behaviors as reflected by the ASSET measurement instruments?

2. Assuming that the ASSET program does have an effect on social skills, is that effect generalized, as reflected by the communication subscale of the Parent-Adolescent Relationship Inventory (PARI), to corresponding increase in positive, and a reduction of negative, communication skills by the parent and/or the adolescent?

3. Assuming that the ASSET program does have an effect on social skills, is that effect generalized, as reflected by the problem solving subscale of PARI, to a mutual resolution of specific self reported problems or disputes between the parent and adolescent?

4. Is a short term, one week long, concentrated presentation of the ASSET program as effective in improving the participants' scores on
observed ASSET skills as a presentation that addresses one skill per week over an eight week period?

Operational Definitions

Adolescent - An individual, male or female, who is between the ages of 13 and 17 years and attending either a junior or senior high school.

Parent - A biological or legal parent or guardian of the adolescent. The parent may be a father or a mother but must have lived with the adolescent for five years. That time period was arbitrarily chosen to insure that the parent-adolescent relationship was developed adequately enough to reduce the potential for a relationship which had only been short term being different from other subjects who had lifelong relationships.

PARI - Parent Adolescent Relationship Inventory. A multidimensional self-report inventory of parent-adolescent relations with 431 true/false items for the adolescents and 427 true/false items for the parent. It samples 13 major domains (Robin, Koepke, Moye & Nayor, 1984).

ASSET - A video tape/role play social skills training program for adolescents (Hazel et al., 1981a).

Objectives

The objectives of this study tend to be hierarchically dependent. That is, the second objective is dependent upon the first and the third objective is dependent upon the second, and so forth. Specifically,
the objectives are:

1. To determine if a video/role play social skills program can improve behavioral performance on the social skills being taught.

2. To determine whether improved social skills behaviors result in lower levels of negative communications and/or higher levels of positive communications within the parent-adolescent dyads.

3. To determine whether improved social skills-behaviors and communication result in mutual resolution of specific problems between the adolescent and his/her parent.

4. To determine if a social skills program can be as effective in improving behavioral performance on the social skills being taught when the program is presented in a concentrated one week time span as opposed to teaching one skill per week over an eight week time span.
PRIOR RESEARCH

Introduction

Research on social skills is presented under many varying and nebulous terms. Indeed, it is difficult to ascertain from the literature specific definitions for key elements of this review. It is necessary, therefore, to delimit the definitions prior to exploring the existing literature.

Limitations

Social skills include a complexity of both verbal and non-verbal elements of an individual’s ability to transmit, receive, comprehend and process interpersonal messages. This rather lofty, all encompassing definition is difficult to measure. It has, within it, elements as basic as eye contact, body posture, and facial expressions and yet may encompass an array of more complex behaviors. All the elements of social skills are associated with eliciting a desired response from others.

The ultimate determination of whether one is judged to be socially competent or skilled is whether others judge their interactions to be appropriate and successful. In order empirically to measure that success, an assortment of social skills programs have been developed which address specific social behaviors and outcomes. These efforts range from programs focused on specific social settings, as specific as job interviews (Heimberg, Cunningham, Stanley & Blackenberg, 1982), enhancing assertiveness (DeLange, Lanham & Barton, 1981; Lee, Hallberg...
& Hassard, 1979; Ollendick & Hersen, 1979; Pentz & Kazdin, 1982) and problem solving (Thompson & Hudson, 1982), to programs which attempt to offer a flexible array of skills that can be adapted to a variety of encounters.

These megaconstruct programs, offer approaches which cover a diverse spectrum of skills. Examples of these programs include Hazel et al.'s, ASSET program, Hendrix and Heckel's (1982) behavioral approach on modifying social behavior program, Sarason and Sarason's (1981) cognitive and social skills program, and Hollin and Henderson's (1981) social skills training program. These megaconstruct programs appear to offer the broad focus required for improving parent-adolescent interpersonal communications. Each of these programs define social skills elements that generalize beyond specific social settings and include skills that can generalize across social settings and group composition. Hence, our definition of social skills will encompass empirically testable behaviors of the adolescent which enhance the ability to employ a repertoire of appropriate skills in interacting with others, specifically with their parents.

Looking at other definitional issues, the term adolescent needs to be further addressed. This life stage, originally defined by G. Stanley Hall (1904) as a period of "storm and stress," has since been approached from a variety of theoretical frameworks (Adams & Gullotta, 1983). There are those who would argue that adolescence is best defined by biological development. Adolescence would, therefore, be
determined by an individual's level of physical development. That would suggest pubertal development is the key to establishing who is, and who is not, an adolescent (Tanner, 1972). Others would argue that adolescence is best defined by psychological development. For example, Erik Erikson (1968), and subsequently James Marcia (1980), define adolescence by virtue of a sequence of identity formation stages wherein psychological levels of an achieved identity are delineated. For the purposes of this paper, however, since it is dealing with social interactions, the theoretical framework that best deals with the issue of adolescence is social psychological in focus. The sociological viewpoint recognizes an individual as an adolescent by virtue of his or her social interactions and social institutional definition. Blyth, Simmons and Bush (1978) suggest that the school system, by its very design, constitutes a "social coming of age" into adolescence based on grade and age more than any biological or psychological variable. Adolescents, for the purposes of this review, will be those individuals who have attained the level of seventh grade at school but have not yet graduated from the twelfth grade. Since an individual could possibly have dropped out of school and subsequently returned to complete school, the definition will be further limited to individuals who are between the ages of 13 and 17 years inclusive.

The definition of parent is a little more straightforward. There are, however, several variables which could have an affect on the nature of the parent-adolescent relationship. A parent may be a biological parent, an adopted parent, a foster parent or a legal
guardian. The amount of time that the parent-adolescent dyad have known one another can vary from the adolescent's full life to essentially no time at all. Another variable that will affect the relationship is whether the parent is a father or a mother and whether there are one or two parents in the home. For the purposes of this review, "parent" will include all of the parental options above, limited only by the parent and adolescent having lived together for at least five years.

Finally, *interpersonal communication*, or more specifically the quality of interpersonal communication, encompasses a broad range of symbolic transactional processes which include verbal behaviors or words and non-verbal behaviors including facial expressions, eye contact, gestures, movement, posture, appearance, and spatial distance. Also Robin et al. (1984) have pointed out that interpersonal communication can result in both positive and negative exchanges. Positive behaviors include good eye contact and active listening whereas negative behaviors include accusations, sarcastic remarks and lectures. Interpersonal parent-adolescent communications, therefore, incorporate all of these elements. Robin et al. (1984), in developing the Parent Adolescent Relationship Inventory, focused on the "level of positive and negative communication skills, perceived understanding, and exchange of affect in the parent-adolescent relationship....the extent to which parents and teenagers share happiness, sadness, anger or other feelings" (p. 1). It is these elements which will be employed
in defining and measuring interpersonal communications.

In summary, then, the definitions that will be used in operationalizing this study include (a) social skills, which are defined as a repertoire of behaviors that enhance an adolescent’s ability to interact with their parents; (b) adolescents, which will include 13 to 17 year olds who have attained at least the seventh grade in secondary school but have not yet graduated from high school; (c) parents, which may include biological, adopted, foster or legal guardians, requiring only that they have lived with the adolescent for a minimum of five years and are legally responsible for the adolescent, and, finally, (d) interpersonal communications which are defined as including the level of positive and negative communication skills, perceived understanding and exchange of affect between the parent and adolescent.

Review of Related Literature

Adolescence is a life stage during which the adolescent’s primary emotional attachments to his/her family are transforming from a dependent child-parent relationship to a symmetrical quid pro quo affiliation with parents. Indeed, data are emerging to document this transformation. For example, in a study which limited itself to measuring the parent adolescent relationships with male adolescents, Steinberg (1977; 1981) explored the decision making interactions of 27 middle class adolescents and their parents, over a one year period. Steinberg found that the family system appeared to enter a temporary
stage of disequilibrium near the apex of the boy's growth spurt. This
period was characterized by a breakdown in communication between the
male adolescent and his mother and high levels of tension in family
discussions. Therefore, the emotional processes in the family appear
to undergo disequilibrium during adolescence. This might be associated
with communication and conflict problems until the transformation
process is complete.

Steinberg puts forth the suggestion that the breakdown in parent-
adolescent communications has its base in a biological characteristic
-- the apex of the boy's growth spurt. A rival hypothesis for
initiation of this breakdown might be the adolescent's tendency to
increase affiliation with peers while decreasing affiliation with
parents. Therein, the adolescent may recognize the contrast between
the symmetrical relationship with peers and the complimentary one-up,
one-down parent-child relationship. This awareness can result in an
increased assertiveness towards parents in a bid for a more balanced
relationship (e.g., see Berndt, 1979; Britain, 1963; Bronfenbrenner,
1970; Grotevant, 1983). This metamorphosis of the parent-adolescent
relationship is hampered by the adolescent's inability to communicate
appropriately. The adolescent's only experiences with a symmetrical
quid pro quo relationship are those which he/she acquires with peers.
A problem presents itself as a result of the adolescent's symmetrical
relationship experiences being limited to peer interactions in that the
adolescent attempts to employ the same communication techniques with
authority figures (i.e., parents) that he or she does with peers. This
attempted transfer is hampered, however, by the parents being required to accept an alteration in the parent-adolescent relationship and to adapt to their adolescent's desire to express independence. Hazel, Sherman, Schumaker and Sheldon-Wildgen (in press) aptly point out that "the kinds of behaviors judged appropriate for a teenager in a particular interaction may be very different than those judged appropriate for a middle-aged person" (p. 6) Knapp (1978) agrees. Knapp points out that "the major activity of adolescence is the movement from one's home and family toward emotional, social and economic independence. More often than not, parents and children will manifest verbal struggles over how much independence is desirable in what areas and at what time." Knapp goes on to note that "peers can be effective allies or helpers in breaking unwanted family ties" (p. 240-241).

The shift in an adolescent's orientation from parent to peer has been documented in a study by Bowerman and Kinch (1959), wherein the adolescent's acceptance of parental influence is shifted to that of peer influence. A similar study by Floyd and South (1972) demonstrates the same phenomenon. These studies both reflect a dramatic decrease in parental influence, and a dramatic increase in peer influence during adolescence, particularly during the junior and senior high school years. Floyd and South argue that this transference of orientation is a function of the abilities of the reference group to meet needs. Bowerman and Kinch similarly argue that the two reference groups offer different dimensions of commitment, thereby suggesting that both serve
a valuable function. The problem lies in the fact that the functions of each reference group are not always compatible.

In their study using 315 sixth grade students, Bukowski and Newcomb (1983) found that social competence was based, by the adolescent, on being popular and well liked by peers. The problem with this is that being popular and well liked by peers does not necessarily, and in fact is not likely, to equate with being popular and well liked by parents. The adolescent is faced, therefore, with being required to interact with their peers in one way and with their parents in another way. The adolescent is often lacking in the skills necessary to accomplish this. It should be noted, however, that the cross sectional design of the Bukowski and Newcomb study limits its generalizability as the students were tested on only one occasion; it does, however, demonstrate the quandry of understanding interpersonal relations in adolescence.

One essential problem in parent-adolescent relationships, then, lies in the inability of the adolescent to transmit adequately to his/her parents the need for a symmetrical relationship. A reciprocal problem is, of course, that of the parents being unable or unwilling to accept the adolescent's need for independence or to reciprocate positive communication. The result of this breakdown in communication can be an adolescent's rebellion against parental dictates, lack of reciprocal positive communication, and a sense of frustration for the parents and adolescents. This sense of frustration, experienced by both the parent and adolescent, results in the need for the dyad to
deal with the resulting conflict. There are both appropriate and inappropriate methods of managing that resolution.

Montemayor and Hanson (1985), in a unique telephone interviewing study, in which 64 adolescents were asked to report interactions with a parent that resulted in interpersonal conflict, categorize three methods in which the conflict may be resolved:

- **Authoritarian**, in which one individual tells another to stop doing something or to do something, and the individual complies;
- **Withdrawal**, in which the two individuals ignore each other, change the subject, leave the area, or psychologically withdraw or stop talking;
- **Negotiation**, in which some type of discussion takes place and a compromise solution is arrived at (p. 6-7).

The results of the Montemayor and Hansen study demonstrate that conflict resolution between the adolescents and their parents employed withdrawal 47% of the time, an authoritarian solution 38% of the time, and negotiation only 15% of the time. This study used a cross-sectional design thereby limiting its ability to generalize. Also, the subjects were from narrow ethnic and socioeconomic strata. Despite these limitations, the study does demonstrate either an inability to communicate adequately or an unwillingness to do so on the part of the adolescent and the parent.

There are two alternative hypotheses for explaining the lack of appropriate interpersonal social skills within the context of parent-adolescent relationships. Arkowitz (1981) postulates that despite the fact that parents and adolescents have the appropriate social skills within their repertoire, they fail to employ those skills. The reason for such failure is that anxiety inhibits their proper use. Should
this "anxiety hypothesis" be accepted, it would suggest that the solution to the communication breakdown would be to provide relaxation or a related stress management therapy in order to reduce anxiety. A rival hypothesis, however, has been advanced by Hazel et al. (in press). They proposed that the inadequate use of appropriate social skills is simply a matter of not having those skills adequately internalized to allow for their use. They noted that social skills are behaviors that can be learned, thereby suggesting that through training in social skills parents and "adolescents can learn more appropriate, alternative ways of behaving, can incorporate new skills into their repertoires, and can use them as the need arises." (Hazel et al., in press, p. 3).

Evolution of Group Social Skills Training

It is this second hypothesis, of teaching social skills, that will now be explored. An assortment of group social skills training programs have been developed over the past decade. In a review of social skills training, Hazel et al. (in press) note that the concept of training social skills in groups has evolved from a variety of contributions, from several theoretical or conceptual perspectives, addressing various needs of selected groups. Among the fields of study cited are applied behaviorism (Phillips, Phillips, Fixsen & Wolf, 1972), social psychology (Argyle, 1972), clinical psychology (Goldstein, 1973; 1981) and group therapy (Rose, 1972; 1977).
adolescents is that of group social skills training. There are an assortment of reasons why this method has been so widely used. Among those are the opportunity for the group leader to facilitate rehearsal with a variety of people thereby enhancing the generalizability of the experience; support from group members who share similar concerns; an assortment of feedback sources for a participant's performance; a lower level of intimidation because of shared frustrations; and the input of a variety of specific problems to address (Upper & Ross, 1977; Trower, Bryant & Argyle, 1978).

In addition to the advantages of group facilitation, it is further noted by Hazel et al. (in press) that group training allows for a more efficient use of the trainers time; a multitude of models and problems to draw from; and an opportunity to expand the generalizability of the program through the incorporation of a variety of member experiences (Sansbury, 1979).

There are, however, negative factors of group skills training that must be recognized. These include inattentiveness, disruptiveness, nonresponsiveness, inappropriately delivered criticism, peer pressure to behave inappropriately and resultant high dropout rates (Delange, et al. 1981; Rotheram, 1980). Group social skills training is further hampered by virtue of the fact that group members will progress at varying rates, thereby restricting the group size to manageable leader/participant ratios (Kelly, 1982). Finally, Trower, Bryant and Argyle (1978) note that group dynamics are such that it is difficult to
provide the necessary attention to individual problems if the group is to remain on task.

Despite the noted limitations of group social skills training, it has proven successful for dealing with a multitude of adolescent problems by focusing on a host of specific interpersonal and social problems. For example, problem populations which have been targeted are delinquent youths (Minken, et. al. 1980; Manos, 1985; Thelen, Fry, Dollinger & Paul, 1976; Hazel, et al. 1981b; Stuart, 1971; Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1978; Kifer, Lewis, Green & Phillips, 1974), disruptive adolescents (Varcoe, 1983), shy adolescents (Franco, Christoff, Crimmins & Kelly, 1983), learning disabled adolescents (Schumaker, et al. 1982), adolescent psychiatric patients with a variety of diagnoses (Elder, Edelstein & Narick, 1979; Gutride, Goldstein & Hunter, 1973; Kolko, Dorsett & Milan, 1981), adolescents requiring assertiveness training (Lee, et al. 1979; Ollendick & Herson, 1979; Pentz, 1980; Pentz & Kazdin, 1982) and adolescents seeking employment (Heimberg, et al. 1982).

Almost as varied as the targeted populations are the diversification of methods employed to present the programs, each with its own strengths and weaknesses. Hazel et al. (in press) have grouped the training procedures into four categories of procedures:

Descriptive procedures include those primarily verbal procedures used by the trainer to explain what a skill is, why it is important to learn the skill, where the skill should be performed, and the specific steps in a skill. (p. 30).

Modeling procedures consists of some type of simulated presentation of the skill. Through modeling presentations, the trainer shows the specific behaviors
that comprise the social skill in their appropriate sequence...some modeling presentations have included both good and poor models...while others have included only appropriate examples ....Models have been presented live through audio, videotape, imagery or through a combination of these techniques. (p. 33). Behavioral rehearsal usually consists of practice of the skill by group members in which the group members each attempt to perform the skill in front of the group. A critical component of the behavioral rehearsal procedure is the feedback that is given to the individual regarding his/her role-play performance. (p. 34)

Application procedures consist of techniques, which...are designed to increase the likelihood that the adolescent will use the skill outside of the training setting and maintain this use over time.... A variety of procedures have been used to promote generalization of the skills (including) between session practice with teachers....homework assignments and homenotes...to promote generalization of the skill. (p. 35).

Ideally, a program should incorporate all of the training procedures in order to enhance the likelihood of participant internalization and subsequent use outside of the training session, which is the ultimate objective.

**ASSET: A Social Skills Program for Adolescents**

One program which incorporates descriptive, modeling, behavioral rehearsal and application procedures is Hazel et al's ASSET program (1981a). The program was developed for, and originally targeted at, juvenile delinquents. These interventionists, however, claim that the program is valuable for resolving "problems varying from occasional poor communication with parents...to habitual emotional struggles" (Hazel et al., 1981a, p. 5). Potential candidates for the program include adolescents "who engage in obnoxious, belligerent, or rebellious behavior; who refuse to obey reasonable requests; who are
sarcastic; or who are withdrawn and shy" (Hazel et al., 1981a, p. 11).

In developing a program that is capable of being applied to such a heterogeneous variety of behaviors the authors found it necessary to target very general social skills and also found it necessary to break down those skills into measurable behavioral components.

In response to this need, Hazel et al. (1981a) target eight social skills with this ASSET program. Their definitions include:

Giving positive feedback...teaches the teenager how to thank and how to compliment someone (p. 3).
Giving negative feedback...involves giving feedback in a calm nonthreatening manner, telling one's own perception of the situation, asking for the other person's perception, and suggesting changes (p. 3).
Accepting negative feedback...involves listening to criticism without getting angry. It requires that people listen closely to the feedback, ask permission to tell their side, and then tell their side with facts (p. 3).
Resisting peer pressure... (involves the teaching of) a few simple steps such as saying no, giving a reason for not engaging in the activity, and suggesting alternatives (p. 3).
Problem solving... (involves the teaching of a method) to think of a number of different possible solutions, (to the problem), to evaluate the good and bad results of each solution, to pick the most desirable results, and to choose the solution with those results (p. 4).
Negotiation...a joint problem-solving skill between two people (p. 4).
Following instructions involves both acknowledging and carrying out instructions (p. 4).
Conversation (involves skills which) enable teenagers to introduce themselves, to start and maintain a conversation... (and to) know how to ask questions (p. 4).

The eight skills focused on by ASSET are designed to be presented by a group leader who is aided by a videotaped role play and an explanation of each of the skills. The program is designed to consist of nine 1-1/2 to 2 hour sessions, one session for each skill and a final review session. Normally the sessions are presented at a rate of
one per week.

ASSET is designed for presenting these eight skills within a format that employs each of the training procedures outlined earlier (i.e., description, modeling, behavioral rehearsal and application). Description is accomplished by the trainer naming the skill, defining any terms, describing what the skill involves and outlining when and why it is used. This presentation is reinforced by the videotaped program in which a narrator also describes the skill that is to be focused on. Modeling procedures are accomplished by the participants watching videotape modeling sequences. These sequences provide both good and poor models. After each sequence, the performances are discussed and steps for the appropriate skill are reviewed to determine what areas could have been improved on. If necessary, additional modeling may be done by the trainer who can employ problem situations provided by the participants as genuine examples of conflict areas with their parents. The trainer would call on a participant to assist with the modeling of the skill. Behavioral rehearsal involves the use of predesigned skill sheets which outline a situation for the participants to respond to. The behavioral rehearsal is done in front of the whole group and feedback on performance is given by the group. Each of the participants is given an opportunity to perform a rehearsal. Again, genuine areas of conflict, provided by the participants may be incorporated into this phase of the program in order to enhance the reality of the behavioral rehearsal. Finally, application procedures
employed by the ASSET program consist of what is referred to as a "home note." This technique requires the adolescent to practice the skills learned within the home environment. Each home note includes a message to the parent about the skill to be practiced during the week. It also includes blanks for recording the situation practiced, whether the performance was done correctly and which, if any, steps were omitted.

ASSET has had only limited empirical testing as to its effectiveness. Because the program was originally designed to promote social skill development in delinquent adolescents the initial evaluations have been completed with court adjudicated youths. In the original study five youths volunteered to participate in the program. These youths were then matched with seven youths with similar ages, genders and prior offences. Only five of the eight skills were presented. The data indicate that the skill levels increased, after the onset of training, in four of the five skills trained and that the increases were maintained throughout the program for three of the five skills. Recidivism data collected over the next year showed no recidivism for the experimental group but that three of the seven subjects in the control group had at least one further juvenile court follow-up at the end of the year. The findings are equivocal at best. These findings may suggest that the program is effective in training youths to avoid detection and or arrest for their illegal acts and not, as is implied, the catalyst that resulted in their committing less offenses.

The initial evaluation offers promise that the ASSET program does
indeed improve social interactions. The validity of the findings is questionable, however, due to the small sample size and the fact that the experimental subjects volunteered for the program, thereby indicating a desire to rehabilitate, while the control group members were designated. Finally, a further limitation to the study is that the matching of the control group to the experimental group was based on only three variables, age, gender and prior offenses.

Further proof was recognized as necessary to establish the potential impact on adolescent social skill development. To that end a second study was undertaken by Hazel et al. (1981b). Again, methodology limitations diminish the utility of the findings. Many of the weaknesses of the first study are found in the second investigation. Despite demonstrating improved levels of skill performance on the six skills that were taught, the study once again used a small volunteer experimental sample of only 19 subjects and compared them with a control group that was matched on only one variable -- prior offenses. Again, recidivism was much lower for the experimental group than for the control group ten months after the program.

Schumaker et al. (1982) again employed ASSET in a study comparing learning disabled, non-learning disabled and delinquent adolescents. In this study, however, ASSET was merely employed as an instrument which measured individual differences in social skills levels. The program was not administered and the study was limited to stating that
non-learning disabled students were more socially skilled than learning disabled or delinquent students, when tested with the ASSET role play instrument.

Further evaluation research with the ASSET program was conducted by Serna, et al. (in press) to determine if the program could be improved by presenting seven of the eight skills outlined by Hazel et al. (1981a) to the adolescents while at the same time presenting the parents of the adolescents with a set of appropriate reciprocal skills. The skill of conversation was not used in this study. They were able to demonstrate that the internalization of social skills was sharply enhanced by including parents in the training program. Parents in an experimental group were taught reciprocal social skills that complimented the skills taught to the adolescents. Parents in a comparison group received no treatment. The skills were taught to the youths and the parents separately as specified by Serna et al. (in press) the reciprocal skills developed for the parent population included:

<table>
<thead>
<tr>
<th>Adolescent Skill</th>
<th>Reciprocal Parent Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving positive feedback</td>
<td>Accepting positive feedback</td>
</tr>
<tr>
<td>Giving negative feedback</td>
<td>Accepting negative feedback</td>
</tr>
<tr>
<td>Accepting negative feedback</td>
<td>Giving negative feedback</td>
</tr>
<tr>
<td>Resisting peer pressure</td>
<td>Giving rationales</td>
</tr>
<tr>
<td>Negotiation</td>
<td>Negotiation</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Facilitating problem solving</td>
</tr>
<tr>
<td>Following instructions</td>
<td>Giving instructions &amp; Teaching interactions</td>
</tr>
</tbody>
</table>

After the training of each skill, the parents and adolescents in the experimental group were taught to use their skills while engaging
in parent-adolescent dyadic interactions. The comparison group did not receive the dyadic interaction training. Results from this study showed overall improvements after training for both experimental and control groups. However, a ten month follow-up test showed that the maintenance of the adolescent's skills in the experimental group were significantly higher than for the comparison group. This study suggests that a social skills training program for parents and their adolescents may be more successful than an adolescents-only-training program in the maintenance of the skill over time. Again this study dealt with court adjudicated youths while employing a small sample size of only six families.

Further work employing ASSET with delinquent youths is currently being conducted by Michael Manos (1985). Manos has expanded the eight basic social skills covered in the ASSET program to thirty-one more refined skills. Manos has developed a delinquency prevention program which employs the teaching of social skills. Unfortunately, no data are yet available to assess program effectiveness.

Finally, ASSET has been used to assess social skill development among eighteen college students who reported a high degree of loneliness and a low level of social skills. Adams, et al. (1985) hypothesized that by improving social skills with the ASSET program the subjects would manifest a corresponding decrease in loneliness. Eight of the subjects were selected by virtue of availability and were given a five week presentation of the eight social skills as outlined by ASSET. The remaining ten subjects were used as a control group.
Results of this study demonstrate that although the experimental subjects significantly improved their scores on the targeted ASSET skills, when compared with the control group, there were no corresponding significant decreases in their loneliness scores.

This study suggests that loneliness may be too far removed from the effects of a social skills program to be affected by a five week intervention. It does, however, provide further evidence that the ASSET program is capable of improving the skills which it targets.

Summary

Adolescence is a life stage which is characterized by rapid and, at times, distressful transformation in social relations. Research has demonstrated that adolescents are further hampered by a breakdown in communications with their parents. It has been suggested that communication problems between adolescents and parents is due, in part, to a genuine lack of social skills required to maintain interpersonal communications and to the adolescents’ tendency to identify more closely with their peers than with their parents. To remedy this situation, group social skills programs have been developed over the past decade in an effort to bridge that gap in an adolescent’s development. One such program is called ASSET. Although ASSET does indeed show promise in its ability to improve targeted social skills, it has not been adequately tested empirically.

This study is designed to subject the ASSET program to an experimental testing to validate its usefulness in improving parent-
adolescent communications. This study will incorporate the findings of Serna et al. (in press) which suggests that the most effective method of presenting the ASSET program is to offer the program to adolescents while, at the same time, presenting a reciprocal program to parents. Joint training should enhance and reinforce social skills and subsequently enhance interactions between parents and adolescents.

Research Hypotheses

The literature reviewed suggests that a group social skills program might be effective in (a) improving parent-adolescent communications, (b) enhancing their ability to resolve problems, and (c) improving the subjects' performance on the targeted social skills. Accordingly, directional hypotheses were proposed:

1. Adolescents and parents experiencing a training program in social skill development, in comparison with a corresponding control group, will manifest significantly greater gains in observed performances of the specific training skills.

2. In addition to social skill development, the experimental group, in comparison to the control group, will manifest greater positive gains in self reported interpersonal communications.

3. The experimental group, in comparison to the control group, will manifest greater gains in their self reported resolution of interpersonal problems.

4. A ten week training program format will be more effective than a one week program in improving the subjects' observed and self
reported behavioral performances of the targeted social skills.
**PROCEDURES**

Population and Sample

The targeted population, for this study, was parent-adolescent dyads who were willing and able to attend the ASSET program on a consistent basis over an eight week period as well as attend a pretest and posttest session.

Recommendations of the ASSET program that "there be a heterogeneous group of teenagers" (Hazel et al., 1981a p. 13) with regards to gender and age were adhered to. The participants ranged in age from 13 to 17 years.

While ASSET was originally developed to engage in social skills training with delinquents, this study addressed itself to "normal" adolescents. Those youth who had been court adjudicated were excluded.

This study included participation of the parents in the treatment program. The parent group consisted of both mothers and fathers, however, only one parent per adolescent participant was used. There were no parent substitutions allowed (i.e., if the mother started the program, she was committed to finishing it).

As was noted earlier, the sample was limited to subjects that were able to attend the program on a weekly basis for ten weeks. As a result of that limitation the accessible population was restricted to residents of the local area. That restriction resulted in the population being dominated by subjects who were caucasian, middle class, and members of the Church of Jesus Christ of Latter Day Saints.
(Mormons) providing, therefore, a substantially homogeneous sample relative to ethnic origin, economic class, and religious affiliation thereby limiting the generalizability of these findings.

Various sampling techniques were employed. Referrals from the Church of Jesus Christ of Latter Day Saint's social services department, from the county mental health clinic and from local junior and senior high school counselors were solicited. Advertisements in local papers and on local radio and T.V. stations were used. Finally, a notice of the program was mailed to every student in the local junior and senior high schools.

The result of this extensive campaign was a population of 43 parent-adolescent dyads who volunteered to participate. The dyads were advised that participation in the program involved:

1. Pretest.

An evening of evaluation to determine the strengths and weaknesses of the parent-adolescent interpersonal relationship. The evaluations were scheduled for individual participants during the week of February 10 to February 14, 1986.

2. Experimental Group.

Attending a series of eight two hour sessions to be held once per week for eight consecutive weeks from February 8th to April 12, 1986. (The sessions were offered to different groups on Monday, Tuesday, Wednesday and Thursday evenings and participants signed up for a specific group).

3. Posttest.
An evening of further evaluation was held during the week of April 14th to April 18th, 1986.

4. Control Group and Second Posttest.

As an alternative to taking the course once per week for eight weeks, a complete presentation of the course was offered on a concentrated basis during the week of April 19th to April 26th. The concentrated course was available only to those who participated in both evaluation sessions but not in the course presentation over the eight week period. Participants went for three hours/night on Saturday, April 19, Tuesday, April 22, Wednesday, April 23, Thursday, April 24, and Saturday, April 26, 1986. A portion of the Saturday, April 26 session involved a third set of evaluations. The subjects involved with this program provided a control group. The final evaluation was for those control subjects only and provided a second posttest.

There were 43 parent-adolescent dyads who volunteered to participate. Thirty two of the dyads expressed an interest and were assigned to attending the sessions which ran once per week for eight weeks (experimental treatment group). Eleven of the parent-adolescent dyads expressed an interest and were assigned to participate in the concentrated one week program.

Criteria were established which required those in the experimental groups complete a pretest, posttest and a minimum of six of the eight sessions before they would be included in the analysis. Criteria for
the treatment group required only that they complete the pretest and posttest. The results of those requirements were that 18 of the 32 dyads assigned to the experimental group met the minimal requirements. Eight of the eleven control group dyads completed the pretest and posttest. Seven of those eight control group dyads also completed the concentrated one week program and the second posttest.

It is recognized that these methods of gathering the sample reduced the generalizability of the findings of the study. A heterogeneous sample regarding age, gender, ethnic origin, and religious affiliation would have broadened the generalizability. However, the requirement of having the subjects participate in a lengthy program recognizably restricted generalizability by virtue of the selection bias imposed by a requirement of geographical stability in the area in order physically to attend the sessions. The non-random assignment of the subjects to the experimental and control groups further jeopardizes the validity of the findings but was necessary so that an adequate number of participants could be retained.

One of the weaknesses of group social skills training programs that was identified in the literature review was a high attrition rate. The selective attrition from the study further confounds results due to a bias towards the conscientious and healthier subjects. As was noted earlier, the experimental group had an attrition rate of 44% (14 of the 32 dyads did not complete the entire program to a minimal level). The control group had an attrition rate of 36% (four of the 11 dyads did not complete the entire program to a minimal level). It should be
noted, however, that the attrition in the control group included one subject who did not return after the ten week time span that elapsed between the pretest and posttest and two dyads who elected not to start the course. Of the nine dyads who actually started the one week course, only two did not complete the program to a minimal level. That would indicate that a short program has a greater opportunity of retaining subjects than the longer program (i.e., a 22% attrition rate for the short program versus a 44% attrition rate for the longer program).

**Design**

A modified pretest-posttest control group design was employed for this study. Participants, once identified for both the treatment and control groups, were invited by note and phone call to come to the first session and were scheduled every 15 minutes on that first evening. During that session all the participants were asked to complete the appropriate section of the Parent Adolescent Relationship Inventory, either the parent or the adolescent version, whichever was applicable (see Appendices A and B). Subjects were then asked to participate in the pretest training checklist for the ASSET program (see Appendix C). The performances on the ASSET pretest were videotaped and scored by an independent scorer who was blind to whether the videotaped sessions were pretest or posttest, and also blind as to whether they were treatment or control group members.

The participants were also asked to identify three legitimate
points of conflict between the parent and adolescent. These points of conflict were employed later in the program for role playing of the eight social skills being taught. This technique was used to enhance the program's ability to incorporate a semblance of realism. One of the weaknesses of the ASSET skills training program is its artificial nature. The role play contexts are fictitious and the questionnaires offer only indirect measures of social skills performance. It was hoped that with the incorporation of legitimate issues that were actually being experienced by the subjects would assist the subjects in enhancing the degree to which the program would be internalized.

During the first week, after the pretest instruments had been administered and before the presentation of the first social skill, the trainers phoned the adolescent participants. This telephone interview served two purposes. First, it demonstrated the trainer's legitimate interest in having the adolescent participate. Second, it provided the trainer with the opportunity to have the adolescent recall any interaction with the participating parent during the previous day. Details of that interaction were recorded and the appropriate use of social skills were determined. For example, if the parent had told the adolescent to go to the grocery store, the adolescent's response could have resulted in either a "negotiation" situation or a "following instruction" situation. It was up to the individual who was recording the information to determine which was the appropriate skill to measure and to record those results on an ASSET behavioral scoring sheet. The
interview was based on the ASSET skill which was most applicable to the specific interaction that was related. The components of the skill were detailed and the adolescent's perception of his/her performance recorded. This procedure was repeated following the presentation of the final social skill and prior to the posttest instruments being administered. It was hoped that this technique, which was adapted from one developed by Montemayor and Hanson (1985), would provide an additional self perception comparison between pretest, posttest, and pretest-to-posttest scores. It was further hoped, that by using this technique, the application of the skills being presented could be determined. These results were not used because they proved to be ineffective. The most significant reasons for their being ineffective was the inability of the adolescents to recall adequately their most recent interactions and the lack of environmental control over the interactions (i.e. if the interaction took place in a vehicle, it was not possible for the participants to face the other person, maintain eye contact or control for posture). These discrepancies made pretest to posttest comparisons inconsistent and, therefore, unusable.

The week following the pretest session, the treatment group started the ASSET program. Since the ASSET program was initially designed to be presented to adolescents only, the presentation format, as outlined in the ASSET manual, was modified to include parent participants.

Each session began with the entire group, adolescents, parents, and both group leaders in one room. At that time there was a review of
the skill taught in the previous session, homework assignments were reviewed by the whole group and questions were answered. Following the review of the previous weeks skill (with, of course, the exception of the first night), there was a description of the new skill to be learned and a showing of the ASSET video presentation relative to the new skill. The adolescents were then asked to leave the room and they, along with one of the two group leaders, were moved to another room.

Once the adolescents had settled in the other room, they were taught the new skill by explanation, example, and role play. The steps required to employ the new skill were worked on until each adolescent had gained experience with the skill. The parents, in the mean time, were instructed regarding a reciprocal skill as per Serna et al’s (in press) program which was outlined in the prior research information. (See appendix C). Although Serna’s program excludes ASSET’s conversation skill, this study retained that skill and presented it to both the parents and the adolescents (see Appendix C).

The requirement was to have all of the participants able to master the criterion for each step to 100% accuracy. Once that objective was met the groups were brought back together and a role play between parents and adolescents was used to further aid in the internalization of the skill. The role play was drawn from situations provided by the ASSET program or from the problem situations that were provided by the subjects themselves. The dyad would have a situation provided, for example, negotiation with regards to curfew, and appropriate use of the
skill was determined from feedback from the rest of the group.

At the end of each session homework assignments were given which employed that week's skill. The assignments were due at the next session. Completion of the homework assignment was sporadic and poorly recorded by the participants. Each of the sessions lasted approximately two hours from start to finish.

After all eight skills had been presented there was a final session wherein the posttest instruments were administered. These tests paralleled the pretests.

The posttest included both the control and the treatment groups. Retention of the control group was maintained with the promise of the consolidated one week presentation of the ASSET program. Posttests were again presented to the control group following their one week concentrated course.

The research design, therefore, was as follows:

<table>
<thead>
<tr>
<th>Pretest</th>
<th>Treatment 1</th>
<th>Posttest 1</th>
<th>Treatment 2</th>
<th>PostTest 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(32)</td>
<td>(25)</td>
<td>(18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T 1......X 1............T 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(11)</td>
<td>(9)</td>
<td>(7)</td>
<td>(7)</td>
<td></td>
</tr>
<tr>
<td>C 1............C 2.........X 2............C 3</td>
<td></td>
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</tr>
</tbody>
</table>

[* (n) the numbers of subjects who completed each phase of the program.]

This design allowed the comparison of the PARI and ASSET scores for the treatment group, pretest to posttest, with a control group for comparison purposes. The design also provided a comparison of an extended term course presentation with a short-term presentation by
comparing the treatment group is posttest 1 scores with the control group's posttest 2 scores. There were, therefore, two experiments within the one project. First, there was an experiment in which the independent variable was the skills level on the ASSET program and the dependent variable was the levels and types of parent-adolescent interpersonal communication as defined by the PARI instrument. Second, there was an experiment comparing instructional styles wherein the independent variable was the length of time used to present the ASSET program and the dependent variable was the resulting scores on the ASSET posttest instruments.

Internal Validity

Each of the basic types of experiments had its weaknesses and/or limitations. Campbell and Stanley (1963) have addressed the topic of internal validity (whether the experiment can demonstrate that the treatment, and not some confounding variable, made a difference in this specific instance), noting the relevant shortfalls of experimental designs. The internal validation concerns for a standard pretest posttest experimental control group design are minimal. In this design history is controlled for in that any historical event that influences the treatment group, also influences the control group. Likewise, maturation and testing are equally confounded for both experimental and control groups in that both experience equivalent influences. Indeed, the scores for both the treatment and control group may increase due to maturation and testing effects, but it was hypothesized that the
treatment group's scores would increase at a greater rate due to training effects.

As a result of the program employing not only fixed printed instruments or scales but also observation of videotaped behaviors, there was a potential for an instrumentation effect. However, once again both groups experienced equivalent testing influences. Testing effects were minimized by (a) employing only one observer for the parent group and another for the adolescent group during testing thereby eliminating any interrater effects, and (b) by keeping the scorers blind as to which subject's videotapes were pretest, posttest, treatment or control. Inter-rater reliability for the two scorers was established using a training criteria of 80% agreement.

Also, as noted earlier, the nature of training studies are such that selective mortality will offer a potential confound in an effect by virtue of biasing the experimental sample's results towards those subjects who were conscientious and healthy since a subject who is too sick to attend the minimal number of sessions would be excluded from the analysis. Conscientiousness is an issue for a study dealing with interpersonal relations since those who stayed with the program demonstrated a greater desire to improve their interpersonal relations. Again, however, the attrition affected both the treatment and control groups.

The second experiment, however, did not share the advantages of the pretest to posttest control group design enjoyed by the first. The
primary difference was that the treatment group received their eight week program immediately following a pretest experience. The control group, on the other-hand, received a pretest; ten weeks later they received a posttest, and only then did they receive their concentrated one week program. These differences provide several rival hypotheses.

First there was a potential history effect as the programs took place at different times, thereby exposing the groups to different experiences. Maturation differences, although nominal, since it is only a matter of two weeks further confound these results. Finally, the second experiment shared the first experiment's potential validity problems regarding instrumentation, sample selection and mortality.

External Validity

Having considered the internal validity issues and some of the weaknesses of this study, it is now necessary to appraise external validity issues. As Campbell and Stanley (1963) ask "To what populations, settings, treatment variables and measurement variables can this effect be generalized?" (p. 5). The response to that query, for this study is that it is not possible to generalize beyond the specific sample. That response is the result of the use of a small localized sample and instruments not yet adequately tested.

Progress in the technical and mundane side of science is made by many small steps, not by leaps and bounds (Kuhn, 1962). This study is limited to stating that the effect of the treatment is valid only for the pretested groups that match the specific age, socioeconomic status,
geographical region and historical moment of those tested. That phenomenon is particularly true for this study as the population of the locale is heavily influenced by the Mormon Church, the political proclivity is substantially Republican and conservative, and the area is predominantly rural. Presentation of these instruments to a variety of populations will be necessary before results can be generalized beyond this limited scope.

**Instrumentation**

As noted in the literature review, empirical testing of the ASSET program prior to this study had been primarily limited to delinquents and learning disabled populations. Estimates of reliability were generally gone unreported. There were, therefore, little validity or reliability data available for the ASSET pretest or posttest instruments. In fact, this study offers a significant contribution toward compiling that information. What little work that had been done with ASSET prior to this study demonstrated that the program was capable of improving the participants' scores for the targeted social skills (evidence of predictive validity). Indeed, our previous research (Adams, et al. 1985) has demonstrated that the training program can increase skills and that inter-rater reliability can be established between trained raters.

The use of the reciprocal program for parents is even more limited in its exposure to testing and, indeed, none of that research has yet been published. There is, however, an article in press (Serna et al.,
in press) regarding the reciprocal parent program.

The parent-adolescent relationship inventory (PARI) has received a more substantial exposure, although it too is relatively new (Robin, et. al. 1984). The instrument has had internal consistency validated but as yet requires more extensive use before predictive validity can be established. Therefore, estimates of internal consistency are provided as a part of this investigation.

Finally, the concept of employing a telephone interview to validate use of the skills in a realistic setting was totally untested. Montemayor and Hanson (1985) enjoyed substantial success with this method in their study of adolescent conflict. However, as was discussed earlier, methodological concerns with this research prohibited the use of that data.

Analysis

Analysis of the data was accomplished by employing SPSSX used by the social science departments at Utah State University. Specific tests depended on the hypothesis being tested. For the most part, these tests consisted of t-tests between pretest, posttest, and pretest-to-posttest scores.

In order to respond to the stated hypotheses, the analysis of the collected data focused on the four stated hypotheses. One hypothesis stated that there would be significantly greater gains for the treatment vs. the control group, for the ASSET observed and self-reported behavioral performances of the targeted social skills. First
a comparison of the treatment and control group pretests was used to determine whether or not the groups were reasonably similar at the inception of the program. Second, a $t$-test was used to test for a significant difference between the treatment groups pretest and posttest to determine if there was a change as a result of their participation in the ASSET program. Third, another $t$-test was used to compare the treatment group and the control group posttests to determine if any change in the treatment group was the result of the ASSET program or merely the reflection of a history or maturation effect. Finally, a $t$-test comparing the control groups pretest and posttest scores was used to determine the magnitude of change due to experimentation/training.

Other hypotheses stated that there would be significantly higher scores statistically for the treatment vs. control group, for the PARI interpersonal communication and problem solving sub-scales. As part of the proposed analysis a series of Pearson product-moment correlations were computed to determine the interrelationship between the eight ASSET sub-scales and the two identified PARI sub-scales. Likewise, a series of $t$-tests were computed on the pretest, posttest, and pretest-to-posttest comparisons.

The final hypothesis proposed that when ASSET was presented over a ten week vs. one week training period, the longer program would be more effective for improving the subjects observed and self reported behavioral performances on the targeted social skills. Therefore, a comparison was made between the treatment groups posttest and the
control groups second posttest scores by again using a series of t-tests. As was discussed earlier, this result must be interpreted cautiously as a result of the different experiences, prior to the program, that were experienced by the two groups.
RESULTS

Reliability and Validity Estimates

Reliability. Reliability estimates for both the PARI subscales and the individual behaviors in the ASSET training program were computed to assure a sound psychometric foundation to measurement in this study. First, reliability estimates based on internal consistency estimates (Cronbach’s alpha) were derived for the Communication and the Problem Solving subscales of the PARI. Table 1 summarizes these findings. Alphas ranged from .76 to .99—all significant beyond p < .001. Comparisons with alphas reported by Robin et al. (1984) using a sample approximately three times larger reveal similar alpha levels. Second, test-retest estimates were derived using the control group (n=7) where correlations were computed between the pretest and post-test measures. The time lapse was approximately 12 weeks, well beyond the typical 1-3 days commonly used to assess attenuation in reliability. Nonetheless, as Table 2 indicates, a significant and or substantial correlation is found for many of the measures. Finally, it will be recalled that inter-rater reliability was established by setting a training criteria for scoring the ASSET tapes for the two raters of 80% agreement. While the latter is not an estimate of reliability of the subject, it does constitute another check on reliability of the measurement in this study.

Validity. Tables 3-5 provide various estimates of validity indicators to the measurements used in this study. Table 3 summarizes
TABLE 1: Reliability Estimates (Alpha) For Adolescent Sample

<table>
<thead>
<tr>
<th>ADOLESCENTS</th>
<th>PRE-TEST</th>
<th>POST-TEST #1</th>
<th>POST-TEST #2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alpha</td>
<td>Alpha</td>
<td>Alpha</td>
</tr>
<tr>
<td>A. Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) with mother</td>
<td>.83 (.89)</td>
<td>.76</td>
<td>.98</td>
</tr>
<tr>
<td>2) with father</td>
<td>.91 (.91)</td>
<td>.83</td>
<td>.99</td>
</tr>
<tr>
<td>B. Problem Solving</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) with mother</td>
<td>.85 (.84)</td>
<td>.81</td>
<td>.97</td>
</tr>
<tr>
<td>2) with father</td>
<td>.86 (.89)</td>
<td>.83</td>
<td>.98</td>
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<table>
<thead>
<tr>
<th>PARENT</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>A. Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>with adolescent</td>
<td>.92 (.94)</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>B. Problem Solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>with adolescent</td>
<td>.88 (.91)</td>
<td>.91</td>
</tr>
</tbody>
</table>

NOTE: Figures in parentheses are average alphas for mother-father and son-daughter scores for a sample of 83 subjects taken from the research done of the PARI instrument by Robin et al. (1984).
TABLE 2: Zero Order Correlations of Test-Retest Reliability Estimates Over Twelve Weeks for Adolescent and Parent Control Groups Samples.

N = 7

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adolescent</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with mother</td>
<td>.84*</td>
<td></td>
</tr>
<tr>
<td>with father</td>
<td>.78*</td>
<td></td>
</tr>
<tr>
<td>with adolescent</td>
<td></td>
<td>.93*</td>
</tr>
<tr>
<td>Problem Solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with mother</td>
<td>.92*</td>
<td></td>
</tr>
<tr>
<td>with father</td>
<td>.77*</td>
<td></td>
</tr>
<tr>
<td>with adolescent</td>
<td></td>
<td>.97*</td>
</tr>
<tr>
<td><strong>ASSET</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving positive feedback</td>
<td>.06</td>
<td>.80*</td>
</tr>
<tr>
<td>Accepting positive feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving negative feedback</td>
<td>.38</td>
<td>.88*</td>
</tr>
<tr>
<td>Accepting negative feedback</td>
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<td></td>
</tr>
<tr>
<td>Accepting negative feedback</td>
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<td>.45</td>
</tr>
<tr>
<td>Giving negative feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resisting Peer Pressure</td>
<td>.14</td>
<td>-.08</td>
</tr>
<tr>
<td>Giving Rationale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving</td>
<td>.32</td>
<td>.79*</td>
</tr>
<tr>
<td>Facilitating Problem Solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation</td>
<td>.47</td>
<td>.04</td>
</tr>
<tr>
<td>Following Instructions</td>
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<td>-.26</td>
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<tr>
<td>Giving Instructions</td>
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<td></td>
</tr>
<tr>
<td>Communication</td>
<td>.48</td>
<td>.53</td>
</tr>
</tbody>
</table>

Note: * - p < .05
TABLE 3: Zero Order Correlations Between PARI Communication and Problem Solving Subscales for Parents and Adolescents on the PARI Pretest Measures.

\( N = 25 \)

<table>
<thead>
<tr>
<th>Adolescent</th>
<th>Problem Solving With</th>
<th>Problem Solving With</th>
<th>Adolescent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td></td>
</tr>
<tr>
<td>A. Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) with mother</td>
<td>.81*</td>
<td>.57*</td>
<td></td>
</tr>
<tr>
<td>2) with father</td>
<td>.71*</td>
<td>.92*</td>
<td></td>
</tr>
<tr>
<td>B. Problem Solving</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) with mother</td>
<td></td>
<td>.68*</td>
<td></td>
</tr>
<tr>
<td>2) with father</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Parent

A. Communication with Adolescent

Note: * = significant to \( p < .05 \)
the inter-scale correlation between the two PARI measures in the present investigation. As anticipated, in all cases the communication and problem solving subscales showed significant and substantial inter-scale correlations for both the adolescent and parent samples, where analyses were computed on pretest measures that were not confounded by experimental treatment.

Table 4 summarizes the inter-correlations between the eight basic social competency behaviors in the ASSET program. Once again, using the pretest data (that is unconfounded by experimental treatment) it was observed that (a) the eight behaviors were modestly correlated with each other in mostly appropriate ways, while (b) demonstrating that social skills or competency is not a single unitary or monolithic behavioral construct. For example, while giving positive feedback for adolescents and accepting positive feedback for parents was generally positively correlated with most of the remaining social skills, it shared between 4 and 27% variance with other social skill behaviors. This is clear evidence of modest association with other measures and relatively high uniqueness of each behavior. Behaviors which stand out are central or focal ones among the eight, as reflected by several significant correlations with other behaviors, include positive feedback, negative feedback, negotiations, following instructions, problem solving and communication. These six general behavior types appear to be the most salient behaviors within the ASSET measurement and training program.

Table 5 presents data as yet unreported in published literature.
TABLE 4: Zero Order Correlations Between ASSET Behaviors on Pretest Scores for Adolescents and Parents.

N = 25

**ADOLESCENT ASSET**

<table>
<thead>
<tr>
<th></th>
<th>GPF</th>
<th>CNF</th>
<th>ANF</th>
<th>RPP</th>
<th>PS</th>
<th>N</th>
<th>FI</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving Positive Feedback (GPF)</td>
<td>1.00</td>
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<td>.27</td>
<td>.33</td>
<td>.21</td>
<td>-.36*</td>
<td>.32</td>
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<tr>
<td>Accepting Pos. Feedback (APF)</td>
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<td>.37*</td>
<td>.34*</td>
<td>.21</td>
<td>.57*</td>
<td>.14</td>
<td>.43*</td>
<td></td>
</tr>
<tr>
<td>Giving Negative Feedback (GNF)</td>
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<td>-.10</td>
<td>.21</td>
<td>.25</td>
<td>.48*</td>
<td>-.06</td>
<td>.49*</td>
<td></td>
</tr>
<tr>
<td>Accepting Neg. Feedback (ANF)</td>
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<td>.10</td>
<td>.20</td>
<td>.26</td>
<td>-.01</td>
<td>.06</td>
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<td></td>
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<tr>
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<td>.07</td>
<td>-.03</td>
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<td>.14</td>
<td>.05</td>
<td>.46*</td>
<td>.11</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Giving Rationale (GR)</td>
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<td>.38*</td>
<td>.21</td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving (PS)</td>
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<td>.09</td>
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</tr>
<tr>
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<td>.22</td>
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<td></td>
</tr>
<tr>
<td>Negotiation (N)</td>
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<td>.46*</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation (N)</td>
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<td>.36*</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Following</td>
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<td></td>
</tr>
<tr>
<td>Instruction (FI)</td>
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<td></td>
<td></td>
<td></td>
<td>-.08</td>
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<td></td>
<td></td>
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<tr>
<td>Giving</td>
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<td></td>
<td></td>
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<tr>
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<td>Communications (AC)</td>
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</table>

**PARENT ASSET**

<table>
<thead>
<tr>
<th></th>
<th>APF</th>
<th>ANF</th>
<th>GNF</th>
<th>GR</th>
<th>FPS</th>
<th>N</th>
<th>GI</th>
<th>AC</th>
</tr>
</thead>
</table>

NOTE: Parent sample correlates for reciprocal skills are listed directly below those of the adolescents.

* = p < .05
TABLE: 5 Zero Order Correlations Between the ASSET Behaviors and the Communication and Problem Solving Assessments for Adolescents and Parents on Pretest Measure.

N = 25

<table>
<thead>
<tr>
<th></th>
<th>Communication w/ Parent Subjects</th>
<th>Problem Solving w/ Parent Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
</tr>
<tr>
<td>GPF</td>
<td>.29</td>
<td>.46</td>
</tr>
<tr>
<td>APF</td>
<td>-.05</td>
<td>-.15</td>
</tr>
<tr>
<td>GNF</td>
<td>.11</td>
<td>.17</td>
</tr>
<tr>
<td>ANF</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>RPP</td>
<td>.25</td>
<td>.48*</td>
</tr>
<tr>
<td>PS</td>
<td>.16</td>
<td>-.01</td>
</tr>
<tr>
<td>FPS</td>
<td>-.02</td>
<td>.12</td>
</tr>
<tr>
<td>N</td>
<td>-.14</td>
<td>.00</td>
</tr>
<tr>
<td>GI</td>
<td>-.10</td>
<td>.23</td>
</tr>
<tr>
<td>C</td>
<td>-.10</td>
<td>.23</td>
</tr>
</tbody>
</table>

NOTE: *p < .05
That is, a correlation was computed between observed social skills and self-reported assessments of communication and problem solving on the PARI. While no significant correlations were observed for the parental sample in this study, both self-reported communication and problem solving abilities on the PARI were correlated with giving positive feedback and resisting peer pressure on the ASSET behaviors. That is, adolescents who reported more effective and positive communication and problem solving abilities with parents were observed in their pretest behaviors with the ASSET measure to be more effective at giving positive feedback. They were also more sophisticated in their ability to show how to resist peer pressure.

**Summary.** This study was built on reliable measurement as estimated by internal consistency and test-retest correlations. The interscale correlations, such as the PARI, measures two related social competency measures as theoretically anticipated from the literature review. Finally, at least for the adolescent sample (for which ASSET was originally intended), we observe some evidence that the PARI and certain ASSET scales are convergent. However, the limitation of these findings regarding validity is that (1) behavioral indices of social competency must be viewed primarily from a single behavior at a time since each of the behaviors appear to be unique, and (2) that the PARI appears to be mostly measuring a self-perception process that is not broadly correlated with related social behavioral indices. Therefore, distinctions should be made between "actual behaviors manifested" and
more general "self-perceptions" of social relations and social interaction skills.

Pretest Group Equivalence

In that a total random group design was impossible due to voluntary participation, comparisons were made between the experimental and control groups on the pretest measures of the ASSET and PARI assessments. Table 6 summarizes the findings for adolescents and Table 7 for parents. Nonsignificant differences between groups were observed for ASSET behaviors such as giving negative feedback, accepting negative feedback, problem solving, negotiations, and communication. However, significant differences were observed on the behaviors of giving positive feedback, resisting peer pressure and following instructions.

The control group, on the average, was more effective initially, in giving positive feedback and resisting peer pressure but less effective at following instructions. No group differences were observed on the PARI subscales measuring communication and problem solving. The data summarized in Table 7 indicate that the experimental and control groups were fully equivalent on all self-report and social behavior measures at the beginning of the study for parents.

Pretest to Posttest Change

Total adolescent and parent sample. Tables 8 and 9 summarize the assessment of change for the experimental and control groups between
TABLE 6: Mean Comparisons with Standard Deviations Between Experimental and Control Groups on Pretest (Adolescent Sample) N = 18 Experimental  7 Control

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental</th>
<th>Control</th>
<th>t-value</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
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<td><strong>ASSET</strong></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Giving + Feedback</td>
<td>59.0</td>
<td>10.1</td>
<td>69.9</td>
<td>2.7</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>29.7</td>
<td>8.5</td>
<td>28.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Accepting - Feedback</td>
<td>55.8</td>
<td>6.0</td>
<td>53.9</td>
<td>7.0</td>
</tr>
<tr>
<td>Resisting Peer Pressure</td>
<td>49.7</td>
<td>8.5</td>
<td>57.9</td>
<td>7.6</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>43.3</td>
<td>9.0</td>
<td>47.3</td>
<td>14.1</td>
</tr>
<tr>
<td>Negotiation</td>
<td>56.5</td>
<td>18.2</td>
<td>62.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Following Instructions</td>
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<td>48.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Communication</td>
<td>50.0</td>
<td>11.3</td>
<td>52.3</td>
<td>7.9</td>
</tr>
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<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
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<td>22.3</td>
<td>36.6</td>
<td>16.9</td>
</tr>
<tr>
<td>Communication/Father</td>
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<td>30.3</td>
<td>20.2</td>
</tr>
<tr>
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<td>36.4</td>
<td>20.0</td>
</tr>
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<td>Problem Solving/Father</td>
<td>41.7</td>
<td>26.9</td>
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</table>
TABLE 7: Mean Comparisons with Standard Deviations Between Experimental and Control Groups on Pretest (Parent Sample)
N = 18 experimental 7 Control

<table>
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<tr>
<th>Variable</th>
<th>Experimental Mean</th>
<th>SD</th>
<th>Control Mean</th>
<th>SD</th>
<th>t-value</th>
<th>prob.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>ASSET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepting + Feedback</td>
<td>69.8</td>
<td>11.0</td>
<td>60.7</td>
<td>14.8</td>
<td>1.68</td>
<td>ns</td>
</tr>
<tr>
<td>Accepting - Feedback</td>
<td>58.4</td>
<td>10.9</td>
<td>56.1</td>
<td>13.8</td>
<td>.43</td>
<td>ns</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>32.8</td>
<td>8.0</td>
<td>30.1</td>
<td>6.7</td>
<td>.64</td>
<td>ns</td>
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<tr>
<td>Giving Rationale</td>
<td>41.4</td>
<td>16.4</td>
<td>35.0</td>
<td>12.7</td>
<td>.93</td>
<td>ns</td>
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<td>8.2</td>
<td>54.6</td>
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<td>ns</td>
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<td>Giving Instructions</td>
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TABLE 8:  Pretest to Posttest Mean Comparisons with Standard Deviations for Experimental and Control Groups for Adolescents.

N = 18 Experimental  7 Control

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<th>Posttest M</th>
<th>SD</th>
<th>t-test</th>
<th>prob.</th>
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<td></td>
</tr>
<tr>
<td>Giving + Feedback</td>
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<td>67.9</td>
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<td></td>
<td>C</td>
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<td>7.2</td>
<td>74.0</td>
<td>9.3</td>
<td>- .96</td>
<td>ns</td>
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<tr>
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<td>E</td>
<td>29.7</td>
<td>8.5</td>
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<td>-5.69</td>
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<td></td>
<td>C</td>
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<td>31.7</td>
<td>6.1</td>
<td>- .64</td>
<td>ns</td>
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<tr>
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<td>6.0</td>
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<td>-2.84</td>
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<td>C</td>
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Note:  E = experimental  C = control
TABLE 9: Mean Comparisons with Standard Deviations for Experimental/Control Groups on Pretest to Posttest Scores

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the pretest and post-test time of measurement. As hypothesized, when significant change was observed, it was generally observed for the experimental but not the control groups for both the adolescent and parent samples. For the adolescent samples, significant experimental versus control group change was observed for the measures of giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, problem solving ability, negotiation, and communication. As to self-report perceptions of communication and problem solving with parents, no substantial change occurred for the adolescent sample due to experimental training in the ASSET program.

Parental change in behavior was observed on all 8 ASSET behaviors for the experimental group but not control group subjects. Significant increases were observed on all behaviors. Likewise, on the communication and problem solving subscales of the PARI, experimental parent subjects on the average reported increases in both self-report perception behaviors in their social relationships with their adolescent.

To summarize, the ASSET training program, in general, appeared to enhance social behaviors and social skills in the adolescent population trained in this study. While behaviors improved, however, perceptions of improvement did not emerge. As to parents, the training program enhanced some behaviors but diminished effectiveness (on the average) with other social skills behaviors. The effectiveness of increasing several behaviors was about equal to those that decreased. While
improvement was observed in about half the behaviors, the self-perceptions of communication and problem solving skills enhanced as measured by the PARI and showed perceived improvements.

**Adolescent gender differences.** As an exploratory analysis, potential gender differences in the experimental group were examined. Table 10 shows comparisons between male and female adolescents for pretest to posttest comparisons from the experimental group of the ASSET and PARI measures. In general, when one gender was manifesting nonsignificant change the other group was equally likely to show no change. However, exceptions were observed for accepting negative feedback and problem solving. Males showed significant change in problem solving, while females showed significant change in accepting negative feedback. Further, greater magnitude in change was observed on the measures of giving negative feedback and resisting peer pressure for males versus females. These findings suggest that gender differences may be observed in a training program using ASSET.

**Parental differences.** Another exploratory series of analyses were undertaken to assess potential differences in effectiveness of training for mothers versus fathers (see Table 11). Four nonsignificant training effects were observed for fathers while only one was observed for mothers. Fathers failed to improve on accepting positive feedback, giving rationales, negotiations, and facilitating problem solving, whereas mothers failed to improve on facilitating problem solving behaviors alone. In all fairness, fathers made significantly greater
TABLE 10: Mean Comparisons with Standard Deviations on Pretest to Posttest Scores for Experimental Group Males and Females (Adolescents).

N = Male 10  Female 8

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Note:  M = males;  F = females
TABLE 11: Mean Comparisons with Standard Deviations for Parent Experimental Pretest to Posttest Group Scores for Males and Females (Parents)

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Note: in the gender column M = males; F = females
gains than mothers in giving negative feedback and giving instruction. These findings suggest that effectiveness in training may be most likely observed in mother-adolescent dyads. Fathers may be more resistant and less willing to change behaviors in the context of ASSET training programs.

**Experimental Versus Control Group Differences on Post-test Measures**

Further analyses of the pretest posttest experimental control group design were undertaken to determine if significant differences could be detected between the experimental and control groups on the posttest measures. Data summarized in tables 12 and 13 indicate that the training program did lead to substantial experimental effects. Table 12 shows that, for the adolescent sample, significant differences in favor of the experimental treatment were observed on the ASSET behaviors of giving negative feedback, accepting negative feedback, problem solving, negotiation, and following instructions. However, no group differences were observed on the self-report PARI measures. For the parent sample (as summarized in Table 13), significant differences were observed in favor of the experimental effect for all ASSET behaviors, except facilitating problem solving behavior. Further, no significant group differences were observed in the self-reported measures of the PARI. In general, these findings support the hypothesis that experimentally induced increases in social skill behaviors were evidenced by this investigation; however, self-perceptions of communication and problem solving effectiveness may not
<table>
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<tr>
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TABLE 13: Mean Comparisons with Standard Deviations Between Experimental and Control Groups on Posttest (Parent Sample).

N = 18 Experimental  7 Control

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have been realized.

**Control-Group-to-Experimental Group: Short-term Training**

The final objective of this study was to determine if a short-term training program of approximately one week is as potentially effective as a longer ten week program. Data summarized in Tables 14 and 15 compare the posttest scores from the original group experiment with that of the second posttest scores wherein the control group became an experimental group. The analyses indicate that for both the adolescent and parent samples, no significant increase of importance to the experimental effect as observed. Indeed, in several cases the week long program of training reduced effectiveness in either social behaviors or self-perceptions. This suggests that a short-term program was too concentrated and too demanding for adolescents and/or parents to internalize and/or effectively assimilate.
TABLE 14: Mean Comparisons with Standard Deviations on Posttest 1 and Posttest 2 Scores for Control-to-Experimental Group Short-term Condition (Adolescent Sample).

N = 18 Experimental 6 Control

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TABLE 15: Mean Comparisons with Standard Deviations on Posttest 1 and Posttest 2 Scores for Control to Experimental Groups Short-term Condition (Parent Sample).

N = 18 Experimental  6 Control

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DISCUSSION

Review of Hypotheses

The objective of this study was to determine if a group social skills training program, when presented to parent-adolescent dyads, could enhance their self-reported parent-adolescent interpersonal relationships. It was hypothesized that, by enhancing a core of social skills, the parent-adolescent dyads would realize a corresponding improvement in their interpersonal relationships.

The subjects that were used in this study volunteered to participate. There was no coercion employed to compel the subjects to participate. This would suggest that the subjects were biased towards being intrinsically interested in the improvement of their relationship. This bias was augmented by virtue of the exclusion of those subjects who did not meet certain minimal standards of participation, thereby screening out those subjects who were less conscientious than the others. These sampling biases should have enhanced any experiment effect resulting from the findings of this study.

The first hypothesis stated that adolescents and parents experiencing a training program in social skills development, in comparison with a corresponding control group, would manifest significantly greater gains in their observed performances of specific training skills. This hypothesis was central to any other results obtained. That the ASSET program did indeed aid in the acquisition of
the defined social skills. The results of these findings were confounded to some extent by some significant differences between the adolescent experimental and control groups for three of the eight skills, specifically giving positive feedback, resisting peer pressure and following instructions. Despite these differences, the adolescent experimental group demonstrated significant gains in seven of the eight skills, following instruction being the only exception. The control group did not demonstrate those gains, thereby confirming the stated hypothesis.

The parental group provided less confounded results than the adolescents. There were no significant differences in the parental pretest results for the experimental versus the control group and the parental experimental group demonstrated significant gains in all ASSET observed behaviors, where the control group showed none.

These results confirm the nominal amount of prior research done with the ASSET program and suggest that the program is indeed effective in improving the performance of the behavioral components on the social skills defined by the program.

The second and third hypotheses were predicated on the results of the first hypothesis. The second and third hypotheses state that, in addition to the social skill development, the experimental group, in comparison with the control group, will manifest greater positive gains in self-reported interpersonal communications and in self-reported resolutions of interpersonal problems compared.

As was noted in the results section, there were no significant
increases in the PARI self-reported instrument for either communications or problem solving for the adolescents treatment or control groups. There were, however, significant increases for the treatment group of parents. These results suggest that the parents were better able than their adolescents to use the social skills gained and the shared experience of attending the ASSET program to improve their perceptions of interpersonal communication and problem solving skills with their adolescent. The ability to transfer the ASSET program to these variables, by the parents only, could be supported by any number of explanations. It may be that the increase for parents was the result of a greater level of maturity. It could be that, since the participation of the subjects was, without exception, initiated by the parents, the adolescents may have been resisting any effect by virtue of feeling they had been coerced into participation. The parents may have, therefore, gone into the program expecting an improvement in the relationship, whereas the adolescent was resistant to that change. Another possibility is that the posttesting was done too soon after the completion of the ASSET program, thereby resulting in the adolescent having inadequate time to acquire any measurable interpersonal changes. Finally, a "sleeper" effect may have been realized if testing had been delayed to allow for a greater internalization of the skills. Verification of that possibility could be accomplished by administering an additional posttest at a later date.
The final hypothesis of this report dealt with the issue of the comparable impact of the ASSET Social Skills program when presented, as designed, over a ten week format as opposed to presenting it on a concentrated basis for one week. This final experiment was contaminated by several issues. The group who received the one week course was the same group that acted as control group for the balance of this study. That meant that they had two behavioral assessments done prior to taking the course, they had a maturation factor as a result of having to wait before being presented with the course and there was a potential for a history effect during the interim between courses. In addition to these confounding effects, the instructors of the course had gained experience in doing their presentations to the treatment group and were, presumably, more skilled in their presentation of the material for the shorter program. Finally, the group presented with the course over a one week program had less time to forget the material presented.

These confounding effects would suggest that subjects who took the one week course were at a substantial advantage over those who took the longer term presentation. Despite that fact, as was reviewed in the results section, the one week session was not as effective as the ten week session. Scores on the behavioral component of ASSET for the short program actually decreased from the pretest results.

Explanations for the poor performance of the shorter program include the fact that the short program resulted in the subjects confusing the eight skills and, therefore, feeling muddled when
presented with the behavioral role plays. Also, the short course did not allow for any home work with the corresponding opportunity to internalize any of the skills. Although subjects in the longer course rarely completed their home assignments, there was more time for them to employ the skills in a natural setting. Consequently, the fourth hypothesis was confirmed as the ten week course was, indeed, more effective.

Further Research Needed

Having reviewed the four hypotheses, there are a few observations that should be commented on prior to concluding this thesis. First, in attempting to locate an adequate sample for this study, several media were explored. Radio, television and newspaper articles resulted in few, if any, referrals to the program. Posting of flyers at areas with a substantial traffic flow was ineffective. The technique of visiting school, church, and professional counselors resulted in only a few potential contacts. Sending letters to church leaders and youth organizations such as Boy Scouts and the Family and Child Support Center resulted in no referrals. The only method that proved to be effective was a direct mailing of a brochure briefly describing the program to the parents of every junior and senior high school student in the community. This technique did, however, require the permission of the superintendent of schools to allow us permission to gain access to the school mailing lists. There was substantial concern varied to ensure that there was no fee being charged for the training sessions.
The methods of acquiring adequate samples for adolescent research needs to be explored further in the hopes that future work may be reduced by understanding the most effective method of acquiring an appropriate population to sample. This study is limited in its ability to make any generalized statement due to the sampling weaknesses it was forced to employ.

Second, the fact that in the ten week course there was a carry over effect for parents but more for adolescents needs to be studied closer in order to determine the reasons.

Third, this study could have been much stronger had it been able to extend to a longitudinal design with at least one more measurement of to determine whether there was a drop off of behaviors or perceptions or if there was a "sleeper" effect and the behaviors or perceptions were enhanced. if indeed a "sleeper effect" did result in a greater internalization of the skills at a later time. The author would gladly assist in the location of the research subjects.
REFERENCES


Bronfenbrenner, U. (1970). Reaction to social pressure from adults versus peers among Soviet day school and boarding school pupils in the perspective of an American sample. *Journal of Personality and


and Clinical Psychology, 46, 1448-1462.


Psychology, 27, 77-83.


Schumaker, J.B., Hazel, J.S., Sherman, J.A., & Sheldon-Wildgen, J.


Thompson, D.C., & Hudson, G.R. (1982). Values clarification and behavioral group counseling with ninth-grade boys in a residential


APPENDICES
Appendix A
PARI Subscales - Parents

PARENT ADOLESCENT RELATIONSHIP INVENTORY (PARI): PARENT FORM

Communication Scale: Parent Form

1. My teenager lies to me often.
2. My teenager is defensive when I talk to him/her.
3. My teenager thinks my opinions don’t count.
4. My teenager provokes me into an argument at least twice a week.
5. My teenager blows up for no reason.
6. When we discuss things my teenager gets restless.
7. My teenager leaves the house after after we have an argument.
8. My teenager will approach me when something is on his/her mind.
9. My teenager screams a lot.
10. My teenager sulks after an argument.
11. My teenager usually listens to what I tell him/her.
12. My teenager brings up a lot of my faults when we argue.
13. My teenager and I argue at the dinner table at least half of the time we eat together.
14. My teenager can’t take jokes.
15. When I try to tell my teenager something, he/she doesn’t let me finish.
16. The talks I have with my teenager are frustrating.
17. My adolescent exaggerates my faults or problems.
18. My teenager gets mad and often gives me the silent treatment.
19. My teenager purposely talks in a way that I don’t understand.
20. When my teenager and I talk, I can tell he/she understands me.

21. My teenager is bossy when talking to me.

22. My teenager calls me bad names.

23. My teenager nags me a lot.

24. My teenager rarely listens to me during an argument.

25. My teenager puts me down a lot.

26. My teenager does all the talking when we try to have a discussion.

27. My teenager talks nicely to me most of the time.

28. My teenager listens to me when I need someone to talk to.

29. My teenager admits when he/she's wrong about something.

30. My teenager and I try to understand each other's feelings.

31. My teenager tends to agree with me to avoid an argument.

32. I can tell how my teenager feels by the look on his/her face.

33. My teenager makes it easy for me to talk to him/her.

34. I feel like I can express my feelings to my teenager openly.

35. Sometimes my teenager and I can understand each other just by a look.

36. My teenager and I are able to have good talks.

37. My teenager listens to me even when we argue.

38. My teenager compliments me when I've done something well.

39. I can tell how my teenager feels by the tone of his/her voice.

40. If I don't understand my teenager, he/she will try to explain him/herself.

41. My teenager is usually able to sense the way I feel.

42. When we discuss something my teenager asks about my opinion or
feelings.

43. When my teenager jokes we both have a good laugh.

44. My teenager often accuses me of doing crooked things like cheating on taxes.

45. When we talk, my teenager says the same things over and over.

46. My teenager mumbles under his/her breath when he/she talks to me.

47. My teenager says I have no consideration for his/her feelings.

48. My teenager acts impatient when I talk.

49. For the most part, my teenager likes to talk with me.

50. My teenager never understands my side of the argument.
Problem-solving Scale: Parent Form

1. My teenager is not aware of the things that he/she does that bother me.
2. My teenager talks to me when he/she feels that we have a disagreement.
3. Things have to get really bad before my teenager approaches me with problems.
4. My teenager collects all the facts before coming to a conclusion.
5. My teenager encourages me to tell my side of the argument.
6. When we have talks, my teenager makes his/her point clear.
7. My teenager expresses opinions during our talks.
8. My teenager doesn’t ask for my ideas for solving arguments.
9. When my teenager and I have a problem, we usually can figure out how to deal with it.
10. My teenager has some good ideas about how to solve problems.
11. When I come up with ideas, my teenager tells me I am old fashioned.
12. When my teenager and I argue, we often get stuck without finding any solutions.
13. My teenager and I discuss the pros and cons of our ideas before making decisions.
14. My teenager and I never seem to agree.
15. My teenager leaves the house in the middle of our arguments.
16. My teenager and I usually reach an agreement.
17. My teenager will sometimes meet me halfway when solving problems.
18. My teenager and I end our arguments calmly.
19. My teenager always has to win arguments.
20. My teenager is rarely willing to try my ideas.
21. My teenager does not live up to our agreements.
22. When my teenager comes up with an idea, we discuss how it's likely to turn out.
23. My teenager and I frequently loose track of the point in an argument.
24. My teenager and I avoid problems by not talking about them.
25. My teenager and I start arguing about one thing and end up arguing about something else.
26. My teenager and I usually stick to the topic when we argue.
27. When we argue, my teenager brings up things from the past.
28. Frequently when we argue, my teenager and I go over and over the same old things.
29. My teenager is unwilling to meet me halfway to end arguments.
30. My teenager thinks my opinions don't count.
31. Even when I disagree with my teenager, I know where he/she is coming from.
32. Because my teenager understands me, he/she has good ideas for solving our problems.
33. My teenager makes impulsive decisions without considering the consequences.
Appendix B

PARI Subscales - Adolescents

Communication Scales: Adolescent Form

1. My mother lies to me often.
2. My father lies to me often.
3. My mother leaves the house often when we have an argument.
4. My father leaves the house often when we have an argument.
5. My mother will approach me when something is on her mind.
6. My father will approach me when something is on his mind.
7. My mother screams a lot.
8. My father screams a lot.
9. My mom brings up a lot of my faults when we argue.
10. My dad brings up a lot of my faults when we argue.
11. My mom and I argue at the dinner table at least half of the time we eat together.
12. My dad and I argue at the dinner table at least half of the time we eat together.
13. When I try to tell my mother something, she doesn't let me finish.
14. When I try to tell my father something, he doesn't let me finish.
15. My mother uses big words that she doesn't explain.
16. My father uses big words that he doesn't explain.
17. When my mother talks to me I can tell she understands me.
18. When my father talks to me I can tell he understands me.
19. My mother is bossy when talking to me.
20. My father is bossy when talking to me.
21. My mother calls me lazy or other bad names.
22. My father calls me lazy or other bad names.
23. My mother nags me a lot.
24. My father nags me a lot.
25. My mom puts me down a lot.
26. My dad puts me down a lot.
27. My mother does all the talking when we try to have a discussion.
28. My father does all the talking when we try to have a discussion.
29. My mother listens to me when I need someone to talk to.
30. My father listens to me when I need someone to talk to.
31. My mom admits when she is wrong about something.
32. My dad admits when he is wrong about something.
33. My mom and I try to understand each other’s feelings.
34. My dad and I try to understand each other’s feelings.
35. My mother makes it easy to talk to her.
36. My father makes it easy to talk to him.
37. Sometimes my mom and I can understand each other just by a look.
38. Sometimes my dad and I can understand each other just by a look.
39. My mom listens to me even when we argue.
40. My dad listens to me even when we argue.
41. I can tell how my mom feels by the tone of her voice.
42. I can tell how my dad feels by the tone of his voice.
43. When we discuss something my mom asks about my opinion or feelings.
44. When we discuss something my dad asks about my opinion or
feelings.

45. When we talk my mom says the same old things over and over.

46. When we talk my dad says the same old things over and over.

47. My mom says I have no consideration of her feelings.

48. My dad says I have no consideration of his feelings.

49. My mom almost never understands my side of an argument.

50. My dad almost never understands my side of an argument.
Problem-Solving Scale: Adolescent Form

1. My mom is not aware of the things she does that bother me.
2. My dad is not aware of the things he does that bother me.
3. My mom collects all the facts before making decisions.
4. My dad collects all the facts before making decisions.
5. My mom encourages me to tell my side of the argument.
6. My dad encourages me to tell my side of the argument.
7. My mom doesn’t ask for my ideas for solving arguments.
8. My dad doesn’t ask for my ideas for solving arguments.
9. My mom has some good ideas about how to solve problems.
10. My dad has some good ideas about how to solve problems.
11. When my mom and I argue, we often get stuck without finding any solutions.
12. When my dad and I argue, we often get stuck without finding any solutions.
13. My mother and I discuss the pros and cons of our ideas before making decisions.
14. My father and I discuss the pros and cons of our ideas before making decisions.
15. My mom and I usually can reach an agreement.
16. My dad and I usually can reach an agreement.
17. My mom will sometimes meet me halfway when solving problems.
18. My dad will sometimes meet me halfway when solving problems.
19. My mom always has to win arguments.
20. My dad always has to win arguments.
21. My mom is rarely willing to try my ideas.
22. My dad is rarely willing to try my ideas.
23. My mom does not live up to our agreements.
24. My dad does not live up to our agreements.
25. When my mom comes up with an idea, we discuss how it's likely to turn out.
26. When my dad comes up with an idea, we discuss how it's likely to turn out.
27. My mom and I frequently lose track of the point in an argument.
28. My dad and I frequently lose track of the point in an argument.
29. My mom and I avoid problems by not talking about them.
30. My dad and I avoid problems by not talking about them.
31. My mom and I argue a lot about rules.
32. My dad and I argue a lot about rules.
33. My mom and I usually stick to the topic when we argue.
34. My dad and I usually stick to the topic when we argue.
35. Frequently when we argue, my mom and I go over and over the same old things.
36. Frequently when we argue, my dad and I go over and over the same old things.
37. My mom is unwilling to meet me halfway to end arguments.
38. My dad is unwilling to meet me halfway to end arguments.
39. My mother makes quick decisions without understanding their consequences.
40. My father makes quick decisions without understanding their consequences.
Appendix C
ASSET Checklists

PARENTS
ACCEPTING POSITIVE FEEDBACK

1. Face your child.
2. Look directly at the youth--keep eye contact.
3. Smile when you are talking.
4. Use an enthusiastic tone of voice.
5. Keep a relaxed posture.
6. Acknowledge the youth's feedback by responding positively to the compliment or the "thanks."
7. If the youth leads into a conversation, you can respond with a statement concerning the topic.
   If the youth does not lead into a conversation, you can ask a question that will lead into a conversation.
PARENTS
ACCEPTING NEGATIVE FEEDBACK

1. Face the youth during the conversation.
2. Remain calm -- no movement away from the youth giving feedback.
3. Maintain eye contact with the youth.
4. Keep a neutral facial expression.
5. Maintain a straight posture.
6. Pay attention when the other person is talking by giving headnods.
7. Restate what the youth said to check for understanding of what was said -- or ask for clarification.
8. If you agree with the feedback, apologize and ask for suggestions.
   If you do not agree with the criticism, tell the youth that you understand the criticism and tell your side with facts and rationales.
   If you decide not to accept the feedback state your rationales with the benefits and consequences of your actions.
9. Thank the youth or give a statement of appreciation (or a statement that you understand the youth).

REMEMBER TO:

   Keep a normal voice tone.
   Pay attention when the other person is talking by saying "MM-HMM or Yes"
   Remain calm
   Do not interrupt the youth when he/she is speaking.
Stay near the youth -- don’t move away.

Listen closely to the youth so that you know what he/she is saying.

REMAIN CALM!
PARENTS
GIVING NEGATIVE FEEDBACK

1. Face the person who you are talking to.
2. Use a serious voice tone.
3. Keep eye contact.
4. Keep a straight posture.
5. Keep a serious facial expression.
6. Ask if you could talk to the person for a moment.
7. First say something positive about the person.
8. Tell the person how you feel or what you think he or she did wrong.
9. Give the person a reason for changing.
10. Ask the person if he or she understood what you said.
11. If the person did not understand, explain again.
12. Ask the person how he or she feels.
13. Give the person suggestions for changing.
14. Thank the person for listening to you.
15. Change the topic to something else.

During the conversation remember to use a concerned tone of voice and be sure to tell the person that you are concerned about him or her.
PARENTS
GIVING RATIONALES

1. Face the youth when talking to him/her.
2. Keep a serious facial expression.
3. Maintain eye contact.
4. Use a casual statement
   (eg. If you_________________________, then__________________________)
5. State the **benefits** the youth may obtain by doing something appropriate.
   - State the short-term benefits the youth will acquire.
   - State the long-term benefits the youth will acquire.
6. State the **negative consequences** the youth may receive by doing something inappropriate or not doing something appropriate.
7. Ask the youth if he/she understands.
8. Ask the youth how he/she feels.
9. End the conversation with a concerned statement about the youth or the problem.

**REMEMBER:**
Use a concerned voice tone.
Make the rationale personalized (what is important to the youth)!
Give examples of short-term future (if possible).
Give examples of long-term future (if possible).
PARENTS
FACILITATING PROBLEM SOLVING

1. Try to remain calm.
2. Thank your son/daughter for coming to you with the problem.
3. First try to decide **what exactly is the problem.** Ask the Youth for clarification (if necessary).
4. **Ask your son/daughter to think of at least three different solutions to the problem.**
5. If the youth can't think of enough solutions, you might volunteer a solution to help him/her.
6. After the youth has come up with three different solutions, PRAISE THE YOUTH for being able to do this.
7. **Ask your child to think of the results to each solution -- what will happen if you use the solution.** The results he/she should consider:
   a. how others will react.
   b. the immediate good and bad results.
   c. the long-term good and bad results.
8. Ask your child to decide on the most desirable results -- the ones with the most good and least bad. (Make sure it is the youth's decision).
9. **Ask your child to choose the solution that leads to the best results.**
10. **Ask your child to figure out the steps to do the solution.**
    You may have to guide him/her through this.
11. PRAISE your child for working out the problem.

If the solution does not work, help your child go back to step 4 and pick the second best solution. Then go through the steps again.

You may need to combine solutions to get the results that your child would want, so be ready to guide him/her toward this.

You may need to instruct your child that the solution might not work.

If it does work, reassure him/her that you will continue to help.
1. Face the youth.
2. Look directly at the youth -- keep eye contact.
3. Keep a neutral facial expression.
4. Keep a straight posture.
5. Keep a normal voice tone.
6. After the youth has stated what he/she wants, ask him/her for more information. (If necessary).
7. State your opinion with rationales.
   Give your opinion.
   State the benefits the youth may obtain by doing something appropriate.
   State the negative consequences the youth may receive by doing something inappropriate or not doing something appropriate.
8. Wait for the youth’s response.
9. If the youth agrees, let him/her know that you appreciate the youth seeing your side of the conflict.
   If the youth does not agree, propose a solution with pros and cons.
   *If the youth accepts the solution, let the youth know you appreciate the youth agreeing to the solution.
   *If the youth does not accept the solution, ask the youth to think of a solution.
10. Thank the youth for working out the problem.
11. Pay attention to the youth while he/she is talking by saying "mm-hmm."

12. Do not interrupt when the youth is talking.

REMEMBER:

Remain calm and try to think of some possible solutions or compromises to the problem.
1. Face the youth.
2. Keep eye contact.
3. Keep a neutral facial expression.
4. Keep a straight posture.
5. Get the youth’s attention (e.g. calling his/her name).
6. State the instruction in the form of a request.
   Make sure that you are specific about the required behavior involved in the instruction.
7. Give a rationale for the request.
8. Ask the youth if he/she understands the instructions.
9. If the youth does not understand the instructions, explain again.
10. When the youth agrees, state a positive consequence for following the instructions.
11. If the youth agrees, state a positive consequence for following the instructions.
12. If the youth does not agree, give a rationale for the youth to follow the instructions.
   Go back to step 7 and repeat the sequence.

REMEMBER:

Keep a normal voice tone throughout and to remain calm. Do not argue with the youth or use a disgusted voice tone.
1. Face the youth.
2. Keep eye contact.
3. Keep a neutral facial expression.
4. Keep a straight posture.
5. Give the youth an initial positive comment.
6. Specify and define what you want the youth to do.
   Say exactly what you want done and how you want it done --
   steps in the task.
7. Give a rationale (both positive and negative consequences)
   --why the task is important
   --why it is important to do the task correctly.
8. Demonstrate the correct behavior for the youth.
9. Have the youth practice the task (behavior) for you.
10. PRAISE the youth for doing the task (behavior)
    --be descriptive and specific.
11. Correct the youth’s behavior if he/she did not do the task
    correctly.
12. Repractice the skill with the youth (after you have corrected
    his/her behavior).
13. Praise the youth for doing the task.
14. Talk with the youth and plan when he/she will use this behavior.

REMEMBER:
Keep the youth involved throughout the entire process especially in the
rationale and definition of the steps.
PARENTS
CONVERSATION

1. Face the person during the conversation.
2. Maintain eye contact with the person.
3. Smile during the conversation.
4. Use a pleasant voice tone.
5. Maintain a relaxed conversational posture - not slouched, but not tense.
6. Say words of greeting.
7. Introduce himself/herself if necessary.
8. Ask an open-ended question to elicit information.
9. Ask another open-ended question about the topic of conversation.
10. Ask a third open-ended question about the topic of conversation.
11. Make a statement relevant to the topic of conversation.
12. Make another statement relevant to the topic of conversation.
13. Make another statement relevant to the topic of conversation.
14. End the conversation with some type of closing statement.
15. Wait for the other person to finish before saying anything (not interrupt).
16. Give the other person an opportunity to talk by being silent after asking a question or making a statement.
17. Give positive feedback through head nods and by saying "mm-hmm" and "yeah" during the other person's response.
1. Face the person when giving feedback.
2. Maintain eye contact with the person.
3. Smile when giving feedback.
4. Use an enthusiastic voice tone.
5. Maintain a relaxed posture.
6. Give the feedback.
7. Wait for a response.
8. If the response was positive, use the response to lead into a conversation.
   If the response was negative, restate the feedback and then change the subject.
9. Make sure the feedback was sincere, not sarcastic or dishonest.
ADOLESCENTS
GIVING NEGATIVE FEEDBACK

1. Face the person when giving feedback.
2. Maintain eye contact with the person.
3. Keep a serious facial expression.
4. Use a serious voice tone.
5. Maintain a straight posture.
6. Ask to talk to the other person for a moment.
7. Initially give a positive statement or compliment.
8. Ask how he/she feels or what he/she feels that the other person has done wrong.
9. Give the other person a reason for changing.
10. Ask if the other person understands what was said.
11. Clarify the feedback, if necessary.
12. Ask how the other person feels (what is the other person's side).
13. Give the other person suggestions for changing or improving.
14. Thank the other person for listening.
15. Change the topic to something else.
16. Make a statement of concern or understanding.
17. Don't "put down" the other person.
1. Face the person during the conversation.

2. Maintain eye contact with the person.

3. Keep a neutral facial expression.

4. Use a normal voice tone.

5. Maintain a straight posture.

6. Stay near the person.

7. Listen closely when the person is talking and remember to give head nods and say "mm-hmm" and "yeah".

8. Ask for clarification, if necessary.

9. If he/she agrees with the feedback, apologizes and either says that he/she understood the feedback or asks for suggestions.

10. If he/she doesn’t agree with the feedback, says that he/she understood, then asks permission to tell his/her side and tells it with facts.

11. If the other person is an authority figure, accepts the feedback, even if he/she does not agree with it.

   If the other person is not an authority figure, either accept the feedback or thank the person for his/her concern and say that he/she will think about it.

12. Remain calm and make no angry statements of accusations.

13. Don’t interrupt with the other person is speaking.
ADOLESCENTS
RESISTING PEER PRESSURE

1. Face the person during the conversation.
2. Maintain eye contact with the person.
3. Keep a serious facial expression.
4. Use a concerned, serious voice tone.
5. Maintain a straight posture.
6. Make a positive statement about the person.
7. Say that he/she will not engage in the proposed act (say no).
8. Give a personal reason for not engaging in the act.
9. Suggest an alternative activity for everyone.
10. If the alternative was not accepted, restate that he/she will not participate and leave the situation.
ADOLESCENTS
PROBLEM SOLVING

1. Remain calm.
2. Decide exactly what the problem is.
3. Name a possible solution.
4. Name another possible solution.
5. Name another possible solution.
6. Name the positive and negative results for the first possible solution.
7. Name the positive and negative results for the second possible solution.
8. Name the positive and negative results for the third possible solution.
9. Decide on the most desirable results (most positive and least negative).
10. Choose the solution that leads to the most positive and least negative results.
11. Formulate the steps necessary to accomplish this solution.
12. If the first solution did not work, pick the second best solution and figure out the steps for achieving it.
1. Face the person during the conversation.
2. Maintain eye contact with the person.
3. Keep a neutral facial expression.
4. Use a normal voice tone - positive and nonaccusing.
5. Maintain a straight posture.
6. Ask to talk to the other person.
7. State what he/she wanted.
8. Give a reason for the request.
9. Wait for a response.
10. If the response is positive, thank the person.
    If the response is negative, ask the person if he/she could think of anything the participant could do to get what was wanted.
11. Listen to the other person’s response.
12. If satisfied with the solution, agree and thank the person.
    If not satisfied with the solution, propose a compromise.
13. If the other person agreed with the compromise, thank him/her.
    If the other person did not agree, ask for another solution and continue negotiating.
14. Pay attention to the other person while he/she is talking by giving head nods and by saying "mm-hmm" and "yeah".
1. Face the person when receiving instructions.
2. Maintain eye contact with the person.
3. Keep a neutral facial expression.
4. Use a normal voice tone.
5. Maintain a straight posture.
6. Listen closely, giving feedback with head nods and by saying "mm-hmm" and "yeah".
7. Acknowledge the instruction.
8. Ask for clarification, if necessary.
9. Say that he/she would follow the instructions.
10. Follow the instructions.
12. Don't argue with the person about the instructions.
1. Face the person during the conversation.
2. Maintain eye contact with the person.
3. Smile during the conversation.
4. Use a pleasant voice tone.
5. Maintain a relaxed conversational posture - not slouched, but not tense.
6. Say words of greeting.
7. Introduce himself/herself if necessary.
8. Ask an open-ended question to elicit information.
9. Ask another open-ended question about the topic of conversation.
10. Ask a third open-ended question about the topic of conversation.
11. Make a statement relevant to the topic of conversation.
12. Make another statement relevant to the topic of conversation.
13. Make another statement relevant to the topic of conversation.
14. End the conversation with some type of closing statement.
15. Wait for the other person to finish before saying anything (not interrupt).
16. Give the other person an opportunity to talk by being silent after asking a question or making a statement.
17. Give positive feedback through head nods and by saying "mm-hmm" and "yeah" during the other person's response.
Appendix D

Bibliography


Research & Therapy, 17, 7-16.
