THE EFFECTS OF AN ADOLESCENT SOCIAL SKILLS TRAINING PROGRAM ON ADOLESCENT SEX OFFENDERS

by

Roger B. Graves

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

in

Family and Human Development
ACKNOWLEDGEMENTS

I am deeply indebted to Dr. D. Kim Openshaw, without whom this research would not have been possible. I am grateful for his invaluable assistance, expert advice, and all the frequently needed encouragement that he provided me throughout the course of this project. I wish to thank Dr. Gerald Adams, not only for all his help with this project but also for challenging me to broaden my personal and professional horizons through looking at the world from new and novel perspectives. To Dr. Carolyn Barcus I offer my sincere appreciation for her willingness to become part of my committee so late in the project.

I am very thankful for the cooperation, time, and assistance provided by Dr. Carlos Roby and the staff at Intermountain Sexual Abuse Treatment Center of Salt Lake City, Utah. For the young men who participated in the study for their hard work, recognition of a difficult problem, and willingness to do something positive about it, my thanks—this is for you.

To my friends and family who have been so supportive throughout this project and my academic career, I am forever grateful. Finally, to my beloved wife, Gena, I cannot begin to express my gratitude for all her support and patience, without which none of this could have ever been accomplished.

Roger B. Graves
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
</tr>
<tr>
<td>ABSTRACT</td>
</tr>
<tr>
<td>CHAPTER</td>
</tr>
<tr>
<td>I DEVELOPMENT OF THE PROBLEM</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Hypotheses</td>
</tr>
<tr>
<td>Definitions</td>
</tr>
<tr>
<td>II PRIOR RESEARCH</td>
</tr>
<tr>
<td>Profile of the Adolescent Sex Offender</td>
</tr>
<tr>
<td>The Victim of the Adolescent Sex Offender</td>
</tr>
<tr>
<td>Context and Contributing Factors in Adolescent Sex Offending</td>
</tr>
<tr>
<td>Development of the Adolescent Sex Offender</td>
</tr>
<tr>
<td>Social Skills Deficit and the Sexual Offender</td>
</tr>
<tr>
<td>ASSET: Adolescent Social Skills Effectiveness Training</td>
</tr>
<tr>
<td>ASSET Training in Parent-Adolescent Dyads</td>
</tr>
<tr>
<td>III METHODOLOGY</td>
</tr>
<tr>
<td>Population</td>
</tr>
<tr>
<td>Sample</td>
</tr>
<tr>
<td>Experimental Group</td>
</tr>
<tr>
<td>Control Group</td>
</tr>
<tr>
<td>Pretests</td>
</tr>
<tr>
<td>Training</td>
</tr>
<tr>
<td>Posttests</td>
</tr>
<tr>
<td>Instrumentation</td>
</tr>
</tbody>
</table>
IV DESIGN.......................................................... 36
  Analysis...................................................... 37
V RESULTS........................................................ 39
  Considerations for Random Assignment........ 39
    Pretest comparisons: Experimental
    versus control group equivalence........ 40
    Pretest Versus Posttest Comparisons..... 43
    Experimental Versus Control Group
    Posttest Comparisons......................... 47
    Differences Between Pre Versus Posttest
    Parent Measures for the Experimental
    Group.................................................... 50
VI DISCUSSION.................................................. 54
  Review of Hypotheses................................. 54
  Elucidation of Discrepant Findings............ 56
  Implications for Future Research.............. 59
    Methodological considerations.......... 61
    Considerations for treatment
    outcome............................................. 64
REFERENCES..................................................... 66
APPENDICES........................................................ 72
  Appendix A: PARI Subscales - Parent
    Report............................................... 73
  Appendix B: PARI Subscales - Adolescent
    Report............................................... 78
  Appendix C: ASSET Pre- and Posttraining
    Checklist............................................ 83
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Research and Survey Supported Typology of Adolescent Sex Offenses</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Research and Survey Supported Typology for Victims of Adolescent Sex Offenses</td>
<td>13</td>
</tr>
<tr>
<td>2.</td>
<td>Demographic Characteristics of the Adolescent Sex Offender</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td>Personality and Social Characteristics of the Adolescent Sex Offender</td>
<td>16</td>
</tr>
<tr>
<td>4.</td>
<td>Mean Comparisons Between Experimental and Control Groups on Pretests (Adolescent Sample)</td>
<td>41</td>
</tr>
<tr>
<td>5.</td>
<td>Mean Comparisons Between Experimental and Control Pre- Versus Posttests for the ASSET</td>
<td>44</td>
</tr>
<tr>
<td>6.</td>
<td>Mean Comparisons Between Experimental and Control Pre- Versus Posttests for the PARI and CBCL (Adolescent)</td>
<td>45</td>
</tr>
<tr>
<td>7.</td>
<td>Mean Comparisons Between Experimental and Control on Posttests (Adolescent)</td>
<td>48</td>
</tr>
<tr>
<td>8.</td>
<td>Mean Comparisons Between Experimental Pre- and Posttests on the PARI and CBCL (Parent Report)</td>
<td>52</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure                                      Page
1.    ASSET Skills Change: Pre- versus Posttest......46
ABSTRACT

The Effects of an Adolescent Social Skills Training Program on Adolescent Sex Offenders

by

Roger B. Graves, Master of Science
Utah State University, 1990

Major Professor: Dr. D. Kim Openshaw
Department: Family and Human Development

The purpose of this research was to assess the efficacy of a 9-week social skills training (SST) program for improving the social competence of adolescent sex offenders. The study was conducted at an outpatient treatment center, Intermountain Sexual Abuse Treatment Center, in Salt Lake City, Utah. A pretest-posttest control group design was utilized and comparisons were made on a variety of self- and parent-report measures to examine treatment effects. The results indicate that the experimental group was able to acquire the specific SST behaviors to a far greater degree than expected by chance. However, evidence of increased social competence outside the training context is somewhat more equivocal. Implications for treatment programs and further research needs are discussed. (94 pages)
DEVELOPMENT OF THE PROBLEM

Introduction

The treatment of the adolescent sexual offender is a complex process often involving extensive therapeutic intervention. Among the most common forms of intervention available for treating the sexual offender are group and individual therapy (Margolin, 1984; Quinsey, 1977; Smets & Cebula, 1987). Of the preferred therapeutic interventions cognitive-behavioral techniques, including covert sensitization (Becker, Kaplan, & Kavoussi, in press), confrontation of dysfunctional attitudes (Kahn & Lafond, 1988), and aversion therapy (Quinsey, 1977), are the most common. In addition, various other theoretical approaches, such as psychoanalytic, family systems and others, are currently in practice (Lanyon, 1986).

Although recent clinical descriptions have characterized the sexual offender as having deficiency social skills (Cohen, Seghorn, & Calmas, 1969; Deisher, Wenet, Paperny, Clark, & Fehrenbach, 1982; Fehrenbach, Smith, Monastersky, & Deisher, 1986; Groth, 1977; Overholser & Beck, 1986; Segal & Marshall 1985), there has been only limited research investigating the relationship between this behavioral deficit and sexual offenses. Also, there has been little empirical investigation concerning the impact of social skills training procedures as part of a comprehensive program for treating these individuals.

Quinsey (1977) and, more recently, Fehrenbach et
al. (1986) and Lanyon (1986), have reported the need for research to determine the relationship between a lack of social skills and sexual offending, including the potential value of social skills training in increasing social competence and reducing recidivism rates. Indeed, many researchers and practitioners alike, such as Lanyon (1986), Kahn and Lafond (1988), and others, are so convinced of the importance of teaching social skills to sex offenders that they recommend the implementation of social skills training even with the dearth of empirical research supporting any effectiveness in doing so. While minimal extant research has addressed the relationship between social skills training and deviant sexual behavior, this has not been the case for various other behaviorally disordered populations.

Social skills training programs have previously been utilized as valuable adjuncts in the treatment of a variety of mental disorders (Gutride, Goldstein & Hunter, 1973) and recently have been found useful in modifying behaviorally disordered and aggressive adolescents (Elder, Edelstein, & Narick, 1979; Schneider & Byrne, 1987; Serna, Schumaker, Hazel, & Sheldon, 1986). The form of social skills enhancement has varied from inclusion of appropriate social interaction techniques developed to address a specific deficit observed in an individual or group of individuals and included as a part of an overall therapy program to having subjects attend a comprehensive social skills program.
Hazel, Schumaker, Sherman, and Sheldon-Wildgen (1981) have developed a role-playing social skills development program specifically for adolescents called Adolescent Social Skills Effectiveness Training (ASSET). This program focuses on eight social skills via video taped instructions and role-playing. While a review of the literature indicates that this specific program has not been used in a research study with adolescent sex offenders to date, it has been used with learning disabled adolescents (Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1982), delinquents (Manos, 1985; Serna, et al. 1986), lonely adolescents (Adams, Openshaw, Bennion, Mills, & Noble, 1988), and other behavioral disordered groups of adolescents.

This research proposal presents hypotheses suggesting the value of a specific group social skills enhancement program in treating adolescent sex offenders, a rationale for the use of ASSET as the skill-building program and the methodology to obtain an acceptable degree of reliability and internal/external validity for a first-time study of this important topic.

Hypotheses

There is a conspicuous lack of empirical research addressing the utility of social skills training with adolescent sex offenders specifically and for development programs, such as the ASSET program, in general (Davis & Leitenberg, 1987; Lanyon, 1986; Quinsey, 1977; Segal & Marshall, 1985). Does participation in a social skills
program provide a useful adjunct to contemporary therapeutic techniques? And if so, what characteristic of the adolescent male offender is modified? This study proposes to test the following hypotheses:

1. Adolescent sex offenders who participate in a social skills development program, when compared to a corresponding control group, will exhibit significantly greater gains on specific social skills as indicated on self-report scales.

2a. The experimental group will exhibit significantly greater gains, when compared to the control group, in positive and appropriate interpersonal communication as indicated on self-report scales.

2b. The experimental group will exhibit significantly greater gains, when compared to the control group, in positive and appropriate interpersonal communication as indicated on ratings by parents.

3a. The experimental group, when compared to the control group, will exhibit significantly less interpersonal conflict between self and significant others (e.g., peers, parents, and teachers) as indicated on self-report scales.

3b. The experimental group, when compared to the control group, will exhibit significantly less interpersonal conflict between self and significant others (e.g. peers, parents, and teachers) as indicated on ratings by parents.

4. The experimental group, when compared to the control group, will exhibit significantly less anxiety and
greater popularity in interpersonal relationships with the same age and same and opposite sex peers as indicated on self-report scales.

Definitions

Achenbach Child Behavior Checklist - A behavior-rating scale that is available in four forms (parent, teacher, direct observation, and self-report) and in three age ranges (4-5, 6-11, 12-16), designed to assess in a standardized format the behavior problems and social competencies of children.

The three forms of the checklist utilized in this study are the parent form, teacher form, and the youth self-report form. The parent and teacher forms provide five scaled scores: social competence (activities, social, school) and behavioral problems (internalizing, externalizing). The self-report form provides two scales: social competence and behavioral problems.

Adolescent - An individual in the period of development from puberty to maturity who, for this study, is designated from ages 12 to 19 years. Normally, this period is marked by the appearance of secondary sexual characteristics. In addition, this time is associated with the development of a sense of identity and self-worth, including adaptation to an altered body image, improved intellectual ability, demands for mature behavior, and preparation for the assumption of adult roles (Mills, 1988).

ASSET - A 9-week, role-play social skills training
program video taped for adolescents. This program focuses upon eight specific social skills (giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, negotiation, following instructions, conversation, and problem-solving skill) (Hazel et al., 1981).

Parent-Adolescent Relationship Inventory (PARI) - A multidimensional self-report inventory of parent-adolescent relations (Robin, Koepke, & Mayor 1984). The inventory consists of two subscales, one each for parents and their adolescent children, and samples 13 major domains.

Sex Offender - An individual (in this case a male adolescent) who has been legally convicted and/or is in treatment (individual and/or group therapy) for sexual behavior considered illegal or inappropriate and deviant (e.g., sexual activity with a nonconsenting partner or with an individual significantly--3 to 5 years--younger than the adolescent).

Social Competence - An evaluative term that indicates an individual has adequately performed a task (involving the utilization of a social skill or skills). These evaluative judgments are based upon the opinions of significant others, such as parents, peers, and teachers. Gresham (1986) has conceptualized social competence as being comprised of two components: (a) adaptive behavior and (b) social skills. Adaptive behaviors include independent functioning skills, physical development, and academic competencies. Social
skills include interpersonal behavior (e.g., accepting authority, conversation skills, cooperative and play behaviors), self-related behaviors (e.g., expressing feelings, ethical behavior, and attitude towards self), and task behaviors (e.g., attending behavior, following directions, and independent work).

For the limited purpose of this study, social competence is defined as possessing a repertoire of appropriate interpersonal social skill behaviors (skill competence) and exhibiting the ability to perform them at acceptable levels (performance competence) within the contexts examined in this study. Adaptative behaviors are implied in the performance facet of this definition but not specifically addressed here.

Social Skills - Behaviors that, within a given social interaction, facilitate a desired outcome for the participants. These outcomes may be peer acceptance or popularity, judgments of social skill by significant others, or other social behaviors known to correlate with peer acceptance and judgments of significant others (see Gresham's 1986 social validity definition). Eight specific social skills, as defined by Hazel et al. (1981), are utilized here. See the ASSET definition for descriptions.
Profile of the Adolescent Sex Offender

Until recently, adolescent sexual offenses have typically been characterized as sexual experimentation, curiosity, or even normal expression of aggression in maturing adolescent males. Juvenile courts, in an effort to avoid stigmatizing the adolescent, have often taken the position that these offenses are somehow less serious than those committed by adult offenders. Possibly due to the social sensitivity of addressing the offender and offense characteristics of adolescent perpetrators, the vast majority of research and offender descriptions have been conducted around adult offenders. Only within the last decade has serious consideration of the adolescent perpetrator been evaluated, and the majority of that has been within the last 5 years.

Davis and Leitenberg (1987) reported that recent arrest statistics and victim surveys indicate that roughly 20% of all rapes and from 30% to 50% of all cases of child sexual abuse are perpetrated by adolescent sex offenders. Fehrenbach et al. (1986), in a review of the Uniform Crime Reports during the late 1970s, found that adolescents were responsible for more than 30% of all rapes. Ageton (1983) suggested that less conservative estimates of adolescent sexual offending range from 1% to 10% of the general population of adolescent males. Surveys and arrest
statistics such as these typically do not include those adolescents who offend and are not arrested, noncontact or "hands-off" offenses such as voyeurism and exhibitionism, and rarely reported date rape.

Nicholas A. Groth (1977) conducted one of the first studies attempting to describe the adolescent sex offender and his "prey." In his Massachusetts sample of convicted adolescent rapists and violent child molesters, Groth found that the general profile of the adolescent offender is of a male about 16 years of age, white, of average intelligence, who generally carries out his crime alone.

The Victim of the Adolescent Sex Offender

According to Groth (1977), the victim is typically a white female, about a year younger than he, and it is equally likely that the victim and perpetrator know each other, at least casually. Davis and Leitenberg (1987) and Deisher et al. (1982), generally agree with Groth (1977); however, they also report that males are victims in up to 20% of the offenses and that the victim's age can range from young toddler to adult.

Generally, the victim knows his or her offender. Groth (1977) reports that from 5 to 10% of the victims are related to the perpetrator, approximately 17% are friends, up to 30% are acquaintances and up to 60% are strangers. More recent studies cite findings that relatives are victims in as many as 40% of the offenses, friends and acquaintances as often
as 51%, and strangers as little as 17% of the time (Davis & Leitenberg, 1987; Deisher et al., 1982).

**Context and Contributing Factors in Adolescent Sexual Offending**

The crime is generally committed indoors, most frequently in the victim's home, and a weapon is used in only about one third of the cases. In addition, alcohol and/or drugs are rarely factors in the commission of the offense (Groth, 1977; Ageton, 1983). Davis and Leitenberg (1987) report that use of a weapon in the offense is rare when the victim is significantly younger than the perpetrator; however, weapons become more common in offenses involving peer age or older victims, with knives being the most common instrument. Various levels of coercion are common in many offenses that do not involve the use of a weapon. Physical force may be used in up to 35% of the offenses, verbal threat in up to 63%, and intimidation or bribery in up to 57% of the offenses (Davis & Leitenberg, 1987; Deisher et al., 1982; Fehrenbach et al., 1986; Groth, 1977). Finally, and perhaps most disturbingly, the adolescent is likely to have a history of previous offenses in almost 75% of the instances (Davis & Leitenberg, 1987).

Inappropriate sexual acting-out is often not the only difficulty these adolescents are experiencing. They are often characterized as having low self-esteem (Davis & Leitenberg, 1987; Deisher et al., 1982), unstable or poor family environment (Davis & Leitenberg, 1987; Fehrenbach
et al., 1986), difficulties with nonsexual delinquent behavior (Fehrenbach et al., 1986; Shoor, Speed, & Bartelt, 1966), been victims themselves of sexual and/or other physical abuse (Davis & Leitenberg, 1987; Longo, 1982) and a lack of appropriate social skills and/or social competence (Cohen et al., 1969; Davis & Leitenberg, 1987; Deisher et al., 1982; Fehrenbach et al., 1986; Groth, 1977; Quinsey, 1977; Shoor et al., 1966).

Minnesota Multiphasic Personality Inventory (MMPI) personality characteristics, based on MMPI research data, have been described for both adult (Levin & Stava, 1987, a review of the research) and adolescent (Smith, Monastersky, & Deisher, 1987) sex offenders. However, while tentative findings for adult offenders indicate that men who engage in rape or child molestation are often guilt-ridden individuals who typically inhibit aggression (Levin & Stava, 1987), early personality descriptions for adolescent offenders are less clear. Smith et al. (1987) found, in a study of 262 adolescent offenders who had committed documented offenses, that juvenile sex offenders are a relatively heterogeneous group with a wide variety of personality traits and levels of adaptation. These findings may be partially due to the fact that subjects in this study were generally less violent (less than 1% were incarcerated at the time of the evaluation) and, hence, not entirely representative of the adolescent sex offender population. Finally, although these findings do not support a "typical" adolescent perpetrator
profile, many dysfunctional patterns are exhibited, such as social immaturity and isolation from peers, impulsivity, and overtly emotional disturbance.

Table 1 compiles the available data describing the typology of adolescent sex offenses, while Table 2 describes victim typology. Tables 3 and 4 describe the demographic and personal/social characteristics of adolescent sex offenders, and their proportions as represented in the literature.
Table 1

Research and Survey Supported Typology of Adolescent Sex Offenses

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percent</th>
<th>Source/Study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Offense:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibitionism</td>
<td>10-38%</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Obscene phone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>call</td>
<td>2-7%</td>
<td>2,3</td>
</tr>
<tr>
<td>Voyeurism</td>
<td>0-7%</td>
<td>3,4</td>
</tr>
<tr>
<td><strong>Physical &quot;hands on&quot; contact</strong></td>
<td>63-80%</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Drugs/alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>during offense</td>
<td>6-11%</td>
<td>2,4,5</td>
</tr>
<tr>
<td><strong>Coercive Tactics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimidation</td>
<td>28-63%</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Weapon/force</td>
<td>4-36%</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Noncoercive</td>
<td>7-57%</td>
<td>1,2,3,4</td>
</tr>
</tbody>
</table>

Note. (1) Ageton, 1983; (2) Davis and Leitenberg, 1987; (3) Deisher et al., 1982; (4) Fehrenbach et al., 1986; (5) Groth, 1977.
Table 2
Research and Survey Supported Typology for Victims of Adolescent Sex Offenses

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percent</th>
<th>Source/Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child</td>
<td>Peer/Adult</td>
</tr>
<tr>
<td>Victim's Sex:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>69-89%</td>
<td>80-89%</td>
</tr>
<tr>
<td>Male</td>
<td>11-31%</td>
<td>9-18%</td>
</tr>
<tr>
<td>Relationship to Victim:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relatives</td>
<td>33-75%</td>
<td>3-33%</td>
</tr>
<tr>
<td>Friend</td>
<td>26-52%</td>
<td>16%</td>
</tr>
<tr>
<td>Not related</td>
<td>9-25%</td>
<td>45-67%</td>
</tr>
</tbody>
</table>

Note. (1) Davis and Leitenberg, 1987; (2) Deisher et al., 1982; (3) Fehrenbach et al., 1986; (4) Groth, 1977.
### Table 3
Demographics Characteristics of the Adolescent Sex Offender

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage</th>
<th>Source/Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean IQ:</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Sig. below 100</td>
<td>Peer/younger victim</td>
<td>5</td>
</tr>
<tr>
<td>Average</td>
<td>Older victim/no sig dif.</td>
<td>2,5,7</td>
</tr>
<tr>
<td>Sig. above 100</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>SES Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>2-3%</td>
<td>7</td>
</tr>
<tr>
<td>Middle/working</td>
<td>60-72%</td>
<td>1,7</td>
</tr>
<tr>
<td>Low</td>
<td>30-35%</td>
<td>1,7</td>
</tr>
<tr>
<td>Criminal Offense History:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonsexual</td>
<td>44-63%</td>
<td>2,4,7</td>
</tr>
<tr>
<td>Sexual</td>
<td>50-74%</td>
<td>2,4,5</td>
</tr>
<tr>
<td>Physical/sexual abuse victim</td>
<td>35-75%</td>
<td>2,3,4,6</td>
</tr>
<tr>
<td>Intrafamilial difficulties</td>
<td>up to 80%</td>
<td>2,3,4,7</td>
</tr>
</tbody>
</table>

Note. * No proportional figures for this data. (1) Ageton, 1983; (2) Davis and Leitenberg, 1987; (3) Deisher et al., 1982; (4) Fehrenbach et al., 1986; (5) Groth, 1977; (6) Longo, 1982; (7) Shoor et al., 1966.
Table 4

Personality and Social Characteristics of the Adolescent Sex Offender

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage</th>
<th>Source/Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typology:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loner</td>
<td>32-79%</td>
<td>4,5,6</td>
</tr>
<tr>
<td>Low self-esteem</td>
<td>no % given</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Poor academics</td>
<td>32-78%</td>
<td>2,4,5,6</td>
</tr>
<tr>
<td>Social skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>deficit</td>
<td>31-99%</td>
<td>1,3,4,5,6,7</td>
</tr>
</tbody>
</table>

Note. * No proportional figures for this data. (1) Cohen et al., 1969; (2) Davis and Leitenberg, 1987; (3) Deisher et al., 1982; (4) Fehrenbach et al., 1986; (5) Groth, 1977; (6) Shoor et al., 1966; (7) Smith et al., 1987.
Development of the Adolescent Sex Offender

Adolescence is a period of transition, a time of change from one phase of life to another, a period of emotional, intellectual, and physical growth preparatory to assuming adult roles (Kimmel & Weiner, 1985). The adolescent years of development are becoming increasingly recognized as critical and perhaps as important as infancy in determining what happens in later life. Coleman (1980) notes:

For many years it has been widely believed that what happens in infancy represents the foundation stone for later personality development, and that many of the effects of the experiences of these early years are irreversible. However, it is increasingly recognized that experiences during other critical phases of development, especially during adolescence, have an equally important bearing on what happens in later life. This realization, that adjustment in adolescence has critical implications for adult development, as well as for the health of society in general, has led to a new surge of interest in the adolescent years. (p. 1)

Because adolescence, by definition, is a developmental and transitional period, a time of change and growth, it may be a distinctly advantageous period in which to intervene in maladaptive behaviors, such as sexual offending, to reduce the likelihood of a continuation of the problem into adulthood. In addition, much of what occurs during the adolescent period appears to set the stage for later adult adjustment. Kimmel & Weiner (1985) have stated that:

... people remain basically the same in how they think, handle interpersonal relationships, and are perceived by others. For better or worse, adults tend to display many of the same general personality characteristics and the same relative level of adjustment they did as adolescents. (p. 449)
The authors go on to note that:

Those [adolescents] who appear disturbed are likely to be disturbed and remain disturbed unless [italics added] they receive adequate treatment. Furthermore, the severity of psychopathology in adolescents who receive treatment is consistently found to predict their level of adjustment as adults. (p. 451)

Symonds and Jensen (1961), in a study investigating the development of the individual from adolescence to adulthood, also note that general personality characteristics, such as aggression, if seen in the adolescent tend to be similarly seen in the adult.

The implications from the above authors can be frightening when one considers them in light of adolescent sexual offenders. They support descriptions of adult sex offenders as individuals who developed their maladaptive behavior as adolescents and carried it with them into adulthood.

Knopp (1982), in examining several studies on the life history data of sexual offenders, cites evidence that not only can offending behavior in the adolescent be carried over to adulthood, but also "that many recidivists manifest a pattern of escalation" (p. 17). Examples include exhibitionists and peepers coming back as rapists and teens referred for "hands-off" offenses, such as obscene phone calls, later committing "hands-on" offenses.

It appears, then, that the earlier the intervention the more valuable the results for both the public and offender. As Knopp (1982) notes, "From the perspective of community safety, the value of early intervention by skilled treatment
providers into sexually abusive adolescent behavior seems indisputable" (p. 26). Early successful intervention can prevent detrimental psychological effects related to long-term maladaptive behavior such as sexual offending, in addition to the increasing possibility of years of incarceration if arrested for this behavior as an adult. Finally, since intervention in the adolescent is associated with a lower recidivism rate than with adult offenders (Davis & Leitenberg, 1987) treatment may be more successful while the offender is in the adolescent period of development.

**Social Skills Deficit and the Sexual Offender**

Numerous descriptions of adult and adolescent sex offenders have been published that characterize these individuals as exhibiting a notable deficit in social competence, specifically social skills. Unfortunately, these studies typically are based upon anecdotal evidence or case studies. A review of the literature has revealed little empirical support for such a characterization. Davis and Leitenberg (1987) report that, indeed, no studies have yet been conducted that compare adolescent sex offenders with nonoffenders across a battery of measures for social skills.

Cohen et al. (1969) conducted a study to investigate the use of a broad medicolegal descriptor (sex offenders as deficient in social skills) as a parameter in research,
hypothesizing that it is clinically and methodologically unsound. Sixty-five inpatient sex offenders were classified on the basis of their offense: Of the rapists, 10 were classified as rapist-displaced aggression, 4 were rapist-compensatory, 4 rapist-sex aggression defusion, and 9 rapist-impulse. Of the 38 committed for sexual acts against children, 23 were classified as pedophile-fixated, 8 were pedophile-regressed, and 7 were pedophile-aggressive. Cohen and his colleagues hypothesized that social skills deficit is not appropriate as a general characterization and is dependent upon several key factors.

Cohen et al, (1969) specifically predicted that because the rapist-displaced-aggression type and the pedophile-regressed had demonstrated higher levels of social adaptation and since the sexual offenses appeared reactive (and were experienced by the patient as dystonic), it was expected that they would demonstrate the highest level of social skills among the sex offender group. Similarly, because the pedophile-fixated type, the pedophile-aggressive type, and the rapist-impulse type appear to be fixated at early levels of object relationships and the sexual offenses typically represent characteristic ways of dealing with the social world (hence, probably experienced as syntonic), it followed that they would demonstrate the fewest social skills and least social competence.

A sociometric questionnaire was completed by the subjects and then analyzed. The findings generally
supported the hypotheses:

The rapist-displaced-aggression group is clearly functioning at the highest level of social effectiveness as compared with all other sexual offenders. And, also in accord with the first prediction, the pedophile-regressed group follows closely behind on all sociometric scales. With respect to the second prediction, the pedophile-aggressive group consistently shows ineffective social functioning as expected, but the findings for the rapist-impulse group and the pedophile-fixated group are more equivocal. (p. 254)

The rapist-impulse and pedophile groups demonstrated somewhat more social adaptability than expected. One possibility for these findings may be that in these groups a lack of appropriate social skills in the individuals' behavioral repertoire is less a problem than the competence to access and utilize the skills available. A second possibility is that the closed social society of the inpatient treatment unit and the fact that the patients had been together for from 6 months to 5 years suggests that subjects developed a socially distinct and "safe" subculture, which tended to artificially inflate sociometric scores.

Segal and Marshall (1985) conducted a similar study to compare the social skills of incarcerated sex offenders (rapists and child molesters) with non-sex-offender inmates and nonincarcerated males of low and high socioeconomic status. Hence, five distinct groups were formed, each containing 20 subjects. A variety of measures were employed to aid in the assessment of heterosexual social skills: behavioral assessment, cognitive assessment questionnaires,
and self-reports. The multidimensional approach to measuring the heterosexual skills provided effective protection from confounding variables.

The researchers analyzed their data and found that, as a group, the inmates generally rated themselves and were seen as less assertive, more anxious, and less skilled in heterosocial interactions. Of these, the child molesters presented a clearer profile of heterosocial skills inadequacy than did the rapists. In fact, the child molesters were usually the lowest scoring group on all behavioral and cognitive measures of social skills, including self-reports where they rated themselves as less skilled and more anxious during a typical heterosocial interaction and poorer in situations involving positive assertion or accepting praise. Rapists, on the other hand, were seen as more similar to other low socioeconomic males in the study.

Some possible alternative explanations for the findings concerning the child molesters could be the low social status of these inmates in the prison system. Further, in the case of the rapist group, it is difficult to generalize to what extent the apparent presence of appropriate social skills will be manifested in a less controlled (less safe) environment. Social competence may again be the problem, especially when the rapist is involved in social interaction that is more difficult to control by appropriate social means. Regardless of the explanation, both studies
appear generally consistent with descriptions of child molesters who display inadequate social skills, while the findings for the rapist samples may be more equivocal.

Unfortunately, due to the dearth of research on social skills and the adolescent offender, much of this review has had to consider the adult offender. Admittedly, the extent to which the data be generalized or extended to describe the adolescent offender is somewhat limited. However, considering developmental implications noted in earlier sections and correlations between adolescent and adult social skills deficits, some assumptions may be tentatively inferred: mainly, that it is reasonable to suspect that the characteristics and patterns described, if left untreated, continue to be associated with offending behavior from a period beginning in childhood or adolescence and continuing into adulthood.

**ASSET: Adolescent Social Skills Effectiveness Training**

As mentioned earlier, social skills training in adolescents has been approached from a variety of perspectives, from individualized programs incorporated as a part of an overall therapy program to the utilization of predeveloped programs with groups of individuals. The ASSET program (Hazel et al., 1981) is a group social skills training program that incorporates a rationale for learning each of eight specific skills, modeling of those skills, and behavioral rehearsal as part of an overall program to
increase social competence. Hazel et al. (1981) reports that this program was specifically developed for and targeted at juvenile delinquents and has been found particularly useful for "teenagers in serious trouble in the home, school and community . . . [and those labeled as having] disciplinary problems . . . disruptive or as troublemakers" (p. 5).

Hazel et al.'s ASSET program (1981) targets very general social skills that have been broken down into eight measurable behavioral components. These social skills and their definitions include:

1. **Giving positive feedback** contains many of the basic components of other social skills; hence, it is taught first. This skill teaches the adolescent how to give thanks and compliment another. The use of this skill provides immediate reinforcement since the complimented person is more likely to treat the person giving the feedback positively and seek out his or her company.

2. **Giving negative feedback** teaches the adolescent to give negative feedback in an appropriate, nonthreatening manner. This skill is taught early in the program because group members are required to give each other corrective feedback throughout the group sessions. Giving negative feedback includes expressing one's own perception of a situation, asking for the other person's perception, and suggesting changes. When implemented correctly, the other person is more likely to change.
3. **Accepting negative feedback** teaches skills enabling the adolescent to listen to criticism without getting angry. This skill helps the adolescent to fulfill the role of receiver in the negative feedback exchange. Teens who demonstrate that they can accept negative feedback without getting angry or walking away are more likely to present a mature image to adults and increase the likelihood that they will be listened to in the future.

4. **Resisting peer pressure** teaches adolescents to say no to peers in situations in which they do not want to engage in delinquent behavior but feel pressured to by friends. Several simple steps are taught to assist the teen to say no by giving appropriate reasons not to engage in an activity and suggesting possible alternatives.

5. **Problem solving** teaches a practical method to find solutions to difficulties via brainstorming possible solutions, evaluate the probable outcomes from each possibility, find the desirable results, and choose the solution with those results.

6. **Negotiation** is a joint problem-solving skill involving at least two people. This skill enables adolescents to solve interpersonal conflicts in calm, appropriate ways without resorting to aggressive behavior.

7. **Following instructions** teaches the adolescent to acknowledge and follow instructions. Ability to understand and accurately follow instructions decreases the likelihood of conflict with authority figures.
8. Conversation teaches skills that enable adolescents to introduce themselves, start and maintain a conversation, and ask questions. Being able to converse more comfortably and proficiently can make adolescents more comfortable in social situations.

The ASSET program is designed to be presented over nine 1 1/2 to 2-hour sessions, generally one session a week (one week for each skill and a comprehensive review). Each skill is presented by a group leader with the aid of a videotaped role-play explanation and model.

The ASSET social skills are presented in a comprehensive, four-part format. **Description** is the process of defining terms, describing the skill, and outlining when and why it is used. **Modeling** occurs when the group participants observe scenarios of the skills modeled on videotape, with both good and poor models provided. After each scenario, the performances are critiqued by the group and use of the particular skill evaluated as to what areas could be improved. The group leader may provide opportunity for further modeling. **Behavioral rehearsal** is accomplished with predesigned skill sheets that describe a scenario to which the group members respond. The rehearsal is performed in front of the whole group to allow feedback on the performance by the group. Again, the leader may provide additional opportunity for behavioral rehearsal if necessary. Finally, **application procedures** consists of what is called the "home note," a technique requiring the
adolescent to practice the skills learned in the home environment. The home note includes a message to the parent explaining the skill to be practiced, as well as space for evaluation of the performance.

**ASSET Training in Parent-Adolescent Dyads**

Recently Noble (1988) and Mills (1988) investigated the value of using the ASSET program to enhance parent-adolescent interpersonal relationships. In these studies, both the adolescents and their parents were trained in the ASSET skills; the parents were trained in skills designed to reciprocate of those taught their adolescents children.

In this pilot study, the researchers hypothesized that ASSET training would result in significant gains in the performance of (a) the specific ASSET training skills (i.e., giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, problem solving, negotiation, following instructions, and conversation), (b) interpersonal communications (within the parent-adolescent dyad), and (c) resolution of interpersonal problems (within the parent-adolescent dyad). The study found support for hypothesis (a); both mother and father exhibited significant gains on all indicated skills and adolescents exhibited gains on 7 of the 8, following instructions being the only exception. However, for hypotheses (b) and (c) there were no significant increases in self-reports improvement for either the experimental or
control group adolescents. On the other hand, there were significant increases for the treatment group parents. As Noble (1988) and Mills (1988) observe, this may suggest that the parents were better able to use the social skills gained to improve their perceptions of interpersonal communications and problem-solving skills with their adolescents. Perhaps this increase is due to a greater level of parental maturity. Or it could be that since participation of the subjects was initiated by the parents, there may have been resistance of effects because the adolescents felt that they had been coerced into participation. Finally, Nobel (1988) and Mills (1988) note that the adolescents may require a greater period of time to internalize the skills and, hence, a delayed "sleeper" effect may have been realized.

Although this study is not going to apply the reciprocal skills that parents learned in the above research, the parent-adolescent dyad comparisons of self-reported and actual behavioral change will be made. This is an important requirement of research that attempts behavioral change because self-reported behavioral change is not always associated with actual behavioral change.
METHODOLOGY

Population

The population targeted for this study is adolescent males who have been engaging in deviant (illegal and/or inappropriate) sexual behavior with consenting and/or nonconsenting, age appropriate and/or age inappropriate males and/or females. This population includes adolescent offenders from age 12 up to and including 19 years of age. Individuals in this population need not be diagnosed as having a DSM-III-R (American Psychiatric Association, 1987) paraphilia (e.g., pedophilia, exhibitionism, voyeurism, frotteurism, sexual masochism) since diagnoses are typically not made if the individual is under 16 years of age. Finally, since the subjects in this study are also engaged in individual and/or group therapy related to their sexual offense, the generalized population also encompasses only those individuals who are similarly involved in individual and/or group therapy sessions.

Sample

The sample groups for the study consisted of adolescent males referred to Intermountain Sexual Abuse and Treatment Center of Utah (ISAT), Salt Lake City, Utah, for sexual offenses. The subjects consisted of both Utah Division of Family Services referrals and private referrals. Most, if not all of the subjects, were court-ordered to attend various ISAT treatment programs.
Those individuals who participated in the research were selected on a volunteer basis. Letters explaining the study were sent to the adolescents and parents or legal guardians of the adolescent offenders. Each letter contained a description of the study, why it was being undertaken, and its importance, including the potential value to the adolescent offenders who participated in the study. Only those parents and adolescent offenders who expressed a willingness to participate in the full 9-week program, including a pre- and posttesting session, were selected. The therapist treating the offenders, at their discretion, had the option to restrict participation in the study; however, none did so.

Those offenders and their parents who agreed to participate in the study then had the ASSET sessions written into their treatment plan. At this point, they were required to fulfill the requirements of the study as set forth in a contract signed by the adolescent, parents, and therapist.

The sample group was not demographically representative on the basis of race or religious affiliation outside the state of Utah. It was expected that the particularities of the Utah population would result in the sample being disproportionately white and religiously associated with The Church of Jesus Christ of Latter-day Saints (Mormons).

Approval was granted by Dr. Carlos Roby, Ph.D. (Executive Director, ISAT), to carry out the study with
agency clients. Final written approval was conditional upon acceptance by the Utah State University's Institutional Review Board and review with acceptance by ISAT's executive director and the director of the adolescent treatment program. All criteria were met by the scheduled time to begin the study.

Approximately 40 subjects (nearly all the adolescents in the program) participated in the study. Existing adolescent groups were assigned as either experimental or control. For the reasons noted below, individual subjects were not randomly assigned into newly formed experimental or control groups.

Experimental Group

Experimental group subjects were scheduled to participate in a series of nine 1 1/2-hour sessions for 9 consecutive weeks. Each session was offered once per week during the regular group time. The day and time of the sessions was consistent from week to week. For inclusion into the experimental group and for data analysis purposes, three specific criteria had to be met: (1) each subject completed all pretest materials (for the specific experimental group in which it was required), (2) each subject completed all posttest materials (both experimental groups), and (3) each subject participated in a minimum of 6 of the 9 sessions.
Control Group

A nontreatment control group was employed for comparison with the experimental group to determine treatment effect. This group was expected to be approximately equal in size to the experimental group. If analysis of the research results supported the previously indicated hypothesis, the control group was offered the opportunity to attend the ASSET program without pre- and posttesting. Criteria for inclusion in the control group and for data analysis purposes included (1) completion of all pretest materials (for the specific control group in which it was required) and (2) completion of all posttest materials (both control groups).

Pretests

Pretesting took place during regular group meetings 1 week prior to the scheduled beginning of the social skills training program for all experimental and control group participants. Competence for the specific social skills was assessed utilizing the ASSET skills test and training checklist. The Achenbach Child Behavior Checklist (self-report form), and the Parent-Adolescent Relationship Inventory (PARI) were also administered. A snack and short break were allowed during this long testing period.

Approximately 10 days prior to the beginning of the training program, all parents were mailed a packet containing the pretest training checklist for the ASSET
program, the respective parent or adolescent form of the Parent-Adolescent Relationship Inventory (PARI), and the Achenbach Child Behavior Checklist (parent form). A follow-up letter and phone calls were made to encourage parents to return the test packets in the self-addressed, stamped envelope provided within 2 weeks. All parent reports utilized in the study were obtained within 30 days of the original mailing.

Training

The training sessions followed the format outlined by Hazel et al. (1981) in the ASSET manual. All eight of the social skills were taught at the rate of one skill each week for 8 weeks plus a review at week 9. The weekly order of presentation was (1) giving positive feedback, (2) giving negative feedback, (3) accepting negative feedback, (4) resisting peer pressure, (5) problem solving, (6) negotiation, (7) following instructions, (8) conversation, and (9) final review. Homework assignments, designed to provide participants with additional practice in the home environment, followed the first eight skill sessions. It was anticipated that the additional training would assist the newly acquired skills to be internalized and generalized.

Posttests

During the regular group session that followed 1 week after the end of ASSET training, participants in the study
were again tested using the same pretest instruments and format described in the pretest section above. Parents were mailed posttest packets approximately 3 days prior to the end of the social skills training program. Again, parents were encouraged to return the material promptly through follow-up letters and phone calls. All of the parent-reports used in the study were received within 45 days of the original mailing.

Instrumentation

Estimates of reliability and validity of the ASSET pretest or posttest instruments are generally not available from the early studies with delinquents and learning disabled populations. However, the little work that has been done indicates that the ASSET program was capable of improving the subjects' scores for the targeted social skills and that inter-rater reliability can be established between trained raters (Adams et al., 1988).

The Parent-Adolescent Relationship Inventory (PARI), (Robin, Koepke, & Mayor, 1984) has had internal consistency validated although it has not been in use long enough to establish predictive validity. Nobel (1988) and Mills (1988) using the PARI as an adjunct to the ASSET pre- and posttests, report estimates of internal consistency derived from the Communication and Problem Solving subscales ranging from .76 to .99 (Cronbach alpha), all significant beyond p < .001.

The Achenbach Child Behavior Checklist (CBCL) was
designed to address child behavioral problems empirically (Achenbach & Edelbrock, 1987a). Mitchell (1985) notes that the CBCL is one of the best checklists currently available. The parent report form (Achenbach & Edelbrock, 1987b) has 5-scale scores with stability over 3 months reported at .84 for behavior problems and .97 for social competencies. Test-retest reliability reported at .89 for mothers. The youth self-report is designed to obtain self-ratings on most of the CBCL social competencies and behavior problems. The authors report good stability for these ratings over a 6-month period (Mitchell, 1985).
DESIGN

The research design utilized in this study was the Pretest-Posttest Control Group Design. Campbell and Stanley (1963) reported that this design allows for direct comparison and analysis of pre- and posttest results between the experimental and control groups while at the same time controlling for all major sources of internal invalidity (e.g., effects of history, maturation, testing, instrumentation, regression, selection, mortality, and interaction of selection and maturation). However, because both the experimental and control groups are pretested, sources of external validity (i.e., the reactive or interactive effects of testing) cannot be accounted for. Since this was a pilot study, such a compromise was deemed acceptable.

The experimental design was as follows:

<table>
<thead>
<tr>
<th>Number of Subjects</th>
<th>Pretest</th>
<th>Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp. 18</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ctr. 18</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

X indicates that the group subjects participated in this procedure.

The number of participants expected to participate in the study was 40. However, due to a number of the control group subjects terminating from treatment for various reasons (completing their program goals or being incarcerated, for example) only 10 participants from the
control group met inclusion requirements. This unfortunate occurrence was due to the failure to incorporate a provision into their treatment contract stipulating that they remain in the ISAT adolescent offender program until completion of the study. Only two of the experimental group members failed to meet inclusion criteria because they were required to remain in treatment until the conclusion of the ASSET study.

A similar problem occurred with the parent reports. For the experimental group, only 11 parents met the requirements for inclusion in the analysis. Furthermore, only 5 control group parents met the requirements, too few to warrant analysis.

**Analysis**

After all testing had been completed and scored, the data was entered on hard-copy forms that organized the data according to sample group, pretest scores, posttest scores, and several demographic variables. Data specific to the research hypotheses were then entered into the computer program: Number Cruncher Statistical System (NCSS) version 5.1 (Hintze, 1987).

Specific tests of significance were designed to address the hypotheses being examined, including selected t-tests comparisons between pretests, posttests, and pretest to posttest scores. NCSS automatically provides an F-ratio to test the assumption that the population variances for the samples being compared are equal (homoscedasticity).
Equality of variances was rejected if the F-ratio probability level was less than .1. This is a conservative value that limits the possibility of type II error, that is, accepting equality of variance when they are actually not equal. After homoscedasticity was determined, the appropriate t-values (using a two-tailed test) and probability levels were obtained.
RESULTS

Considerations for Random Assignment

The ISAT groups utilized in this study were preexisting therapy groups which, for ethical and research concerns, could not be disrupted and then randomly reassigned into specific control and experimental groups. Moral and ethical considerations precluded gathering all the subjects together and then randomly reassigning them into new groups. This would seriously disrupt an existing—and extremely important—therapeutic process for all subjects involved. Further, since the control subjects were to remain in a conventional group therapy program, reassignment would likely place this group at a comparative disadvantage because traditional group processes would be dramatically, if temporarily, mitigated. Maintaining the existing therapeutic structure would not create this undue advantage for the experimental group while, it facilitated a smoother transition to the adolescents' regular treatment routines after the training was completed.

Although there was no identifiable or reported formula that ISAT staff utilized to place adolescent offenders into their respective therapy groups for the reasons reported above, the selection processes utilized necessarily violated important properties of statistical randomness. To help assess the effects of this statistical compromise, pretest comparisons were carried out to assess group differences
prior to implementation of the ASSET program.

**Pretest comparisons: Experimental versus control group equivalence.** The use of a nonrandom design, ethically necessary for maintaining the existing therapeutic group structure, necessitated implementation of pretest comparisons designed to determine the degree of group equivalence prior to beginning the ASSET program. If experimental and control groups were found to differ significantly on pretest scores for the various measures utilized in the study, then pretreatment equivalence of the groups might be in question. Such a finding might suggest that pretest-posttest comparisons would be a more valid assessment of treatment effects than experimental versus control group posttest analysis, at least for those areas where initial equivalence could not be established.

T-test comparisons, outlined in Table 5, summarize these findings. Nonsignificant differences between groups were observed for the ASSET skills giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, problem solving, and conversation. However, the control group tested as significantly less adept for the skills negotiation and following instructions when compared to the experimental group.

Concerning the PARI, the differences between group means approach significance, with the control group reporting more effective communication. The problem-solving scale is
Table 5
Mean Comparisons Between Experimental and Control Groups on Pretests (Adolescent sample)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td><strong>ASSET</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving + Feedback</td>
<td>58.8</td>
<td>10.9</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>31.2</td>
<td>8.2</td>
</tr>
<tr>
<td>Accept - Feedback</td>
<td>52.3</td>
<td>7.6</td>
</tr>
<tr>
<td>Resisting Peer Pres</td>
<td>45.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>39.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Negotiation</td>
<td>47.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Following Inst</td>
<td>60.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Conversation</td>
<td>47.6</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>PARI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>30.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>21.4</td>
<td>10.7</td>
</tr>
<tr>
<td><strong>CBCL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalization</td>
<td>20.3</td>
<td>9.0</td>
</tr>
<tr>
<td>Internalization</td>
<td>23.5</td>
<td>14.3</td>
</tr>
<tr>
<td>Activities</td>
<td>5.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Social</td>
<td>4.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Unpopularity</td>
<td>13.2</td>
<td>10.0</td>
</tr>
</tbody>
</table>
statistically equivalent.

The CBCL (adolescent form) subscales are statistically equivalent for those scales utilized in this study, namely, externalization, internalization, activities, social, and unpopular.

In general, interactive observational measures (ASSET skills tests) tend to suggest that the control group was somewhat less socially skilled than the experimental group. However, the PARI (adolescent self-report form) suggests that these adolescents perceive the communication aspects with their parents to be somewhat better than their experimental counterpart. As the control group was aware that they would not immediately participate in the ASSET program, the researcher suggests that the elevated PARI scores might in part be due to a defensive response concerning perceived need for the program. Similarity of CBCL and ASSET scores across the groups provide some support for this hypothesis. The CBCL self-report form is a broader instrument than the PARI and, hence, the score is subject to less inflated scores on items associated with the parent-adolescent relationship (only three items contain content that directly relates to the adolescents' homes). Further, the ASSET skills tests directly assess specific behaviors and cannot be faked by subjects in order to present themselves in a positive light. In summary, although some differences existed between the groups for specific scales, pretest comparisons suggest that overall
the experimental and control groups exhibited relatively similar levels of social skill as measured by the instruments.

**Pretest Versus Posttest Comparisons**

Examination of the findings from the data analysis summarized in Table 6 indicate that the experimental group was able to acquire the ASSET skill behaviors at a level far greater than expected by chance (p. < .05). Comparative analysis of the control group results reveal no significant improvement. As hypothesized, significant gain in ASSET skill behaviors appears to be directly related to inclusion in the social skills training program. Figure 1 provides a graphical representation of the pre to-posttest changes for these skills.

Significant improvement in the ASSET behaviors for the experimental group is not at all surprising since these teens were trained in specific skills. However, how does this generalize, if at all, to social situations out of the group context? Examination of adolescent self-reports on the PARI (see Table 7) suggest that the participants in the experimental group perceive significant improvement in communication with parents, while review of the findings for the pre versus posttest control group comparisons suggest no change beyond that expected by chance. However, results from the analysis of the posttest comparisons across groups, examined in the next section, may moderate the
Table 6
Mean Comparisons Between Experimental and Control Pre-
Versus Posttests for the ASSET

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pretest</th>
<th>SD</th>
<th>Posttest</th>
<th>SD</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSET (Exp)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving + Feedback</td>
<td>58.8</td>
<td>10.9</td>
<td>71.6</td>
<td>7.3</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>31.2</td>
<td>8.2</td>
<td>50.2</td>
<td>6.6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Accept - Feedback</td>
<td>52.3</td>
<td>7.6</td>
<td>62.8</td>
<td>6.6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Resist Peer Pres</td>
<td>45.2</td>
<td>7.9</td>
<td>60.4</td>
<td>5.4</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>39.0</td>
<td>5.7</td>
<td>58.0</td>
<td>6.0</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Negotiation</td>
<td>47.5</td>
<td>6.7</td>
<td>65.7</td>
<td>4.6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Following Inst</td>
<td>60.3</td>
<td>6.0</td>
<td>69.7</td>
<td>5.6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Conversation</td>
<td>47.6</td>
<td>8.9</td>
<td>60.1</td>
<td>5.5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>ASSET (Control)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>56.0</td>
<td>4.1</td>
<td>57.7</td>
<td>6.3</td>
<td>.48</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>27.3</td>
<td>6.8</td>
<td>29.0</td>
<td>7.2</td>
<td>.59</td>
</tr>
<tr>
<td>Accept - Feedback</td>
<td>49.0</td>
<td>6.7</td>
<td>49.7</td>
<td>8.1</td>
<td>.84</td>
</tr>
<tr>
<td>Resist Peer Pres</td>
<td>41.3</td>
<td>6.3</td>
<td>43.5</td>
<td>5.8</td>
<td>.43</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>35.1</td>
<td>6.0</td>
<td>38.8</td>
<td>5.8</td>
<td>.18</td>
</tr>
<tr>
<td>Negotiation</td>
<td>42.9</td>
<td>4.3</td>
<td>46.2</td>
<td>4.5</td>
<td>.11</td>
</tr>
<tr>
<td>Following Inst</td>
<td>54.0</td>
<td>7.0</td>
<td>57.5</td>
<td>6.5</td>
<td>.26</td>
</tr>
<tr>
<td>Conversation</td>
<td>46.3</td>
<td>5.8</td>
<td>50.3</td>
<td>5.0</td>
<td>.12</td>
</tr>
</tbody>
</table>
Table 7

Mean Comparisons Between Experimental and Control Pre- Versus Posttests for the PARI and CBCL (Adolescent)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pretest</th>
<th>SD</th>
<th>Posttest</th>
<th>SD</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARI (Exp)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>30.9</td>
<td>8.0</td>
<td>39.5</td>
<td>6.1</td>
<td>.002</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>21.4</td>
<td>10.7</td>
<td>24.6</td>
<td>10.6</td>
<td>.41</td>
</tr>
<tr>
<td><strong>PARI (Control)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>37.7</td>
<td>8.8</td>
<td>37.2</td>
<td>8.0</td>
<td>.90</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>22.3</td>
<td>8.7</td>
<td>23.9</td>
<td>8.8</td>
<td>.69</td>
</tr>
<tr>
<td><strong>CBCL (Exp)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalization</td>
<td>20.3</td>
<td>9.0</td>
<td>14.2</td>
<td>5.7</td>
<td>.03</td>
</tr>
<tr>
<td>Internalization</td>
<td>23.5</td>
<td>14.3</td>
<td>18.7</td>
<td>9.6</td>
<td>.27</td>
</tr>
<tr>
<td>Activities</td>
<td>5.2</td>
<td>3.3</td>
<td>7.1</td>
<td>2.1</td>
<td>.06</td>
</tr>
<tr>
<td>Social</td>
<td>4.3</td>
<td>2.8</td>
<td>6.9</td>
<td>1.7</td>
<td>.005</td>
</tr>
<tr>
<td>Unpopularity</td>
<td>13.2</td>
<td>10.0</td>
<td>10.5</td>
<td>5.3</td>
<td>.35</td>
</tr>
<tr>
<td><strong>CBCL (Control)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalization</td>
<td>17.2</td>
<td>14.7</td>
<td>20.1</td>
<td>13.3</td>
<td>.64</td>
</tr>
<tr>
<td>Internalization</td>
<td>19.9</td>
<td>15.7</td>
<td>19.9</td>
<td>10.9</td>
<td>1.00</td>
</tr>
<tr>
<td>Activities</td>
<td>5.2</td>
<td>2.3</td>
<td>5.1</td>
<td>2.1</td>
<td>.92</td>
</tr>
<tr>
<td>Social</td>
<td>6.0</td>
<td>2.3</td>
<td>5.9</td>
<td>2.3</td>
<td>.92</td>
</tr>
<tr>
<td>Unpopularity</td>
<td>11.6</td>
<td>9.1</td>
<td>11.5</td>
<td>6.1</td>
<td>.98</td>
</tr>
</tbody>
</table>
FIGURE 1: ASSET Skills Change: Pre- versus Posttest.
inferential utility of these findings.

Adolescent self-reports for the CBCL, as indicated on Table 7, reveal significant improvement concerning problem behaviors that load high on externalization. Further, significant increases are noted in the total number and perceived competency of social interactions, while near significant improvement may be observed for the total number and perceived competency of activities (social, sport, and academic). As with the ASSET and PARI, review of the pre-versus posttest comparisons for the control group (also Table 7) reveal no statistically significant improvements in social competence as measured by the CBCL.

Experimental Versus Control Group Posttest Differences

Additional analysis was undertaken on posttest measures between the experimental and control groups to determine if significant treatment effects held up over across-group comparisons. Examination of Table 8 shows that for all ASSET skills, the experimental group exhibited significant improvement over the control group.

As noted earlier, highly significant findings concerning improvements in the specific ASSET behaviors, as measured by the ASSET tests, are not surprising because these skills were behaviorally specific and were taught only to the experimental group. Examination of scores for instruments that assess general social competence considerably temper the extent to which ASSET skills generalize to nongroup
Table 8

Mean Comparisons Between Experimental and Control on Posttests (Adolescent)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental Mean</th>
<th>Experimental SD</th>
<th>Control Mean</th>
<th>Control SD</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving + Feedback</td>
<td>71.6</td>
<td>7.3</td>
<td>57.7</td>
<td>6.3</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Giving - Feedback</td>
<td>50.2</td>
<td>6.6</td>
<td>29.0</td>
<td>7.2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Accept - Feedback</td>
<td>62.8</td>
<td>6.6</td>
<td>49.7</td>
<td>8.1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Resist Peer Pres</td>
<td>60.4</td>
<td>5.4</td>
<td>43.5</td>
<td>5.8</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>58.0</td>
<td>6.0</td>
<td>38.8</td>
<td>5.8</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Negotiation</td>
<td>65.7</td>
<td>4.6</td>
<td>46.2</td>
<td>4.5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Following Inst</td>
<td>69.7</td>
<td>5.6</td>
<td>57.5</td>
<td>6.5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Conversation</td>
<td>60.1</td>
<td>5.5</td>
<td>50.3</td>
<td>5.0</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>PARI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>39.5</td>
<td>6.1</td>
<td>37.2</td>
<td>8.0</td>
<td>.41</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>24.6</td>
<td>10.6</td>
<td>23.9</td>
<td>8.8</td>
<td>.87</td>
</tr>
<tr>
<td>CBCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalization</td>
<td>14.2</td>
<td>5.7</td>
<td>20.1</td>
<td>13.3</td>
<td>.13</td>
</tr>
<tr>
<td>Internalization</td>
<td>18.7</td>
<td>9.6</td>
<td>19.9</td>
<td>10.9</td>
<td>.77</td>
</tr>
<tr>
<td>Activities</td>
<td>7.1</td>
<td>2.1</td>
<td>5.1</td>
<td>2.1</td>
<td>.02</td>
</tr>
<tr>
<td>Social</td>
<td>6.9</td>
<td>1.7</td>
<td>5.9</td>
<td>2.3</td>
<td>.23</td>
</tr>
<tr>
<td>Unpopular</td>
<td>10.5</td>
<td>5.3</td>
<td>11.5</td>
<td>6.1</td>
<td>.66</td>
</tr>
</tbody>
</table>
social situations. However, this feature should be evaluated in light of the time frame in which posttesting occurred. That is, immediately following the end of ASSET training, the subjects were retested. This allowed very little time for the experimental group subjects to practice the skills learned outside the group context.

Review of posttest PARI scores (adolescent reports) across groups does not provide evidence of a significant increase in perceived communication or problem-solving within the context of the parent-adolescent dyad. In the case of the communication scale, this finding conflicts with experimental pre- versus posttest comparisons that suggest improvement. There are at least three potential explanations for this phenomenon. The first possibility is that the ASSET training is not related to improvements in the adolescent's perception of communication with his parents. From a standpoint concerning implications for the use of ASSET training with this population, this would be the most conservative approach. Another possibility is that since the parents were not involved in the training procedure, they simply didn't know what kinds of behaviors to look for. The teens may have been making efforts to improve communication, but given the parent's lack of training, they were not able to recognize them as such, or any changes were out of their child's character and, hence, not perceived by the parents as being genuine. However, at least one other possible explanation of this finding
deserves attention. Given the difference between mean pretest scores for the communication subscale, it is possible that the pretest results for the control group—significantly higher than the experimental group to begin with—were such that without an inordinate increase in the experimental group's posttest score, statistically significant improvement across groups could not be realized. As will be seen, parental perception of improvement in communication within this dyad lends at least some credence to this hypothesis.

Examination of the posttest CBCL findings reveal that only in the case of the activities scale does the experimental group continue to exhibit significant gain over the control group. Neither the social scales nor those that load high on externalization—significantly different between experimental pre- versus posttest comparisons—differ beyond that expected by chance when compared across groups.

Differences Between Pre- Versus Posttest Parent Measures for the Experimental Group

Since self-report measures are susceptible to perceptual bias, parent reports were utilized to obtain an assessment of the degree of change in social behavior from another person's perspective. Unfortunately, pre- versus posttest comparisons were analyzed only for parents of the adolescents in the experimental group because an
unacceptable low response rate for the control group parents, numerically smaller to begin with, made control group comparisons impossible. Results of the data analysis, as reported in Table 9, are moderately consistent with the corresponding adolescent measures for both the PARI and CBCL.

Examination of PARI findings indicates that parents of the experimental group report a near significant level of improvement in communication within the context of the parent-adolescent dyad. This characteristic provides some intuitive evidence that the failure to find significant increases in communication for the corresponding adolescent scale, that is, for across-group comparisons, may have been partially due to a lack of pretest group equivalence.

As with the adolescent report, no significant difference is observed in parent's perception of problem-solving competence. The consistency of this feature across parents and their teens suggests that, at least immediately following completion of training, ASSET appears to have neither a positive nor negative influence upon problem-solving competence within the context of this dyad.

Examination of CBCL results suggest that parents of the adolescents in the experimental group perceive improvements concerning the behavior problem scales that load on internalization. Further, they also report significant increases in the total number of social interactions, as well as the degree of competence for their
Table 9
Mean Comparisons Between Experimental Pre and Posttests on the PARI and CBCL (Parent Report)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pretest</th>
<th>SD</th>
<th>Posttest</th>
<th>SD</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>35.2</td>
<td>9.1</td>
<td>41.6</td>
<td>7.1</td>
<td>.08</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>21.7</td>
<td>6.4</td>
<td>25.6</td>
<td>6.3</td>
<td>.16</td>
</tr>
<tr>
<td><strong>CBCL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalization</td>
<td>16.4</td>
<td>12.8</td>
<td>10.4</td>
<td>5.6</td>
<td>.17</td>
</tr>
<tr>
<td>Internalization</td>
<td>14.2</td>
<td>7.0</td>
<td>8.5</td>
<td>5.3</td>
<td>.04</td>
</tr>
<tr>
<td>Activities</td>
<td>5.6</td>
<td>2.1</td>
<td>6.5</td>
<td>1.7</td>
<td>.25</td>
</tr>
<tr>
<td>Social</td>
<td>4.5</td>
<td>1.6</td>
<td>6.2</td>
<td>1.7</td>
<td>.03</td>
</tr>
<tr>
<td>Uncommunicative</td>
<td>6.7</td>
<td>3.8</td>
<td>4.2</td>
<td>3.1</td>
<td>.11</td>
</tr>
</tbody>
</table>
teens. Concerning the social scale, these findings are similar to their adolescents' perceptions on pre- versus posttest measures. However, as noted above, the findings did not hold up across experimental versus control group comparisons. Activities, the only scale to remain significantly improved in the analysis of both the experimental pre- versus posttest adolescent comparisons and the experimental versus control group posttest comparisons, was not perceived as significantly improved by parents. Whether this discrepancy is due to the high level of content validity on the CBCL (which may encourage the teens to self-report higher scores for items on the activities scale), a lack of reliability across the self- and parent-report forms of the CBCL, small sample size, or perceptual differences between adolescents and their parents, is unknown. What can be posited is that both the parents and their teens of the experimental group do appear to perceive some, albeit somewhat different, qualitative improvements on behaviors as measured by this scale, beyond which the data is ambiguous.
DISCUSSION

Review of Hypotheses

The primary objective of this study was to determine if a social skills training program would enhance the interpersonal relationship skills of a group of adolescent sex offenders. Several measures, including interactive assessments, self-reports, and parent-report instruments, were utilized to assess the results of the training program.

The first hypothesis posited that, for the experimental group, ASSET training would result in significant gains on the specific skill behaviors taught, while the control group would exhibit no change. Examination of the ASSET test results suggest that the experimental group was, indeed, able to learn the eight behaviors to a degree far greater than what would be expected by chance. No significant improvement was observed for the control group. These results hold up in both experimental pre- versus posttest findings and posttest comparisons across groups. As these skills are hypothesized to be requisite precursor to engaging in more socially competent behavior with parents, peers, and others, this outcome is encouraging.

Concerning the second hypothesis, positing improvements in interpersonal communication for the experimental group following ASSET training, the measures assessing the degree to which the ASSET skills improved competence in the communicative aspects of interpersonal relationships, is
more equivocal. Analysis of the experimental pre- versus posttest comparisons tends to support a generalization of ASSET skills to an out-of-group context as evidenced in increases for perceived communication with parents and improved scores on social and activity scales. Parental reports provide near significant support for their teens' perceptions of improved communication within the parent-adolescent dyad. Further, parents indicate improvements in social situations related to friendship or peer relationships. However, findings on experimental versus control posttest comparisons for the adolescents are significant only for the CBCL scale activities, which fails to approach significance on corresponding parent-report measures. In addition, parents do not report improvements in communication as evidenced on the CBCL scale uncommunicative, a more general measure than the PARI communication scales.

Following the successful completion of ASSET training, hypothesis three posited that a decrease in interpersonal conflict between subjects in the experimental group and significant others (e.g., peers, parents, and other authority figures) would be observed. Comparisons between experimental group findings on the PARI communication and problem-solving scales suggest that although teens and their parents may sense a greater ease and willingness to talk together, conflict between parent and teen did not notably decrease.
Findings on the social and activity scales of the CBCL, as noted above, provide some support, albeit inconsistent, that experimental group teens increased skills in both number of and competence in social interactions with peers. Further, findings for the CBCL problem behavior scales that load high on externalization suggest that the experimental group exhibited fewer behaviors associated with interpersonal conflict following ASSET training than did the control group. However, this finding was only significant on pre- versus posttest comparisons on adolescent self-reports, although significance was approached (prob. < .13) on across-group comparisons.

Hypothesis four, which posits improvements in popularity following social skills training, was not realized. Analysis of the CBCL scale unpopularity indicates that, at least immediately following ASSET training, subjects do not perceive improvements in social popularity as measured by this scale.

**Elucidation of Discrepant Findings**

These mixed and somewhat conflicting findings may be due to divergent psychometric properties of the various instruments utilized to assess social competence outside the group context, perceptual differences between teens and their parents, or some uncontrolled variable.

A variety of instruments was used to evaluate the interpersonal relationship skills of adolescents in the
study. This construct is made up of adaptive behaviors and a repertoire of accessible skills (competence), in addition to motivation factors like performance (see Gresham, 1986). The ASSET skills tests assess competence as it relates to the specific behaviors taught. They in no way should be interpreted as an estimate of the trainee's general social performance. The PARI, and to a lesser extent the CBCL, evaluate social competence as related to perceived performance. They are moderately objective measures that examine behavior in a different context. The PARI assesses communication and problem solving in the parent-adolescent dyad, and the CBCL measures social competence and problem behaviors in various contexts. Therefore, a high degree of intercorrelation between ASSET scores and these other measures should not necessarily be expected. Neither should there necessarily be a high correlation between the PARI and CBCL since they are contextually different. What may be hypothesized is that improvements in the ASSET skills are antecedent and requisite to later improvement in the areas assessed by the PARI and CBCL.

As mentioned above, the parents of the experimental group were not trained in reciprocal social skills. Evidence, albeit minimal, nevertheless suggests that they did perceive minor improvements in communication within the parent-adolescent dyad and increases in both the number of social interactions and competence within those interactions. Given these findings, it may be speculated
that training parents in reciprocal social skills would further enhance their ability to detect attempts to interact in a more competent manner, at least within the dyad.

Additional considerations for evaluating these discrepant findings are worth mention. The first concerns the length of time between ASSET training and the posttest session as related to perceptions of improvement in interpersonal relationship skills. The one week delay between the end of training and testing is insufficient to provide adequate social feedback upon which perceptions of social competence might be based. Therefore, even if experimental subjects behave in a more socially proficient manner, they may not yet have received enough positive feedback—if any—to significantly alter his self-perceptions related to social behavior. The same may hold true for parental perceptions of their child’s social competence.

Another possible explanation for these findings is what Nobel (1988) calls the sleeper effect. This phenomenon might result in participants of the SST program reporting greater and more consistent improvements in interpersonal relationship skills but only after a delay sufficient for appropriate internalization of the ASSET skills. Such an explanation suggests that the teen has not yet had enough practice to become appropriately adept at using the skills in social situations outside the training context.

Finally, as frequently noted, the findings of this study
are discrepant in that the results are not consistently significant but rather favor the experimental group, across measures, and group comparisons. As in most research studies, this one proposed to assess and interpret statistically significant differences between experimental and control groups following a treatment. This involved minimizing type I error, that is, rejecting the null hypothesis when it is in fact true.

A review of the tables and the results section provides some interesting evidence that type II error, accepting the null hypothesis when false, has been overlooked. Across measures and group comparisons, the experimental group's test results exhibit change in the direction consistent with improved interpersonal behavior. This improvement is not always significant, but it is very consistent. The social, activities, externalization, and uncommunicative scales of the CBCL consistently, although not always significantly, improved in the desired direction. In addition, for both the communication and problem-solving scales of the PARI, change moved in the hypothesized direction. This phenomenon warrants concern that the lack of significance may have been an artifact of the methodology utilized and not an ineffectual treatment.

Implications for Future Research

The results of this study may be interpreted by some to provide moderately strong support for the inclusion of
ASSET social skills training in the treatment program of adolescent sex offenders. The potential this population has for inflicting physical and psychological trauma upon their victims, as well as the dramatic growth in reported offenses, has created a demand for treatment options. However, increased interest in treatment of adolescent sex offenders should not result in a "grasping at straws" approach concerning intervention techniques.

The teens who participated in this study were concurrently involved in a court-ordered offender program that included severe consequences for noncompliance with their ISAT treatment contracts. As a result, most of the adolescents were highly motivated to perform well in the program. This condition set up the potential for "Hawthorn" (Roethlisberger & Dickson, 1966) type effects. The subjects, especially the experimental group, may have made an active effort to provide the data they believed the researcher was seeking in an attempt to portray themselves as cooperative, motivated participants.

With these factors in mind and given the paucity of research concerning social skills training programs with this population, immediate recognition of programs such as ASSET as valuable treatment adjuncts may be premature. Methodological and intervention considerations as well as concerns for treatment outcome preclude hasty conclusions.
Methodological considerations. This study has some of the methodological weaknesses associated with pilot studies, especially those involving clinical samples and institutional studies. First and foremost are the statistical compromises made to mitigate any potential harm that might result from disruption of the adolescents' treatment programs. As noted earlier, the subjects who participated in the study were not randomly assigned to either a control or experimental group. For ethical reasons, which are paramount, existing groups were utilized. Although this design feature may draw immediate criticism, it can ethically be addressed by comparing the results of similar follow-up studies. If a lack of randomness results in inconsistent findings, then comparisons across studies should be discrepant.

Further, disruptions to existing groups would create an undue advantage for the experimental group. Dramatic change in group format or membership is associated with a negative outcome (Hansen, Warner, & Smith, 1980). Since the control group remains a therapy group, reforming the control group would mean that these individuals would have to reestablish basic group processes. The experimental group, being involved in a psychoeducational program, would not be subject to such disruptive effects. Therefore, comparisons between groups in a completely random design would likely put the control group at a significant disadvantage. Even if the opportunity were available to create entirely new
groups, for example, recent referrals who had not yet
entered group treatment, the control group might still be at
a comparative disadvantage because of the time required to
initiate group processes. Therefore, random assignment of
groups as a whole to either experimental or control
situations, as done in this study, may be the best option
presently available.

Replication of this study with a larger sample size
would add to the reliability of this research. Disparity
between groups on measures of central tendency and
dispersion are more likely with small sample sizes because
outlyers have a greater potential to skew means or increase
variances. These statistical phenomenon in turn decrease
the likelihood of obtaining statistically significant
differences for between-group comparisons. With only 18
subjects in the experimental group, 10 in the control group,
and 11 in the experimental parent group, the reliability of
these findings is questionable. A follow-up study could
well find significantly different results, especially for
the PARI and CBCL. Replicating this study with group
sizes of at least 30 subjects each would greatly enhance the
prospects of consistent outcomes.

Although necessarily compromised in this instance,
future research would be greatly enhanced by using a design
that would provide increased validity of treatment effects.
Implementation of the Solomon Four-Group Experimental Design
would meet this criteria. This design provides for the
direct comparison of pre- and posttest results between experimental and control groups while controlling for all sources of internal invalidity (i.e., history, maturation, testing, instrumentation, statistical regression, selection, experimental mortality, and interaction of selection and maturation). Further, this design effectively controls for the interactive effects of testing, a source of external invalidity (Campbell & Stanley, 1963).

Incorporating multiple posttests for both the experimental and control groups would not only provide data concerning any delay between social skills training and later changes in interpersonal relationship competence, but it would allow assessment of the stability of improvements through test-retest comparisons. Further, most of the instruments used in this study have a sufficient number of items to establish split-half reliabilities. These two procedures would provide valuable information concerning the stability of the training effects specifically, while furnishing important reliability data for the measures and their use with adolescent sex offenders generally.

Methodologically, the results of this study are compromised by one fundamental confound, that is, the interaction between the experimental subject's individual therapist (and therapeutic style) with the treatment. Subjects in the experimental group were seen by any one of a number of individual therapists who have unique
personalities and different approaches to therapy. Therefore, although the end goals may be similar for the adolescent offenders as a group, the techniques used to achieve them may differ significantly among individual therapists. Due to the small sample size and experimental design, therapist-by-treatment interaction was not controlled. In a follow-up study, procedures such as analysis of covariance should examine and partial out any effects related to the subjects' having different individual therapists.

A final consideration concerns the use of mixed sex groups. Given the present paucity of research concerning group treatment programs for male adolescent sex offenders in general and mixed sex groups specifically (I could find nothing applicable), this problem will likely have to wait until adequate research concerning female offenders and mixed-sex treatment programs is available.

Considerations for treatment outcome. Several considerations are worth mentioning here. First, existing evidence suggests that adolescent sex offending is but one observable characteristic of an otherwise dysfunctional family. Involvement of other family members, especially parents, in the treatment process, including social skills training, may be requisite to achieving a lasting generalization of all aspects of social competence. Such a position has been posited by Serna et al. (1986) concerning social competence within the parent-adolescent dyad and
later studied by Adams et al. (1988) using the ASSET program.

Finally, given the trauma this population inflicts upon victims, it is paramount to determine that social skills training like ASSET does not result in more socially skilled sex offenders. Examination of perpetrator characteristics may intuitively suggest that this is not likely; however, there is not yet sufficient research concerning social skills training and adolescent offender recidivism rates to predict success of treatment outcome. Incorporating instruments such as the California Psychological Inventory (Harrison & Gough, 1975) into future studies may provide predictive information on the likelihood of reoffense. If personality traits or characteristics, as defined by CPI scales, can be shown to be associated with adolescent sex offending, and further, if scores on these scales improve after social skills training, then it may be that reoffending will be less likely because antecedent personality variables will have been modified.

In conclusion, sexual offending, especially when the perpetrator is an adolescent, is a highly volatile and complex issue. This study encourages research that examines the effects of various treatment procedures, including social skills training, on this population and provides some impetus towards developing effective, standardized options.
REFERENCES


Levin, S. M., & Stava, L. (1987). *Personality*
characteristics of sex offenders: A review. Archives of Sexual Behavior, 16(1), 57-76.


based personality types among juvenile sexual offenders. 


APPENDICES
Appendix A: PARI Subscales — Parent Report

Communication scale.
1. My teenager lies to me often.
2. My teenager is defensive.
3. My teenager thinks my opinions don't count.
4. My teenager provokes me into an argument at least twice a day.
5. My teenager blows up for no reason.
6. When we discuss things my teenager gets restless.
7. My teenager leaves the house 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 we have 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 times 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.

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.
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 our 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 argument.

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 lose 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 - Adolescent Report

Communication scale.
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 father 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 dad 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 thing over and over.
46. When we talk my dad says the same thing 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.
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 - Pre- and Posttraining Checklists

Giving positive feedback.
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?

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. Tell 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 understood 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. Not "put down" the other person?

Accepting negative feedback.
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 was talking and remember to give head nods and say "mm-hmm" and "yeah"?
8. Ask for clarification, if necessary?
9. If he/she agreed with the feedback, apologizes and either says that he/she understood the feedback or ask for suggestions?
10. If he/she didn't agree with the feedback, say that he/she understood, and then asked permission to tell his/her side and told it with facts?
11. If the other person was an authority figure, accept
the feedback, even if he/she did not agree with it?
If the other person was not an authority figure, either accept the feedback or thank the person for his/her concern and say that he/she would think about it?
12. Remain calm and make no angry statements or accusations?
13. Not interrupt when the other person was speaking?

Resisting peer pressure.
1. Face the person during the conversation?
2. Maintain eye contact with the other 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?

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?

**Negotiation.**

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 was positive, thank the person?
If the response was 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 was talking by giving head nods and by saying "mm-hmm" and "yeah"?

Following instructions.

1. Face the person when receiving the instruction?

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 positive 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 will follow the instruction?

10. Follow the instruction?
11. Give polite, pleasant responses?
12. Not argue with the person about the instruction?

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 about the topic of conversation?
10. Ask another 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?