I, Kellie E. Ingram, hereby submit this work as part of the requirements for the degree of:

Master of Arts in:

Communication Sciences and Disorders

It is entitled:

Teacher Perceptions of a Clinic Based Conversation Skills Group Training Program Pre and Post Intervention on Children with High Functioning Autism/Asperger Syndrome

This work and its defense approved by:

Chair: Sandra Grether, Ph.D.
Donna Murray, Ph.D.
Jo-Ann Prendeville, Ed.D.
Allison Smith, M.A.
Teacher Perceptions of a Clinic Based Conversation Skills Group Training Program Pre and Post Intervention on Children with High Functioning Autism/Asperger Syndrome

A thesis submitted to the

Division of Research and Advanced Studies
of the University of Cincinnati

in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

University of Cincinnati/Cincinnati Children’s Hospital Medical Center

Kellie E. Ingram, B.A., The Ohio State University
May 14, 2007

Master of Arts Candidate
College of Allied Health Sciences
Department of Communication Sciences and Disorders

Committee Chair: Sandra Grether, Ph.D.
Committee Members: Donna Murray, Ph.D.
    Jo-Ann Prendeville, Ed.D.
    Allison Smith, M.A.
ABSTRACT

Author: Kellie E. Ingram

Title: Teacher Perceptions of a Clinic Based Conversation Skills Group Training Program Pre and Post Intervention on Children with High Functioning Autism/Asperger Syndrome

Thesis Advisor: Sandra Grether, Ph.D., CCC-SLP

Institution: University of Cincinnati

Degree: Master of Arts

Year: 2007

Prior research has shown that children with autism display pragmatic impairments in their language. There was an interest in examining teacher’s perceptions of behavior and social skills pre and post intervention for children diagnosed with High Functioning Autism/Asperger Syndrome (HFA/AS) participating in a clinic-based social skills group intervention. This study aimed to measure the perception of change in social skills when directly teaching conversation skills to children with HFA/AS in a clinic-based outpatient group setting, as well as, to measure the generalization of taught conversation skills to a natural environment, based on pre and post questionnaires given to teachers of the participants. Overall, the participants’ data was variable. Statistical significance was found in the decrease of problematic behaviors, an increased ability in affective understanding/perspective taking, and the ability to maintain interactions. There was, however, no statistical significance in an increased ability to initiate and respond to interactions.
ACKNOWLEDGEMENTS AND DEDICATION

The author wishes to thank Dr. Sandra Grether, Dr. Donna Murray, and Allison Smith for their guidance and dedication to this study. Thanks also to Dr. Jo-Ann Prendeville for her willingness to be a part of my defense committee.

This thesis is dedicated to my parents (Cheryl and Douglas Ingram) for all of their love and support throughout my collegiate years.
# Table of Contents

ABSTRACT ................................................................................................................................... iii

ACKNOWLEDGEMENTS AND DEDICATION ................................................................. iv

Table of Contents ......................................................................................................................... v

LIST OF TABLES ......................................................................................................................... vi

CHAPTER ONE .......................................................................................................................... 1

INTRODUCTION ...................................................................................................................... 1

REVIEW OF LITERATURE ...................................................................................................... 1

Conversational skills in children with autism........................................................................ 1

Autism versus Asperger Syndrome ....................................................................................... 3

Theory of Mind ...................................................................................................................... 3

Generalization ...................................................................................................................... 4

Teachers as Informants ........................................................................................................ 5

Interaction .......................................................................................................................... 5

Social Skills Groups ............................................................................................................ 6

Rationale/Purpose ............................................................................................................... 7

Research Questions ........................................................................................................... 7

CHAPTER TWO ....................................................................................................................... 9

METHODS ............................................................................................................................. 9

Subjects/Participants ......................................................................................................... 9

Materials .......................................................................................................................... 9

Procedures ........................................................................................................................ 10

Data Analysis .................................................................................................................... 11

CHAPTER THREE .................................................................................................................. 13

RESULTS ............................................................................................................................. 13

CHAPTER FOUR ...................................................................................................................... 17

DISCUSSION ....................................................................................................................... 17

LIMITATIONS ..................................................................................................................... 19

FUTURE RESEARCH ........................................................................................................ 19

REFERENCES: ...................................................................................................................... 21
LIST OF TABLES

Table 1. Participant Averages on the Problem Behavior Rating Scale-T

Table 2. Participant Averages on the “Affective Understanding/Perspective Taking” domain of the Social Skills Survey-T

Table 3. Participant Averages on the “Initiating Interactions” domain of the Social Skills Survey-T

Table 4. Participant Averages on the “Responding to Initiations” domain of the Social Skills Survey-T

Table 5. Participant Averages on the “Maintaining Interactions” domain of the Social Skills Survey-T
CHAPTER ONE
INTRODUCTION

Autism is a neurological disorder that will hinder appropriate social, cognitive, and emotional functioning. Research has shown that children with autism display pragmatic impairments in their language use (Wilkinson, 1998). The profile of language use in autism is best defined as a selective deficit in the application of different language forms for the purposes of functional communication (Wilkinson, 1998). Because language is a central component in social relationships, it is appropriate to further research the pragmatic language use of children with autism. Pragmatics is one of the four subsystems of language. Pragmatic rules describe the use of language in social interactions. These pragmatic communication functions include but are not limited to, turn taking, nonverbal acts or gestures, verbalizations, joint attention and the use of eye contact to facilitate interactions (Wilkinson, 1998). A failure to establish peer relationships either at home, school, or other community settings can be attributed to difficulties in the previous functions (Barry et al., 2003). The foundation for social and personal relationships surrounds communication. Communication has a powerful effect on behavior, self-regulation, and learning (Koegel, 2000).

REVIEW OF LITERATURE

Conversational skills in children with autism

Communicative or conversational skills in children with autism spectrum disorders (ASD) continue to be a core deficit among this population. Living in a society in which we are judged by our ability to communicate, individuals diagnosed with ASD are placed at a disadvantage. All individuals desire to be perceived as socially competent and being
that social dysfunction is a defining and handicapping characteristic of autism, improving the ability to function socially is one of the most important goals of intervention (Rogers, 2000).

Impairments in social dysfunction in children with autism may include inappropriate nonverbal behaviors, inability to regulate social interaction, and failure to develop peer relationships (Jackson, Fein, Wolf, Jones, Hauck, Waterhouse, & Feinstein, 2003). Social interaction is such an integral component to autism spectrum disorders, it is important to understand the nature of social interactions across several groups of children as compared to those with autism (Jackson, et al., 2003). Dawson (1998) and colleagues found that children with autism failed to orient to social stimuli versus nonsocial stimuli when compared to other groups (children with Down syndrome and the developmentally matched control group). There were however, some children with autism that did orient to social stimuli but did so in a much slower rate when compared to the controls (Dawson, Meltzoff, Osterling, Rinaldi, & Brown, 1998). Among the population of children diagnosed with autism, there is a consistent problem surrounding their level of spontaneous verbal and nonverbal communicative initiations (Koegel, 2000). When communication development of children with typical development was compared to children with autism and Down syndrome, Tager-Flusberg and Anderson (1991) concluded that early stages of language development were similar among all three groups in their topic-related conversation ability. However, in the later stages of linguistic development, children with typical development and the children with Down syndrome became more reliant on their speech while children with autism lacked this ability. Along with a lack of initiations, children with autism also tend to require
consistent prompting from adults and do not demonstrate the ability to use the functions needed for communicative competence (Koegel, 2000). Rarely is their language used for a social interaction (Chin & Benard-Opitz, 2000). Social competence is judged by one's ability to use socially appropriate spontaneous initiations during interactions. Working to develop efficacious procedures to teach the complex communication domains is likely to improve the quality of life for children with autism (Koegel, 2000).

**Autism versus Asperger Syndrome**

When comparing the language of children with autism versus children with Asperger’s syndrome, some differences are evident. While in a clinical setting, children with Asperger’s syndrome may not appear to have a significant delay in language or intellectual function, but they share the social and communicative impairments, and restrictive and repetitive patterns as children diagnosed with autism (Ziatas, Durkin, & Pratt, 2003). Children with Asperger Syndrome (AS) can be differentiated from children with autism in that, children with AS will manifest a higher verbal intelligence, and less evidence of a language delay. Comparably, both groups have significant difficulties with their pragmatic ability (Ziatas, Durkin, & Pratt, 2003).

**Theory of Mind**

One current hypothesis states that the difficulty in conversational ability in children with autism is impaired acquisition of a “Theory of Mind” (Chin & Bernard-Opitz, 2000; Ziatas, Durkin, & Pratt, 2003). Simply stated, children with autism have difficulty attributing and understanding the mental states of others as well as themselves. They also lack the ability to take on another person’s perspective (Chin & Bernard-Opitz,
In order for a conversation to take place and be relevant, the speaker and listener must adopt one another’s perspectives. This theory explains how children with autism can talk endlessly about topics of interest to them with little regard for the listener’s interest in the topic. They believe that the topic they are interested in, also interests their conversation partner, when in reality the listener may be bored or even irritated by the restricted communicative exchange (Chin & Bernard-Opitz, 2000). Other speech characteristics common to those with autism that may be related to deficits in theory of mind include: repetitive questions and statements, the inability to take turns in conversation, and difficulty maintaining a topic of conversation (Chin & Bernard-Opitz, 2000). Chin and Bernard-Opitz (2000) aimed to investigate whether training children with autism in conversational skills would improve verbal communication. Their research supported an improvement in conversational ability, specifically in maintaining conversation topics, and increased eye contact and turn taking during conversation. These findings maintain that, teaching conversation skills to children with autism can be effective in improving their communication skills.

**Generalization**

The specificity of duration and quality of conversation is limited in research in comparison of children with autism and other children (Jackson et al., 2003). Interventions that have aimed to teach social skills with adult partners have proved to not generalize to peer interactions without specific peer training (Rogers, 2000). Ozonoff and Miller (1995) found that the use of social skill groups for children with ASD was a success in the gains achieved in understanding other’s mental states but, per parent and teacher report, failed to demonstrate their ability to generalize the targeted skills to other
situations. Children with autism have difficulty transferring learned social skills to other non-clinic settings. The interventions received in an outpatient setting are effective methods of treatment but are ineffective in teaching children to perform the skills in a more natural environment (Barry et al, 2003).

**Teachers as Informants**

When researching disorders characterized by social impairment such as autism, using teachers as informants can prove to be important. They have the opportunity to observe the behavior of children with autism in a large group of peers, therefore any dysfunctions or deviations are easily identified. Parents do not typically have this opportunity (Sanford, Offord, Boyle, Peace & Racine, 1992). A correlation between teacher and parent ratings can be achieved but, there is a tendency for teachers to rate the participants slightly higher (more impaired) than the parents. A potential explanation for the occurrence of higher ratings is that teachers are rating the child diagnosed with autism or other disorders against the behaviors of typically developing children (Ehlers, Gillberg, & Wing, 1999). When rating social skills, validity may be enhanced by using a combination of information from parents and professionals (speech-language pathologist and/or teachers) (Bishop & Baird, 2001).

**Interaction**

By evaluating frequency, type, and duration of sustained interactions (at least two consecutive responses in a string of related behaviors) as well as the differences in responses to children’s versus adults’ initiations, Jackson et al. (2003) examined the responses of children with autism to others’ social bids. The results indicate that children
with autism responded less to others’ bids leading to a plausible interpretation that these children associate conversation as being need-oriented (Jackson et al., 2003). If it is true that children with autism associate conversation as need-oriented and they are motivated by the fulfillment of need, then it is likely that response to social bids will not occur. Capps, Kehres, and Sigman (1998) aimed to determine the responses to conversational bids between children with autism and children with other developmental delays. In children matched by language ability engaging in a semistructured conversation, the researchers found that the children with autism offered less of their own contributions and personal narratives to the conversations (Jackson et al., 2003). In addition to the lack of contribution to the conversation, the children with autism demonstrated a lack in ability to respond to questions and comments, indicating their inability to carry out ordinary conversations (Jackson et al., 2003).

**Social Skills Groups**

Often, children with autism are referred to out-patient clinics for social skill intervention. More research is needed to determine the efficacy of such intervention for children with autism. It has been determined that school-based social skills intervention, peer education and training for typically developing peers, can have a positive impact on the social interactions for children with autism (Koegel & Koegel, 1998; Laushey & Heflin, 2000). Outpatient clinic-based social skills interventions have emerging support for the efficacy of treating children who are the most socially impaired (Barry et al., 2003). In children with Asperger syndrome and other related pervasive developmental disabilities, social relationships were developed and maintained after receiving social skills intervention targeting nonverbal communication (Barnhill, Cook, Tebbenkamp, &
Myles, 2002). There still is a scarcity of research in the assessment of social skills among those children diagnosed with autism. There is a need for a tool that has a higher level of sensitivity to better assess social skills intervention and determine the outcomes of intervention.

**Rationale/Purpose**

This study is part of a larger study being done to examine the perception of change in teaching conversation skills to children with High Functioning Autism/Asperger Syndrome (HFA/AS) in a clinic-based outpatient group setting as well as to measure the generalization of taught conversation skills to a natural setting from an outpatient clinic-setting. There was an interest in examining teacher’s perceptions of behavior and social skills in children with HFA/AS pre and post participation in the clinic based conversation skills group. The purpose of this current study is to measure the perception of change in directly teaching conversation skills to children with High Functioning Autism/Asperger Syndrome based on pre and post questionnaires completed by teachers of the participants.

**Research Questions**

For children diagnosed with High Functioning Autism/Asperger Syndrome:

1. Is there a difference in teacher perceptions of problem behaviors before versus after participation in a clinic-based conversation skills group training program? Was there an increase or decrease in problem behavior ratings?

2. Is there a difference in teacher perceptions of affective understanding/perspective taking during conversation before versus after participation in a clinic-based
conversation skills group training program? Was there an increase or decrease in affective understanding/perspective taking?

3. Is there a difference in teacher perceptions of ability to initiate interaction during conversation before versus after participation in a clinic-based conversation skills group training program? Was there an increase or decrease in ability to initiate interaction?

4. Is there a difference in teacher perceptions of ability to respond to initiations during conversation before versus after participation in a clinic-based conversation skills group training program? Was there an increase or decrease in ability to respond to interaction?

5. Is there a difference in teacher perceptions of ability to maintain interaction during conversation before versus after participation in a clinic-based conversation skills group training program? Was there an increase or decrease in ability to maintain interaction?
CHAPTER TWO
METHODS

Subjects/Participants

The participants for this study were recruited through an autism center and a local autism society chapter in the mid-west, and included 7 children between the ages of 8 and 10 years old. The subjects for this study were the general education teachers of the participants, serving as informants.

The eligibility for participation was based on meeting the following criteria: (a) documented diagnosis of High Functioning Autism/Asperger Syndrome as determined by a multidisciplinary team with experience diagnosing children with Autism Spectrum Disorders and meeting the criteria listed under Autism in the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV-TR) (b) participation in grade/age level curriculum and/or IQ within average range (80 or above) (c) no other diagnosis that may interfere with communication such as hearing impairment (d) no other diagnosis that takes priority over High Functioning Autism/Asperger Syndrome such as a mental health issue. After the consent to participate was attained, a medical record review was done to confirm the diagnosis of High Functioning Autism/Asperger Syndrome.

Materials

The Problem Behavior Rating Scale – T (Stone et al., 1998) and the Social Skills Survey – T (Stone et al., 2000) questionnaires from the Triad Social Skills Assessment (TSSA) (Stone et al., 1998) were used to collect the observational data. The Problem
Behavior Rating Scale is a thirty item questionnaire that identifies behaviors that may be problematic and impinge upon social performance. A Likert scale rating system was used, ranging from 1-4, in which 1=not at all problematic to 4=very problematic.

The Social Skills Survey is a 51 item questionnaire that inquires both qualitative and quantitative information. A Likert scale rating system was used to determine, based on perception, how well the child demonstrates specific behaviors with 1=not very well to 4=very well. Also included were several open ended questions in regards to the child’s social interests and behaviors in relation to the classroom. A video camera and VCR were used for video recording, a “talking stick”, board games, and conversation starter cards were also used during the six week intervention.

**Procedures**

The children participating in the study received, as part of the larger study, the intervention in a small group, one time per week for 90 minutes. The conversation skills group training program taught conversation skills to children with HFA/AS. The specific conversation skills targeted during this intervention were topicalization and topic exchange in conversation. These children were taught how to identify and stay on a topic of conversation as well as ask questions and make comments on topics during conversation. The children were taught these conversation skills in weekly lessons that followed a similar template. The template was as follows:

- **Warm-Up**: open conversation and review of homework (10 min)
- **New Lesson at Table**: introduction of a new skill related to topicalization or topic exchange (20 min)
- **Comprehension Check**: a check of the children’s understanding of the new skill introduced (5 min)
• **Activity: Rehearsal and Application:** modeling of the skill introduced and guided practice using the skill (20 min)

• **Game:** review of the skill using game format (20 min)

• **Snack:** practice of the skill during less structured time (10 min)

• **Homework:** assignment of exercise to use skill at home or school (5 min)

One week prior to the start of the study, the Problem Behavior Rating Scale – T (Stone et al., 1998) and the Social Skills Survey – T (Stone et al., 2000) were completed. Near the completion of the six week conversation skills group training program the questionnaires were completed again. The ratings on the questionnaires were based on the teacher’s knowledge about the students. As the Problem Behavior Rating Scale – T (Stone et al., 1998) identified problematic behaviors, the Social Skills Survey – T (Stone et al., 2000) identified social and communicative behaviors in the following domains: affective understanding/perspective taking, initiating interactions, responding to initiations, and maintaining interactions.

**Data Analysis**

Once all questionnaires were completed and returned, descriptive statistics were calculated in an effort to determine if there was a significant difference in the perception of change in problematic behaviors on the Problem Behavior Rating Scale Stone et al., 1998) and in the domains specified on the Social Skills Survey (Stone et al., 2000). Because this data produced a difference in ratings, analysis was done to determine statistical significance. The t-test of related measures was computed with the data collected, to determine the degree of significance of the results. Data collected from the pre and post questionnaires was compared to detect the differences in the perception of
problem behaviors, affective understanding/perspective taking, initiating interaction, responding to initiations, and maintaining interaction from pre intervention responses.
CHAPTER THREE
RESULTS

A statistical analysis using the t-test for related measures was used to determine statistical significance. Out of the 7 participants diagnosed with HFA, only 5 were able to be statistically analyzed due to incomplete data for two of the participants, who were missing the pre or post questionnaire. In general, the means of the participants’ data was variable. Statistical significance was found in the decreased ratings of problematic behaviors on the Problem Behavior Rating Scale (Stone et al., 1998). The results from the Social Skills Survey (Stone et al., 2000) indicated an increase in ratings on the ability to affectively understand/perspective taking, and the ability to maintain interactions after the conversation skills group training program. There was, however, no statistical significance in an increased ability to initiate and respond to interactions with peers.

Table 1 provides the averages, pre and post, of the behaviors outlined on the Problem Behavior Rating Scale-T (Stone et al., 1998). The research hypothesis stated that, there will be a decrease in problematic behaviors, based on teacher’s ratings, after the conversational skills group training program. The null hypothesis was rejected (t=3.21, df=4, critical t=2.776, p ≤ .05). The research hypothesis was accepted. The teachers rated students as having significantly fewer mean problematic behaviors after the conversation skills group training program than before.

<table>
<thead>
<tr>
<th>Subject</th>
<th>PRE INTERVENTION</th>
<th>POST INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>58</td>
<td>49</td>
</tr>
<tr>
<td>Subject 2</td>
<td>58</td>
<td>47</td>
</tr>
<tr>
<td>Subject 3</td>
<td>70</td>
<td>58</td>
</tr>
<tr>
<td>Subject 4</td>
<td>64</td>
<td>48.5</td>
</tr>
<tr>
<td>Subject 5</td>
<td>32</td>
<td>33.5</td>
</tr>
</tbody>
</table>
The research hypotheses for the four domains identified on the Social Skills Survey (Stone et al., 2000) stated that, there will be an increase in social and communicative behaviors in the following domains: affective understanding/perspective taking, initiating interactions, responding to initiations, and maintaining interactions, based on teacher’s ratings, after the conversational skills group training program. Table 2 provides the averages of the specified social skills on the “Affective Understanding/Perspective Taking” domain on the Social Skills Survey-T (Stone et al., 2000). The null hypothesis is rejected ($t=3.33$, $df=4$, critical $t=2.776$, $p \leq .05$). The research hypothesis is accepted. The teachers rated students as having significantly better ability in affective understanding/perspective taking after the conversation skills group training program than before.

<table>
<thead>
<tr>
<th>Subject</th>
<th>PRE INTERVENTION</th>
<th>POST INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Subject 2</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Subject 3</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Subject 4</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Subject 5</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 3 provides the averages of the specified social skills on the “Initiating Interactions” domain on the Social Skills Survey-T (Stone et al., 2000). The research hypothesis is rejected ($t=2.53$, $df=4$, critical $t=2.776$, $p > .05$). The null hypothesis is accepted. The teachers rated students as having no significant difference in mean ability to initiate interactions after the conversation skills group training program than before.
Table 3. Participant Averages on the “Initiating Interactions” domain of the Social Skills Survey-T (Stone et al., 2000)

<table>
<thead>
<tr>
<th>Subject</th>
<th>PRE INTERVENTION</th>
<th>POST INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>34</td>
<td>32</td>
</tr>
<tr>
<td>Subject 2</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Subject 3</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Subject 4</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>Subject 5</td>
<td>27</td>
<td>33</td>
</tr>
</tbody>
</table>

Table 4 provides the averages of the specified social skills on the “Responding to Initiations” domain on the Social Skills Survey-T (Stone et al., 2000). The research hypothesis is rejected ($t=2.24$, df=4, critical $t=2.776$, $p>0.05$). The null hypothesis is accepted. The teachers rated students as having no significant difference in mean ability to respond to interactions after the conversation skills group training program than before.

Table 4. Participant Averages on the “Responding to Initiations” domain of the Social Skills Survey-T (Stone et al., 2000)

<table>
<thead>
<tr>
<th>Subject</th>
<th>PRE INTERVENTION</th>
<th>POST INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Subject 2</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Subject 3</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Subject 4</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Subject 5</td>
<td>10</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 5 provides the averages of the specified social skills on the “Maintaining Interactions” domain on the Social Skills Survey-T (Stone et al., 2000). The null hypothesis is rejected ($t=3.13$, df=4, critical $t=2.776$, $p \leq 0.05$). The research hypothesis is accepted. The teachers rated students as having significantly better ability to maintain interactions after the conversation skills group training program than before.
Table 5. Participant Averages on the “Maintaining Interactions” domain of the Social Skills Survey-T (Stone et al., 2000)

<table>
<thead>
<tr>
<th>Subject</th>
<th>PRE INTERVENTION</th>
<th>POST INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Subject 2</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Subject 3</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Subject 4</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Subject 5</td>
<td>17.5</td>
<td>30</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
DISCUSSION

The objective of this study was to measure teacher’s perceptions on a behavioral and social skill questionnaire following the child’s participation in a clinic based conversation skills group teaching conversation skills to children with High Functioning Autism/Asperger Syndrome (HFA/AS) based on pre and post questionnaires given to teachers of the participants. As indicated in the results in this study, the clinic-based conversation skills group training program show teacher reports of decreased problematic behaviors and increased areas of social and communicative skills in children with HFA/AS.

On the Problem Behavior Rating Scale, teachers reported positive changes for decreases in problematic behaviors such as, acting impulsively without thinking, being overly quiet, shy, or withdrawn, and acting sulky or sad. Across the four domains rated on the Social Skills Survey (affective understanding/perspective taking, and maintaining interaction), teachers reported increases in affective understanding/perspective taking and maintaining interactions. There were however, no significant differences in the teacher’s ratings of the student’s ability to initiate and respond to interactions.

Teachers are one of few possible informants that have the opportunity to see the children interacting with typically developing peers. These findings show that teacher’s perceived favorable outcomes of the social skill intervention. This study revealed that clinic-based intervention shows some promise as an effective treatment for children diagnosed with HFA/AS based on the level of significance achieved by the above measures. Perceived generalization of the communication skills taught was carried over into the school setting. The prior behaviors that proved to be problematic for the children
were significantly decreased, and they had a significant increase in their ability to effectively understand and maintain the conversations between peers, per teacher ratings.

A possibility of bias in the results should be considered, since the teachers knew the children were in the intervention program. An interesting point to be discussed is that problem behaviors were perceived to be decreased even though they were not directly addressed in the intervention sessions. This in and of itself may show good potential and unforeseen benefits of social skill intervention.

There have been studies on school based intervention (Koegel & Koegel, 1998; Laushey & Heflin, 2000) supporting their efficacy, but there is a limited body of research to support the facilitation of clinic based interventions. Outpatient clinic-based social skills interventions have emerging support for treating children with social impairments (Barry et al., 2003). Barnhill and colleagues found that children with Asperger syndrome and other related pervasive developmental disabilities were able to develop and maintain social relationships after receiving social skills intervention targeting nonverbal communication (Barnhill, Cook, Tebbenkamp, & Myles, 2002). The results of this study add to the emerging body of evidence supporting the use of social skills group training programs as effective intervention methods for children diagnosed with HFA/AS.

Results from this study indicate considerable promise for social skills intervention and the positive shift in teacher perceptions. The clinical implications may have resulted in a placebo effect. The teachers of this study were aware of the children’s participation in a social skills intervention program, thus an expectation of change may have developed. If the teachers of the participants are perceiving a positive change in behavior
subsequent to the completion of a social skills group intervention, this may also lead to an increase in positive interactions between the teacher and child.

LIMITATIONS

There were several limitations to this current study. Due to the small sample size, it was difficult to draw strong conclusions based on the current results. Some gains were achieved but, a larger sample size would give more information for analysis. Along with a greater sample size, a more extensive study would yield greater results. This study was limited in that, the intervention only lasted 6 weeks. The conversation skills group training program was conducted outside of the children’s normal setting with unfamiliar peers. The results may have differed if the intervention were conducted within the school setting with familiar peers. One of the biggest limitations to the study is the sensitivity of the questionnaire. There is little evidence to support or refute the sensitivity of the instrument used therefore it is not efficacious to comment on the reliability of the instrument used. There is a need for a tool that has a higher level of sensitivity to better determine social skills and determine the outcomes of intervention.

FUTURE RESEARCH

Studies succeeding this current project should aim to address the limitations of this study. Further research should be conducted to determine an effective treatment to enhance children diagnosed with autism’s ability to initiate and respond to interactions. Similar research should also be done with a larger sample size in conjunction with a more extensive study. Research should also be conducted with instruments sensitive enough to measure small changes in social skills, so we can utilize
other informants in a variety of settings. How might parent reports compare to the information found by the teachers? Would there be a discrepancy in results? The teachers and the parents are going to take on two different perspectives, along with a variance in opportunity to observe certain communication skills. Future research may also consider using the special education teachers as subjects and determining if the learned behaviors were maintained and if there was a change in any behaviors. Though this study added to the body of evidence supporting the effectiveness of clinic based intervention, the generalization of skills beyond the clinic setting, and positive teacher perceptions, more thorough research is needed to provide more in depth results.
REFERENCES:


Spectrum Disorders Social Skills Assessment (TSSA). *Treatment and Research Institute for Autism Spectrum Disorders (TRIAD)*. Nashville: TN.

