Peer Acceptance in Young Children with and without Communication Disorders

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PEER ACCEPTANCE IN YOUNG CHILDREN WITH AND WITHOUT COMMUNICATION DISORDERS

By

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ABSTRACT

Numerous studies have been conducted involving preschoolers with speech and language disorders, suggesting a potential relationship between their communicative abilities and social acceptance. Because social status is highly valued by children and youth, this possible relationship warrants further exploration. The purpose of this study was to further describe children with speech sound disorders (SSD) and language learning disorders (LLD) in preschool and kindergarten, to determine if there was a difference between their social ratings and social skills in relation to the ratings and social skills of their peers who are typically developing (TDP). Participants for this study included seventeen children with communication disorders and 93 classroom peers. The Rating-Scale Sociometric Measure was used to compare the peer acceptance of these two groups. The Social Skills Rating System (SSRS) was also used to assess and compare the social skills of these two groups. Results indicated that children with communication disorders were less preferred playmates according to their mean social rating and demonstrated fewer social skills according the SSRS. Children with communication disorders also demonstrated a higher occurrence of negative ratings and problem behaviors than their TDP. Speech-language pathologists, parents, and educators should consider the implications of SSD and LLD beyond the arena of academic achievement and target social language skills as well.
CHAPTER 1
LITERATURE REVIEW

Social interactions, the development of friendships, and peer acceptance are essential for the psychological adjustment and school achievement of children (Goldstein & Morgan, 2002; Fujiki Brinton, Isaacson, & Summers, 2001; Wentzel & Caldwell, 1997). The importance of opinions and perceptions of peers, family members, and teachers has been established as important factors in the development of children and ultimately how they are treated (DeThorne & Watkins, 2001). Previous research supports the notion that speech and language skills may impact the building of these necessary components of child development. A bulk of the research focuses on the social interactions and acceptance of children with autism, behavioral disorders, and severe disabilities (Black & Hazen, 1990; Gertner, Rice, & Hadley, 1994; Hazen & Black, 1989). Few have investigated social development and peer acceptance in children with Speech Sound Disorders (SSD) or Language Learning Disorder (LLD).

The general consensus for more than 20 years has been that individuals with communicative deficits are at a social disadvantage (Rice, Sell, & Hadley, 1991; Sadler, 2005; Susca & Healey, 2002). When communication skills are atypical or vary from traditional expectations, a negative perception may form. As children begin school, this perception becomes particularly influential and may lead to less successful academic and social success (DeThorne & Watkins, 2001). A few studies have examined adults perceptions of children with communication disorders. One such study, conducted by Rice, Hadley, and Alexander (1993), observed the judgments of children made by four groups of adults including undergraduate university students, speech-language pathologists, kindergarten teachers, and non-educators. These participants were presented with a 90-second audio sample of preschool children’s speech and asked to complete a questionnaire afterward. When controlled for intelligence, age, and gender, these adults consistently rated children with SSD and LLD lower than those children with typical speech and language in regard to intelligence, leadership potential, social maturity, school readiness, parental education, and socioeconomic status. Given these consistent negative judgments, it may be assumed that children with communication disorders may encounter unwarranted negative perceptions by others.
Although historically there have been negative perceptions of children with communication differences, there have been recent changes in educational practices over the last decade that may have led to increased peer acceptance of children with communicative differences or disabilities. Due to the Individuals with Disabilities Education Improvement Act (IDEA; 2004), a major revision to the public law mandating that children with disabilities be served within the least restricted environment, students with disabilities there are more likely to be educated within mainstream settings. Speech-language and other related services are now commonly provided within the classroom integrating peers with typical development (TDP) into therapy. For example in many preschool and elementary settings, inclusive models have replaced traditional pull-out service delivery models (IDEA, 2004 Public Law (PL) 108-446). The use of inclusive and mainstream practices may promote improved social acceptance of children with a wide range of abilities and disabilities. Furthermore, in the community and society at large, there has been increased focus on acceptance of differences amongst individuals. People with disabilities are more prevalent in the media and more commonly portrayed in a positive light in television programs, books, and popular movies. These recent changes may reflect an increased acceptance of differences in modern society. There is a paucity of recent research exploring current social perceptions of individuals with communicative disorders, particularly in young children.

Communication Disorders

*Speech sound disorders (SSD).* According to The National Institute on Deafness and Other Communication Disorders (2009), the prevalence of SSD in preschool children is 8 to 9 percent. By the first grade, roughly 5 percent of children have noticeable speech disorders; the majority of these speech sound disorders have no known cause. SSD include difficulties with fluency, articulation, and phonological processes. In 2008, 94% of the caseloads of school based speech-language pathologists consisted of children with SSD. Children with these deficits have clinically significant difficulties producing speech sounds of their language expected for their age. The extent of these sound errors or patterns of errors affect the intelligibility of their speech and in some cases renders them unintelligible to both familiar and unfamiliar listeners. Generally, SSD occur in isolation without cognitive, social-emotional, or language deficits.

SSD, although generally thought to be characterized by speech production difficulties alone, may also have social implications. Few studies have examined the potential relationship
between of SSD and peers’ perceptions. In 1991, Crowe Hall examined the attitudes of fourth and sixth graders toward peers with and without mild articulatory errors. The examiner developed videotapes of female and male speakers who had typical speech and those who exhibited combinations of /r, s, z/ articulation errors. Participants included 348 children who reviewed the videotapes one by one. After each speaker, participants responded to three questions for that particular speaker: (a) What do you think of this child as a talker, (b) What do you think of this child as another 4th or 6th grader, and (c) What do you think this child will be like as a teenager? Significantly more negative attitudes were found toward peers exhibiting articulation errors when compared to those without speech errors. Results of this study indicate that even mild articulation disorders may have a negative impact on the attitudes and perceptions of peers.

In 2001, DeThorne and Watkins investigated the perceptions of children with and without communication disorders. A group of listeners comprised of undergraduate students, speech-language pathologists, teachers, and sixth graders, were asked to listen to 2 ½-minute language excerpts of three preschool-age boys via audiotape and then respond to each using a modified version of the questionnaire used in the Rice et al (1993) study. The questionnaire included questions like, “How smart do you think this child is?” “Would other children like this child” “What do you think about this child” and “Does this child seem socially mature?” The findings of this study paralleled those of its predecessor in that the child with a LLD received the lowest average rating when judged by adults. All groups of listeners consistently perceived the child with a communicative deficit more negatively than the typically developing children. Specifically, frequent negative comments were noted on the following aspects of speech and language: word choice, fluency, and articulation. The fact that listeners noticed and commented negatively on developmentally appropriate articulation errors suggests that errors of this nature are salient and may put children with articulation difficulties at risk for negative perception by their peers, teachers, and others.

Language learning disorders (LLD). According to the American Speech, Language, and Hearing Association (2008), a language disorder is the impaired comprehension and/or use of spoken, written, and/or other symbol systems. The disorder may involve the form, content, and/or function of language in communication. Estimates of the prevalence of language difficulty in preschool children are between 2% and 19%.
Previous research supports a strong relationship between language development and social cognition; children with better linguistic skills tend to have a higher level of socio-cognitive competence (Jenkins & Astington, 1996). The combination of language competence and social cognition plays a fundamental role in the development and maintenance of new relationships, including the ability to express emotions, share information, and repair misunderstandings. Given the relationship between language and social cognitive competence, it might be expected that children with communication disorders would demonstrate difficulties with social interaction skills. Because children with LLD lack the linguistic skills necessary for building and maintaining relationships, they may be at a disadvantage for forming successful peer relationships and may be at heightened risk for social difficulties and poorer self esteem (Craig, 1993; Jerome, Fujiki, Brinton & James, 2002). Previous studies have shown that speech and LLD may contribute to social interaction differences and limited popularity (Craig & Washington, 1993; Ford & Milosky, 2003; Gertner, Rice, & Hadley, 1994; Hadley & Rice, 1991; Rice, Sell, & Hadley, 1991; Spackman, Fujiki, & Brinton, 2006).

Social Interaction Differences of Children with Language Learning Disorder

Researchers suggest that children with LLD may interact differently than their peers with typical development. These children exhibit difficulties in initiating social interactions, often employing nonverbal means (Craig & Washington, 1993) in participating in ongoing interactions (Hadley & Rice, 1991) and in directing initiations to their peers rather than adults (Rice, Sell, & Hadley, 1991). Rice, Sell, and Hadley (1991) observed the conversational responsiveness of children with SSD and LLD in a natural setting. From their observations, they found that the participants with LI engaged in fewer instances of active conversation, were “less responsive” to conversational initiations, and were less direct in their communication style. It was noted that children with LLD shortened their verbal responses and were often ignored by their peers. Findings from this study also suggested that children as early as three years of age are aware of their communicative abilities, as well as the capabilities of their peers. Rice and colleagues concluded that children with LLD may recognize their language weaknesses and choose to limit their responses based on this awareness. One may also infer that children include this awareness in their selection of playmates as well.

Peer Acceptance
Peer acceptance has become a focus of research over the past 20 years. Hence, researchers have developed sociometric measures for use with children to determine whether differences in social interaction skills affect perceptions of peers and have other long-term effects (e.g., friendship development). Peer acceptance is defined as a child’s likeability amongst other children (Doll, 1996). It is dependent upon how other children perceive a child based on how much they would like to be around that child. Acceptance can be related to a child’s personality and appearance (Young & Cooper, 1944), ability to enter and fit into groups (Dodge, Schlundt, Schocken, & Delugach, 1983), and a child’s prosocial behaviors or social skill deficits (Ladd, 1981).

Numerous investigators have noted a possible relationship between communicative abilities and peer acceptance (Fujiki, Brinton, & Todd, 1996; Craig & Washington, 1993; Gertner, Rice, & Hadley, 1994). Children with SSD and LLD are often less preferred playmates and tend to be subjects of peer rejection (Fujiki, Brinton, Hart, & Fitzgerald, 1999). These children often rate themselves in the school setting as more lonely than their peers with typical development and as having significantly fewer peer relationships, according to the William and Asher Loneliness questionnaire (Fujiki, Briton, & Todd, 1996). Black and Hazen (1990) found that children who communicated differently were often more disliked than their normal developing peers.

Gertner, Rice, and Hadley (1994) employed a peer nomination task to study the possible influence of communicative competence on peer preferences with a preschool classroom. Thirty-one participants were asked to select three peers they would like to play with and three they preferred not to play with. Based on their selections, it was concluded that typically developing children were most frequently liked, receiving more positive nominations overall, whereas children with SSD and LLD were more frequently disliked, receiving more negative nominations overall. Given that children recognize their peer’s communicative abilities, one might expect that children choose their playmates based on communicative competence, amongst other factors. This awareness of differences may contribute to why children with SSD and LLD are viewed as less desirable playmates. Typical children may find it more difficult to interact with children who struggle to communicate causing them to eventually stop trying. This could result in exclusion reducing the likelihood that children with SSD and LLD would have adequate opportunities to experience acceptance amongst their peers.
**Characteristics of Preferred and Non-preferred Peers**

Children as young as preschool age are capable of developing and maintaining friendships (Dunn, 1993), but very few studies have investigated the characteristics that make these relationships compatible between two peers. Overall, two fairly independent dimensions of friendship features exist—positive and negative characteristics. Primarily identified in research are the following influential factors: similarities in children, prosocial behaviors including sharing, cooperation, and helping, and aggressive and withdrawn behaviors.

A study conducted by Kupersmidt, DeRosier, and Patterson (1995) examined and described the characteristics of members within friendship pairs and tested the similarity-attraction hypothesis which suggests that people who are similar in personal attitudes and attributes will be attracted to each other, and thus, are more likely to become friends (Byrne & Nelson, 1965). Participants from this study included 554 lower to upper-middle class third and fourth grade students from a small, southern public school system. Researchers utilized archived school records to obtain individual age, gender, race, and standardized achievement scores; free or reduced lunch status was used to determine socioeconomic level. The *Activity Play Checklist* (Kupersmidt, Griesler, & Patterson, 1993) and peer sociometric nomination methods were used to determine reciprocated friendships. To determine aggressive or withdrawn behaviors, children were asked to nominate three peers who best fit two descriptions: children who fight a lot or children who play or work alone a lot. Of the school and home friendship dyads, 90% consisted of same-sex pairs, more than two-thirds consisted of same-race dyads, and more than one-half of the friendship pairs included children of similar socioeconomic status. Primarily, friendship dyads also consisted of children who were not considered withdrawn or aggressive. Achievement on standardized testing did not predict friendships; however, there were no friendships between high and low achieving students. Results of this study indicate that as the number of similar attributes increased, the likelihood that children would be friends also increased. In summary, similarities in terms of demographic, academic, and behavior may influence peer preference selection.

Prosocial behaviors can be grouped into three distinct categories: sharing, helping, and cooperation (Marion, 2003) and a relationship between it and friendships has been documented (Wentzel, Barry, & Caldwell, 2004; Wentzel & Caldwell, 1997; Burk, 1994). A study conducted by Seblanc (2003) assessed specific features of preschool children’s friendships to determine
their possible relationship to prosocial and aggressive behaviors using the *Friendship Features Questionnaire* (FFQ). The FFQ was developed using items from self-report questionnaires of older children’s friendship quality since features of young children’s friendships were related to social behavior and social status in ways similar to studies of older children (Furman & Adler, 1982; Furman & Buhrmester, 1985; Parker & Asher, 1993). Findings were as follows: supportiveness in friendships was positively correlated with prosocial behavior, conflict within friendships was positively correlated with aggression and peer rejection, and exclusive/intimate friendships were negatively associated with peer acceptance. The results of this study tell us that when prosocial behaviors increase, so does the quality of friendships. Thus, as aggressive behaviors increase, so does the amount of conflict within relationships and the likelihood that a child will experience rejection. Interestingly, when children demonstrate intimate or exclusive friendships they are also at risk for rejection from their peers outside of that exclusive relationship.

**Aims**

Because social acceptance is highly valued by young children and youth, the relationship between communication status and peer acceptance warrants further exploration. The purpose of this investigation was to further explore the peer acceptance and social cognition of children with and without communication disorders in preschool and kindergarten to describe their social ratings by classroom peers and social skills as determined by a standardized social skills rating system completed by parents and to describe common characteristics of preferred and non-preferred playmates. The specific research questions were: (1) Do differences between the peer ratings of young children with SSD and LLD and children with typical language skills exist? (2) What factors influence the selection of preferred and non preferred playmates? (3) Do differences between the social skills of young children with communication disorders and children with typically developing communication skills exist? (4) Is there a relationship between peer ratings and social skills of children? It was hypothesized that the communicative deficits in children with SSD and LLD would have some impact on their peer acceptance and present level of social skills. It was also hypothesized that peer ratings and social skills would have a positive relationship in that as social skills increase, peer ratings would also. Characteristics of preferred and non-preferred playmates generated from the response of peer raters were hypothesized to reflect those of previous research. If the findings of Rice et al. (1991)
are true in that children as young as the age of three years old are aware of their communicative abilities, we anticipate that comments regarding communication status might arise.
CHAPTER 2

METHOD

Participants
Participants for this study included 110 preschool and kindergarten students, 49-91 months of age (mean age=69.20; SD=8.34) with (n=17) and without communication disorders (n=93). Of the participants, 56 were male and 54 were female; 63 were Caucasian, 24 were African American, 12 were Hispanic, and 2 were multiracial; 48 participants were enrolled in preschool and 62 were enrolled in kindergarten. Invitations to participate were distributed to all children in mainstream preschool and kindergarten classrooms in two public schools within a small rural community in the panhandle of Florida. All children of parents who provided informed consent were accepted and included for participation.

Participants with SSD and LLD. Children diagnosed with speech sound disorders or language learning disorders were referred by a school based speech-language pathologist. Children with language impairment met the following criteria: 1) unremarkable hearing status as indicated by standard audiometric screening procedures and no record of chronic middle ear infections 2) nonverbal IQ above a standard score of 85 as measured by the Preschool Test of Non-Verbal Intelligence (PTONI; Ehrler & McGhee, 2008) for children under the age of five and the Test of Non-Verbal Intelligence (TONI; Brown, Sherbenou, & Johnsen, 1990) for children five to seven years of age 3) standard score of 85 or below on the language production and/or comprehension subtests of the Clinical Evaluation of Language Fundamentals-Preschool (Semel, Wiig, & Secord, 1987) for children under the age of five and the Clinical Evaluation of Language Fundamentals-R for children five to seven years of age 4) no formal diagnosis of an emotional or behavioral disorder as determined by school district records and placement data 5) no apparent physical or visual handicaps 6) mainstream classroom placement. Children with SSD met the following criteria: 1) unremarkable hearing status as indicated by standard audiometric screening procedures and no record of chronic middle ear infections 2) nonverbal IQ above a standard score of 85 as measured by the Preschool Test of Non-Verbal Intelligence for children under the age of five and the Test of Non-Verbal Intelligence (TONI; Brown, Sherbenou, & Johnsen, 1990) for children five to seven years of age 3) standard score of 85 or below on the Goldman Fristoe Test of Articulation (GFTA; Goldman & Fristoe, 2000) 4)
standard score of 85 or below on the Children’s Speech Intelligibility Measure (CSIM; Wilcox & Morris, 1999) 5) no formal diagnosis of an emotional or behavioral disorder as determined by school district records and placement data 6) monolingual native English speakers 7) no apparent physical or visual handicaps 8) mainstream classroom placement. The standardized tests were administered to participants with SSD or LLD who had not received these measures within 12 months of the onset of the study by the primary investigator and two graduate research assistants who were trained in the administration of each test. Individual demographic characteristics, assessment scores, and social ratings and skill scores of the children with communication disorders can be found in Appendices A.

_TDP participant information._ Once children with SSD and LLD were identified, all students from the same classrooms were recruited for participation in the sociometric rating-scale and social skills questionnaire. Peer raters did not demonstrate any identifiable communicative or emotional disabilities based on observation and teacher report. Complete information for participants can be found in Table 1.

Table 1. Demographics and Mean Scores for TDP.

<table>
<thead>
<tr>
<th></th>
<th>Peers with typical development (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>69.58 (8.21)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>White 72%</td>
</tr>
<tr>
<td></td>
<td>African American 8%</td>
</tr>
<tr>
<td></td>
<td>Hispanic 13%</td>
</tr>
<tr>
<td></td>
<td>Mixed 6%</td>
</tr>
<tr>
<td>Mean Social Rating</td>
<td>2.32 (.37)</td>
</tr>
<tr>
<td>Mean Social Skill Score</td>
<td>100.05 (15.78)</td>
</tr>
<tr>
<td>Mean Problem Behavior Score</td>
<td>99.89 (15.51)</td>
</tr>
</tbody>
</table>

_Assessment Instrument & Administration_
The Rating-Scale Sociometric Measure (Singleton & Asher, 1977) and Social Skills Rating System (SSRS; Gresham & Elliot, 1993) were used to collect data regarding the peer acceptance and social skills of children with and without communication disorders.

**Rating-Scale Sociometric Measure.** The rating technique detailed in Asher, Singleton, Tinsley, and Hymel (1979) was used to collect the children’s ratings of likeability for all participating classmates. Test-retest reliability of the rating-scale measure has been suggested to be superior to that of peer nomination measures (Olsen & Lifgren, 1988). This scale involves the use of photographs of the participants to elicit peer ratings. Therefore, before the procedure began, each participant’s photograph was taken against a standard background and displayed using a computer-generated slideshow. Photographs were used to eliminate any potential memory problems that might occur from relying on identification by name only (Asher et al., 1979; Cassidy & Asher, 1992).

To ensure that participants had experienced adequate time to form peer relationships within the classrooms, the administration of this procedure took place 9 months into the school year. Administration of the rating-scale sociometric measure was conducted in a quiet location on the child’s school campus. To ensure familiarity of all peers, subjects were asked to identify each classmate’s photograph by name before the procedure began. Procedures used to conduct this measure were based on those described by Asher and colleagues (Asher et al. 1979). Individually, the primary investigator instructed each rater to assign one of three faces to each classmate’s photograph, according to how much they liked to play with that person. The face selections depicted: (1) a happy face describing *children you really like to play with*, (2) a neutral face describing *children you kind of like to play with*, and (3) a sad face describing *children you do not like to play with*. Directions were simple and repetitive. The peer ratings were scored on a scale of 1 to 3, with 1 indicating they did not like to play with that child, 2 indicating they “kind of” liked to play with that child, and 3 indicating that they really liked to play with that child. After assigning a face to a peer, the rater was then asked, “What do you like or dislike about playing with ____” or “Why do you like or not like to play with ____.” If a peer rater assigned a neutral face to a child he or she was asked, “Can you tell me more about ____.” All verbal responses were audio recorded and transcribed at a later time.

**Social Skills Rating System.** The SSRS is a standardized, norm-referenced instrument that provides an assessment of social skills and problem behaviors of children through individual,
parent, and teacher ratings. For the purpose of this study, SSRS forms were sent home with each participant and completed by a parent or guardian. Teacher ratings were not obtained due to time constraints and the participants of this study were too young to complete independent self-ratings. Each questionnaire contained 34 to 57 items using a 3-point scale to describe social skills and behaviors including cooperation, assertion, responsibility, empathy, and self-control. A sample of questions included in this measure can be found in Appendix B. An analysis of internal consistency yielded average coefficient alpha reliabilities (across all forms and educational levels) of .90 for the Social Skills scale and .84 for the Problem Behaviors scale.

**Analyses**

Three sociometric scores were computed for each participant including: (1) the percentage of positive nominations received from all classmates; (2) the percentage of negative nominations received from all classmates; and (3) a mean social rating, the average of all ratings received from peers on the 1-3 rating-scale sociometric measure. A Mann-Whitney U test was used to determine significance between the groups.

From the audiotapes containing peer rater responses, the primary investigator and an undergraduate research assistant transcribed each statement into a Microsoft Word document. From these statements, the primary investigator examined and assigned comments to a positive or negative category before identifying commonalities in children’s responses and grouping them by theme (e.g., aggressive behaviors, personality, communication, appearance). The total number of statements was calculated and a percentage for each category was derived to determine characteristics that make preferred and non-preferred playmates. All 524 peer rater responses were categorized by the primary investigator and a graduate research assistant. The mean of agreement was 90%.

SSRS forms were collected from teachers and scored by the primary investigator and an undergraduate research assistant. The mean agreement for 25% of the SSRS forms was 94%. Scores were entered into a database to calculate the mean and standard deviation between communication groups. A bivariate correlation procedure was used to examine the potential relationship between the children's social skills score, problem behavior score, and their mean social rating.
CHAPTER 3

RESULTS

Rating-Scale Sociometric Measure

Mean social ratings between groups differing in communication status. Descriptive statistics were calculated to compare the sociometric ratings of children with communication disorders and those with typically developing speech and language skills. The participants’ scores on the rating-scale sociometric measure were entered into a database and used to calculate the percentage of positive and negative ratings, and the mean and standard deviations. The mean social rating for TDP was 2.32(.37) with ratings ranging from 1.36 to 3.0. The mean social rating for children with communication disorders was 2.05(.45) with ratings ranging from 1.89 to 2.82. See Table 2.

Table 2. Mean social ratings between groups differing in language ability.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Social Rating (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peers with typical development</td>
<td>93</td>
<td>2.32 (.37)</td>
</tr>
<tr>
<td>Children with Communication Disorders</td>
<td>17</td>
<td>2.053 (.45)</td>
</tr>
</tbody>
</table>

A general linear model was also used to compare the mean social ratings between the two communication groups. Results indicate that communication status accounted for a significant portion of the variation of peer ratings on the rating-scale sociometric measure (p = .01). While it only accounted for a small portion (approximately 5%), the analyses were underpowered due to small N.

Rating differences between groups differing in communication status. Mean percentages of positive and negative ratings between groups differing in communication status were also examined. Descriptive data were calculated to determine the mean percentage of positive and negative ratings across groups. More than one-half, 55%, of the ratings assigned to TDP were positive and only 23% of the ratings were negative. Children with communication disorders received an equal percentage, 39%, of both positive and negative ratings. The proportions of positive, neutral, and negative ratings are provided in Table 3.
Table 3. Proportions of Rating Types between Language Groups

<table>
<thead>
<tr>
<th></th>
<th>Peers with typical development (N=93)</th>
<th>Children with Communication Disorders (N=17)</th>
<th>(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Ratings</td>
<td>55%</td>
<td>39%</td>
<td>-16%</td>
</tr>
<tr>
<td>Neutral Ratings</td>
<td>22%</td>
<td>22%</td>
<td>0%</td>
</tr>
<tr>
<td>Negative Ratings</td>
<td>23%</td>
<td>39%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Based on visual inspection of the data, children with communication disorders received fewer positive ratings and more negative ratings overall when compared to children their TDP. Both groups received a relatively equal distribution of neutral ratings.

A Mann-Whitney \(U\) test was conducted to evaluate the hypothesis that children with typical communication skills would be rated higher, on the average than children with communication disorders on a rating-scale sociometric measure. The results of the test were significant, \(z = -2.174\). \(p = .03\). When rank ordered, children without communication disorders had an average rank of 58.32, while children with communication disorders had an average rank of 40.06.

*Social Skills Rating System*

Descriptive statistics were calculated to determine if a difference existed between the two communication groups in relation to the SSRS and it's subtest, problem behaviors. TDP demonstrated an average social skills score of 100.05 (15.78) while children with communication disorders demonstrated a mean score of 92.78 (21.89). Thus, the parents of children without communicative deficits viewed them as having stronger social skills than the parents of children with communication disorders. TDP averaged a mean score of 99.89 (15.51) on the problem behaviors subtest while children with communication disorders averaged 108.69 (16.34). These scores indicate that children with communication disorders demonstrate a higher incidence of
problem behaviors than their TDP according to the responses given by their parents. The mean social skills scores and mean problem behavior scores between groups can be found in Table 4.

Table 4. Mean Social Skills Scores and Problem Behavior Scores Between Communication Groups

<table>
<thead>
<tr>
<th></th>
<th>Mean Social Skills Score (SD)</th>
<th>Mean Problem Behaviors Score (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peers with typical development</td>
<td>100.05 (15.78)</td>
<td>99.89 (15.51)</td>
</tr>
<tr>
<td>Children with Communication Disorders</td>
<td>92.78 (21.89)</td>
<td>108.69 (16.34)</td>
</tr>
</tbody>
</table>

Relationship Between Rating-Scale Sociometric Measure and SSRS

A weak positive relationship was evidenced between SSRS and mean social ratings, \( r = .24, p = .05 \), indicating that higher scores on the SSRS were generally associated with higher social ratings and in contrast, low scores on the SSRS were associated with lower social ratings. A moderately strong negative correlation was found between Social Skills Scores and Problem Behavior Scores, \( r = -.55 \), that was highly significant \( p = .01 \). The moderately high value of \( r \) indicates the variables have a somewhat negative correlation. In other words, high Social Skills Scores were associated with low Problem Behavior Scores and low Social Skills Scores were associated with high Problem Behavior Scores. There was not a significant relationship between scores on the Problem Behavior Scores and Mean Social Ratings \( r = -.178 \).

Characteristics of Preferred and Non-Preferred Playmates

According to the 524 responses given by peer raters, children primarily chose preferred playmates based on three comments: (1) established friendships (31%), (2) prosocial characteristics (14%), and (3) similarities (11%). The category for established friendships consisted of comments describing solidified relationships like, “he/she is my best friend,” “we always play together,” or “he/she is part of the group.” The prosocial category consisted of comments like, “he/she is nice to me,” “he/she is very friendly,” or “he/she helps me.” The similarities category contained comments made by children that indicated they were similar in
some way, particularly in enjoyment of the similar activities. For example, this category consisted of comments like, “we both like to play dinosaurs,” “we always play soccer together,” or “he/she likes Spongebob, too!”

Primarily, non-preferred playmates were described by peers as having: (1) negative personality characteristics (12%), (2) non-established friendships (10%), and (3) negative behaviors (8%). The negative personality characteristics category contained comments that reflected behaviors opposite of those considered prosocial like, “he/she is mean,” “he/she is selfish,” or “he/she is rude.” The non-established friendships category consisted of comments describing a lack of social connection or relationship like, “I play with other friends,” “he/she is not my friend,” “he/she always play with someone else,” or “we don’t play together.” The negative behaviors category is best described as containing comments that reflected aggressive or problematic behaviors. Example comments for this category were, “he/she spits on me,” “he/she throws sand at people,” “he/she gets in trouble a lot.” See Table 6 for complete percentages and categories. Table 5 provides specific percentages of the positive and negative comments provided by students.

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<th>Negative Comments Categories</th>
<th>Number of comments</th>
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CHAPTER 4
DISCUSSION

Peer acceptance has been identified as a factor in the development of children’s social, mental, and overall success in school (e.g., see Parker, Rubin, Price, & DeRosier, 1995 for a review). This descriptive study examined the social ratings and social skills of children with communication disorders and their typically developing classmates as determined by peer ratings and parent questionnaire.

Key Findings

Peer acceptance. It was hypothesized that a clear difference would appear between the mean ratings of children with communication disorders and their TDP in that those with speech or language deficits would be assigned lower social ratings by their peers overall. The results of this study provide further quantitative and qualitative support to the idea that children whose speech and language skills are below normal expectation are likely to experience lower levels of peer acceptance and higher instances of rejection. Collectively, the mean social ratings for this study were significantly lower for the group of children with communication disorders when compared to the group of TDP. These findings suggest that ample speech and language skills are a valued component in the establishment and maintenance of friendships in early childhood and that children with communication disorders may be less equipped to offset these demands. The findings of this study are consistent with the previous research of Gertner, Rice, & Hadley (1994) and Fujiki, Brinton, Hart, and Fitzgerald (1999) in that the majority of the children with speech and language difficulties received lower mean peer acceptance ratings, fewer positive ratings, and more negative ratings when compared to their classroom peers.

Characteristics of preferred and non-preferred playmates. It was hypothesized that children participating in this study would collectively identify similar attributes and prosocial skills as the primary reasons why they preferred to play with certain children. In terms of non-preferred playmates, researchers hypothesized that children would identify aggressive behaviors and poor communication skills as delineating factors. Over 500 child responses were analyzed and categorized to determine the primary characteristics of preferred and non-preferred playmates in this sample. The responses given by preschool and kindergarten participants
indicate the positive role of similarities, established reciprocal relationships, and prosocial behaviors, as well as the negative role of aggressive or problematic behaviors in peer acceptance.

Participants of this study identified the role of preexisting relationships as the number one reason a playmate was preferred. When this established relationship did not exist, it was the second most common reason children were considered non-preferred playmates. This feature has not been identified in previous research, but is aligned with the notion that children as young as preschool can develop and maintain friendships. It may be assumed that by the end of one school year, children have had adequate time to select playmates and develop exclusive friendships. This exclusivity may be perceived as both a positive and negative to peers. Aside from that, children at this age may not have the lexicon needed to be able to articulate exactly what features they find preferred for playmates and instead utilize generic statements like, “we are best friends.”

Prosocial behaviors were identified as the second most frequent characteristic of preferred playmates described by participants, which is consistent with previous research findings (Wentzel, Barry, & Caldwell, 2004; Wentzel & Caldwell, 1997; Burk, 1994; Burk & Silvern, 1996). This information suggests that preschool age children and older may choose playmates dependent on how well they are able to cooperate, share, and help one another. This finding may help identify key areas to target when providing intervention to this population. Children with communication disorders, specifically those with LLD may lack the linguistic skills to repair communication breakdowns causing them to be perceived as antisocial.

The third most frequent characteristic category generated from peer responses, similarities, is a well-established feature of friendships (Kupersmidt, DeRosier, & Patterson 2005). The comments that related to similarities in this sample were primarily related to similar interests in particular activities; very few comments described external factors as the basis of preference or non-preference. While few children articulated external similarities or dissimilarities, (e.g. gender, race) an analysis of reciprocated friendships may have identified homogeneity within groups. Only 2% of those comments were related to gender in which boys stated their non-preference for playing with girls.

Only five comments were made regarding communication skills from the entire sample of responses. Thus, communication skills were not frequently articulated as features of preferred or non-preferred playmates indicating that children this young may not be mature enough or self-
aware of how speech and language skills affect their preferences. It should be noted that of the five comments, all were negative comments like, “he/she doesn’t talk good” and “he/she goes to speech” and were directed toward children with speech or language deficits.

*Social Skills Rating System and its relationship to Peer Acceptance.* According to the mean scores derived from the SRSS, differences in the social skills of children with communication disorders and those without differed descriptively, yet only a weak relationship was observed between the two variables. This may indicate that a parent’s perspective of social skills in the home environment is not consistent with those observed in a school environment.

*Individual Differences*

As a group, the children with communication disorders received lower sociometric ratings on average and were described as having few social skills than their peers with typical development. Despite this general trend, individual differences were inherent among participants. Some of the children who were identified as SSD or LLD demonstrated higher sociometric ratings and social skills while some unidentified children received lower sociometric rating and lower social skills.

The speech and language standard scores did not appear to be associated linearly with low and high social ratings or low and high social skills scores. Although, the two children who scored the lowest on articulation and speech intelligibility measures and also demonstrated a combination of below average social skills and a high frequency of problem behaviors were rated the lowest of all participants in terms of peer acceptance. On the other hand, children who demonstrated a high level of social skills and within normal expectations of problem behaviors, but still scored below the norm on speech or language assessments were rating relatively positive. Understanding exactly what factors contributed to these differences is to be speculated.

While no outliers were observed, several factors may have contributed to differences observed between participants. One could speculate that socioeconomic status and/or ethnicity may have contributed to the low levels of social acceptance of some participants, being as the elementary school from which participants were recruited was predominantly attended by Caucasian students of middle socioeconomic status. Although, there is no way to scientifically qualify these observations. The notion that social ratings may be influenced by personal appearance or other physical characteristics is supported by previous research (Young & Cooper,
1944). Other factors may have also influenced social ratings, such as academic performance, behavior, or personality.

**Implications**

Because children with SSD and LLD struggle with their communicative abilities as well as their academics, having positive peer relationships would likely provide these children with support in the school setting. Although explicit speech and language therapy are important, these intervention targets alone may not be enough to ensure a positive school experience for children with communication disorders. Research establishing that these children are at risk for social difficulties that may adversely affect their emotional development and quality of life is necessary. Therapy goals and mainstream instruction targeting social interaction, conversation turn taking and maintenance, and prosocial behaviors may be a necessary focus placed in the elementary school curriculum seeing as there were children with and without communication disorders than averaged lower mean social ratings and SSRS scores than expected in this sample. Doll (1996) noted, “Indeed, leading developmental researchers emphatically insist that social competence needs to be recognized as core responsibility of schooling” (p.166). Considering this social-linguistic disadvantage, children with communication disorders may benefit from additional intervention to facilitate social interactions such as social scripts, social stories, or instruction on communication repairs.

**Limitations**

There are a number of limitations in the present study that are important to consider when interpreting the findings. Despite these limitations, this study adds to the growing body of literature connecting communication skills to peer acceptance and social cognition. Although an attempt was made to insure that the participants included in this study were reflective of young children with and without communication disorders, randomized sampling was outside the scope of this project. Therefore, a convenience sample was utilized. Thus, the small and unequal number of participants within communication groups limited the internal validity and the generalize ability of this study. A further limitation of the study was the method for identifying language groups. Mutually exclusive language groups could not be fully ensured without conducting formal testing of all participants involved in the study, including those considered to have typically developing speech and language skills. Again, due to time constraints and the nature of the project, speech and language testing was not conducted on TDP but instead criteria
for inclusion were based on the absence of diagnosis or identification of speech or LLD. Future studies may want to consider screening typical peers for cognitive and linguistic skills to be used as a continuous variable instead of grouping. This study attempted to derive characteristics of preferred and non-preferred playmates from verbal responses from children based on the question, “What do you like or dislike about playing with that child?” However, cognitive and linguistic limitations may prevent children of this age from accurately answering explicit questions of this nature. These responses are a unique aspect to this study, but when used in isolation should be interpreted with caution. When used in conjunction with play observation, and parent or teacher inferences about the nature of these relationships more reliable information may be derived.

Suggestions for Future Research

It must be noted that while peer acceptance is important to the creation of a positive self-concept, the quality and number of friendships may play a more important role in this development. Parker and Asher (1993) found that well-accepted children without mutual friendships report more loneliness than well-accepted children with friends and vice versa. Future research is needed to explore the relationship between self-image, popularity, and the quality of friendships amongst children with communication disorders.

In the area of popularity, future researches may want to explore this concept across different contexts. Instead of asking children to broadly choose who they would most like to play with, researches might specify different types of play such as who they’d like to play video games, dress up or make believe, or on the playground with. Researchers might also include academic contexts like, “who would you like to work on math homework/class work with” or “who would you like to write a story with.” It would be interesting to see if the children with communication disorders were more frequently chosen as partners for less linguistically challenging assignments or activities.

Further investigation is warranted to further explore the social implications of speech and LLD across a variety of ages and personal characteristics. Additional research is also needed to examine other factors that influence the acquisition of social skills and the peer relationships of children with communication disorders. Future studies should include a larger sample size, broader age ranges, and employ methods for screening typical peers as well as those identified with communication disorders. Future research should also investigate other mediating factors that may off-set or compensate for speech or language difficulties by completing a more
extensive study of children with communication disorders who have high social ratings. Expanding the typical 1-3 point rating scale to a 1-5 point scale may also benefit future studies, allowing for more flexibility amongst ratings.
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*Clinical Evaluation of Language Fundamentals **Goldman Fristoe Test of Articulation ***Children’s Speech Intelligibility Measure ****Test of Non-Verbal Intelligence *****Mean Social Rating ******Social Skills Score *******Problem Behavior Score
APPROVAL MEMORANDUM (for change in research protocol)

Date: 4/23/2009

To: Brittany Geiger

Address: 26818 NE High Hope Lane Hosford, FL 32334
Dept.: COMMUNICATION DISORDERS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research (Approval for Change in Protocol)
Project entitled: Peer acceptance and social competence of children with speech and language impairment

The form that you submitted to this office in regard to the requested change/amendment to your research protocol for the above-referenced project has been reviewed and approved.

Please be reminded that if the project has not been completed by 2/10/2010, you must request renewed approval for continuation of the project.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Carla Jackson, Advisor
HSC No. 2009.2647
APPENDIX C

PARENTAL CONSENT FORM
PARENTAL INFORMED CONSENT FORM

This research is being conducted by Brittany Geiger, a student at Florida State University under the direction of Dr. Carla W. Jackson, Assistant Professor in the Department of Communication Disorders. Your child has been invited to participate in this study because he or she is between the age of three and seven years old.

The Study: I understand the purpose of this research project is to further explore the relationship between speech and language impairment and peer acceptance and social cognition. I understand that if my child participates in the project he/she will be engaged in a peer acceptance task. Individually, your child will be asked to look at photos of their classroom peers and assign a smiley, neutral, or sad face to each child based on how much they like to play with each one. I understand that my child will be pulled out during the school day to participate in a onetime 10 minute session. This session will occur at the convenience of your child’s primary teacher. The Social Skills Rating System is a parent questionnaire that assesses the social competence of preschool and elementary age children. I understand that I will be asked to complete this questionnaire and return it to my child’s classroom teacher in a sealed envelope. If your child has an identified speech impairment, he/she will be asked to complete a 10 minute speech intelligibility measure at the convenience of his/her classroom teacher. During this assessment, your child will be asked to repeat or read aloud from a list of words. I understand that I may be present at the time of data collection if I choose to do so. If I am not able to be present, I understand that my child will be allowed to take breaks or cease participation at any time.

Voluntary Participation: I understand my child’s participation is totally voluntary and that my child may stop his/her participation at any time. I may withdraw my consent any time that I decide to stop my child’s participation. I freely and voluntarily and without element of force or coercion, consent to my child participating in the research project entitled “Peer Acceptance and Social Cognition of Children with Speech and Language Impairment”. Any questions I have about the study will be answered by Brittany Geiger or Dr. Carla W. Jackson.

Confidentiality: My child’s data will be kept confidential to the extent allowed by law. No one outside of the primary investigator will have access to your child’s peer ratings. Each child will be given a randomly selected code as identification. In addition, information identifying the specific child and his or her data files will be kept in a locked filing cabinet accessed only by the investigators. This data, including the code identifiers, will be destroyed by 2014. I am aware that a photograph of my child will be taken and used in the procedure. All photographs will be destroyed at the conclusion of the procedure. If this work were to be published your child’s identity would not be revealed. I understand that the information obtained in this study may be stored in database to be used in future research.

Risks and Benefits: I understand there are minimal risks involved in this study. In the event that my child becomes fatigued, anxious, or would like to stop, he/she will be allowed to stop or take breaks at any time. While there is no direct benefit or compensation to my child and/or I if I agree to have my child participate in this study, I do understand that this research may provide more information regarding peer acceptance and social competence and speech/language impairment. I understand that I may contact Brittany Geiger at (850) 566-0630, or Carla Jackson, Department of Communication Disorders, Florida State University,
(850)645-6567, for answers to questions about this research or my rights. If I have questions about my rights as a parent of a subject/participant in this research, or if I feel that my child and/or I have been placed at risk, I can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850) 644-8633. Group results will be sent to me upon my request.
I have read and understand this consent form.

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REFERENCES


BIOGRAPHICAL SKETCH

Brittany Geiger is originally from Valdosta, GA. She attended Florida State University for both her undergraduate and graduate studies in Communication Science and Disorders. During her graduate program she served as a trainee on the Traineeship in Interdisciplinary Early Intervention, receiving specialized instruction and clinical experiences with young children with severe disabilities.