

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS

A MULTI-DIMENSIONAL PERSPECTIVE OF AUTISM SPECTRUM DISORDER AND
FRIENDSHIP

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Spring 2012

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Communication Sciences and Disorders
with honors in Communication Sciences and Disorders

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Abstract

The purpose of this study was to determine the experience of a child with high-functioning autism spectrum disorder during the process of initiating and maintaining friendships. Data were collected from multiple stakeholders for the current investigation including a child with autism spectrum disorder (ASD), a typically developing child and the parent of the child with ASD. Various perspectives were gathered related to the topic of interest in order to generate a complete view of this child's experiences. This study used qualitative interview methodology to understand the concept of friendship, specifically developing and maintaining friends. Several themes and sub-themes emerged from the data and are reviewed and discussed. The main themes included: (a) defining friendship; (b) initiating friendships; (c) activities and interests; (d) maintaining friendships; (e) number of friends; (f) feelings of friendship; (g) defining the perfect friend.

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Acknowledgements

I would like to thank Dr. Erinn Finke for allowing me to work with her and for providing me with great direction in the field of research. She has helped me gain a better understanding and an extremely interesting perspective on autism spectrum disorder. I give her all of my gratitude and would not have been able to complete this in the short period of time that I had without her. I would like to thank my fellow undergraduate and graduate research assistants Tia, Lauren, Kerry and Deb for putting in a great deal of effort when I needed it most. I would also like to thank my family for their support during times of great stress. I hope that this study continues forward and provides greater data and results to which we can learn more about autism spectrum disorder.

Introduction

A Multi-Dimensional Perspective of Autism Spectrum Disorder and Friendship

The proportion of children in the United States with autism spectrum disorder (ASD) is increasing at a rapid rate. According to the U.S. Centers for Disease Control and Prevention (CDC), one in 88 children are diagnosed with an autism spectrum disorder by the age of eight years old. This is a 78% increase since the CDC's first report in 2007. There have been several speculations offered for this increase including, but not limited to, the way children are identified, diagnosed and treated in their communities. Autism spectrum disorder is a group of disorders with a range of similar features, including Autistic disorder also known as "classic" autism, Asperger syndrome, Pervasive Developmental Disorder (PDD), Childhood Disintegrative Disorder (CDD) and Rett's Syndrome. The Diagnostic and Statistical Manual (DSM-IV) criteria for Autism Spectrum Disorder (ASD) are used to determine whether an individual has ASD. There are three criteria of ASD according to the DSM-IV, which are overall impairments in social interaction, impairments in communication and restricted and repetitive patterns of behavior. Impairments in social interaction can be marked by differences in non-verbal behaviors such as gestures, eye-gaze, facial expressions, failure to develop peer relationships according to appropriate developmental level, and a lack of social reciprocity. Impairments in communication are marked by a delay or lack of spoken language, inability to initiate or maintain conversation, the use of idiosyncratic language and lack of imaginary play. Restricted and repetitive behaviors are characterized by abnormal preoccupation or attachment to unusual objects, lack of flexibility to change in routine, and stereotypical motor patterns such as flapping of hands or toe walking. Children who are diagnosed with ASD do not need to show all of these signs or symptoms. Different ASD diagnoses (e.g., Autism, Asperger's syndrome, PDD-NOS, etc.) require presence of various combinations of these criteria. Further, for a diagnosis of

ASD to be made, delays in communication, social interaction and repetitive/restricted behaviors must have an onset prior to the age of three years old (American Psychiatric Association, 2000). There have been several studies that have shown that some of the symptoms and signs of ASD can be recognized in the first year of life (e.g., Dawson & Osterling, 1997; Werner et al, 2000). Specific findings have shown that 8 to 10 month olds with early onset autism spectrum disorder were much less likely to orient to their name being called than typically developing infants. Orienting to one's name involves the social, communicative and attentive domains, which are known to be impaired in children with ASD (Werner et al., 2000).

Clearly, children with ASD differ from children who are developing more typically in many ways. One of the more autism-specific differences is a significant and persisting deficit in joint attention. Initiating and responding to bids for joint attention includes the ability to direct another person's point of reference to an object or activity of interest or follow the redirection of another to something that is of interest to them. This attentional direction can be accomplished using either verbal or non-verbal behaviors. It is important to recognize this unique and substantial difference in the development of individuals with ASD as this deficit has been linked to important developmental outcomes including language acquisition, parent-child relationships and social competence (Travis, Sigman & Ruskin, 2001). The deficit in social interaction and other problem behaviors can also make it challenging for children with ASD to form lasting relationships; early on with their parents and then later with their peers. This is evident as many children with ASD have poor peer relationships and few meaningful friendships (Gurnalick et al., 2008).

Friendship can be defined as a close, emotionally intimate, and reciprocal long-term relationship between two people (Parker et al. 1995). The friendships of children with ASD are

not only quantitatively different, but are also qualitatively different from those of children who are neurotypical (Bauminger et al. 2008). Difficulties in making and maintaining friendships can be a result of limitations in joint attention, but could also be affected by a deficit in the ability to form mental representations of others, often referred to as theory of mind. Many children with ASD have deficits in the acquisition of theory of mind, which involves understanding that other people have thoughts, desires and feelings that are different from one's own (Stichter et al., 2010). A deficit in theory of mind can impact reciprocity in friendship (Bauminger & Shulman, 2003; Bauminger et al., 2008a). Further, many children with ASD may have trouble forming relationships because of their difficulties with communication. Communication is crucial to initiating social interactions with other people. The ability to initiate an interaction with another person is fundamental to meeting new people and having the opportunity to develop new friendships and other relationships (Hoppe, 2005). Finally, it has been suggested that the quality of the child's relationship with his/her parents early in life provides a template that has a direct effect on the quality of the child's close friendships with peers (Bauminger, Solomon & Rogers, 2009; Berlin and Cassidy, 1999).

Establishing quality friendships has been shown to increase positive attitudes, reduce the likelihood of bullying, reduce peer rejection, reduce feelings of loneliness as well as decrease behaviors that are commonly associated with social isolation (Parker & Asher, 1993). Making and maintaining friendships can be reliant on several factors. It has been shown that friendships tend to form around a variety of shared contexts, characteristics and activities (Schneider, Wiener, & Murphy, 1994). One key factor driving friendship formation is physical closeness (Cairns & Cairns, 1994; Hartup & Abecassis, 2002). Children are generally constrained to building friendships with peers they encounter in school, in their neighborhood, or in other

contexts where they spend significant amounts of time. Further, it has been shown that two children are more likely to become friends when they have ongoing contact with each other. Finally, in addition to physical closeness, shared characteristics and activities often drive the formation of friendships. Friends tend to be similar to one another in aggression, internalizing behaviors, academic achievement, and caring about other people (Haselager et al., 1998).

Although making friends may seem to be a natural result of human interaction, both research and professional practice suggest that young children with disabilities often experience difficulties developing peer relationships and friendships. Many young children with disabilities show uneven and insecure growth in social interactions and often fail to resolve conflicts with peers in appropriate ways (Guralnick et al., 2006). As a result, children with disabilities tend to be less accepted and often rejected by peers who perceive them as less socially competent (Geisthardt et al., 2002). The social skill deficits evident in many children with learning disabilities may lead typically achieving students to avoid forming friendships with them or exclude them in certain educational and social activities (Plata, Glasgow, & Trusty, 2005). Current literature suggests that across a given school year, students with learning disabilities do acquire friendships and that the number of friends increases over time, however, the numbers of friendships established were not equal to that of their typically developing peers (Vaughn et al., 1998). Many individuals with ASD have the desire for friends, and some may already have established friendships. However, making and maintaining friendships will most likely always be something that will take effort for children with ASD. Because children with ASD have known challenges with skills that are fundamental to establishing relationships with others (e.g., joint attention, theory of mind, communication, etc.) Families of children with ASD generally play a prominent role in assisting them in building social skills and friendships (Reichow &

Volkmar, 2010).

Children with ASD require active support from their parents and the educational system (Bauminger, Sofronoff & Slonims, 2004). Parents' beliefs about ASD appear to play a fundamental role in how other people perceive their child. Parents of children with ASD have reported feeling that their child's communication impairments inhibited everything their child tried to accomplish in every area of life. Parents also reported feeling that the inability to communicate effectively led their child to experience frustration, which, they felt, led to inappropriate or challenging behaviors. This placed an increased burden on parents to monitor their own behaviors in order to provide a positive model for their child with ASD. Further, many parents described taking whatever actions necessary to promote the happiness of their child with ASD no matter what the implications for themselves, including having a limited social life and decreased emotional wellbeing (Hoppe, 2005).

It is clear that the relationship between a parent and a child with ASD is complex. It has been reported that parents of children with ASD feel a tremendous responsibility to scaffold their children and facilitate their success academically and socially (Hoppe, 2005). This may be similar to how parents of children who are neurotypical feel, but it is hypothesized that when a child has ASD the supports that parents feel they should provide may be more numerous and may persist for longer over the course of the child's life. Further, parents may feel particular responsibility to scaffold and support their children in areas of development that are perceived to be among the most challenging for children with ASD, including making and maintaining friendships.

This study will investigate the perspectives of a child with ASD, his parent as well as a child who is neurotypical regarding their perspectives on the process of making and maintaining

friendships. It is important to understand how individuals with ASD perceive, initiate and maintain friendship in comparison to individuals that are typically developing so that better and potentially more successful interventions can be designed and implemented. It is also important to consider the perspective of the parents' of the child with ASD as they have a large impact in the life of the child and have their own thoughts and feelings about friendship. These multiple and varying perspectives will help to develop future awareness of ways to address deficits in the domain of friendship and ASD and can help to improve the overall quality of life for individuals with ASD.

Method

Design

The current study utilized qualitative interview methodology to investigate the experiences and perspectives of a child with ASD on friendship. Additional information was also gathered from the parent of the child with ASD as well as one of his typically developing peers. In a qualitative research design, data and information are gathered from interviews by asking participants questions that have been developed and formulated carefully in advance. (Creswell, 1998; Rubin and Rubin, 1995) Through the use of a qualitative interview methodology, the researcher gains an understanding of an experience through first hand accounts (Rubin and Rubin, 1995). The researcher for this investigation used a semi-structured interview process to gather data about the experience of interest, the process of making and maintaining friends. After the data were collected, research assistants transcribed the interviews in their entirety. This paper reports the findings from data generated by one child with ASD, his parent, as well as one of his typically developing peers. The first goal of this research study was to gather information to allow for an accurate description of how one individual with ASD defined friendship and conceptualized the process of making and maintaining friendships. The second goal was to gather information about the role of the parent of the child with ASD in this process, and the third was to determine how the information gathered from the child with ASD compared and contrasted with information about the same process gathered from a typically developing child of a similar age.

Participants

This paper reports the data gathered from Max*, a child with ASD, his mother Susan* and a typically developing peer Jake*. These individuals were recruited according to Institutional Review Board (IRB) approved procedures. Speech-language pathologists, ASD

specialists and special education teachers and coordinators in local school districts were contacted via e-mail. These school professionals helped the researcher identify individuals with ASD who met the criteria for the current study and were willing to volunteer to participate.

The participants were contacted using two approaches; the first approach asked speech-language pathologists and school personnel to contact the parents of a child with ASD, describe the project and then refer them to the research team for further information if they were interested in participating in the research investigation. The second approach asked speech-language pathologists and school personnel to contact the parents, provide basic details about the project and obtain permission from the parents for the school professional to provide the research team with the parent's contact information. Once in direct contact with the parent of a child with ASD, the research team supplied additional information explaining the requirements for participation in the study for both the child and parent. Typically developing peers were recruited in a similar manner, but when possible peers mentioned specifically by the child with ASD during their interview with the researcher were approached by the school professionals first. If these peers declined participation in the study other typically developing children in the same grade and of the same age as the child with ASD were recruited for participation in the investigation.

In order to participate in this study, the child with ASD as well as the typically developing peer had to be between the ages of 9 and 11 and pass a screening to ensure each child participant had the verbal, metalinguistic, and metacognitive abilities necessary to participate in the interview. All of the participants (child with ASD, parent and typically developing peer) spoke English fluently. Finally all child participants had parental consent to participate in the study and the child participants provided their verbal assent to participate.

As reported by Max's mother, Max was diagnosed with ASD. Max was 9 years old and was in third grade at the time the interview took place. Jake, the typically developing peer, was also 9 years old at the time of the interview, but was in fourth grade. Susan, Max's mother, was 60 years old at the time of the interview. See Table 1 for additional demographic information. Both Max and Jake were screened prior to the interview to confirm their verbal, language and cognition abilities.

Materials

A screening measure was designed by the research team to assess the child participants' ability to participate in an interview about an abstract concept like friendship. The interview questions asked during the interview were developed based on a review of the literature. The interviews were recorded using digital and tape recorders to allow for exact transcription further analysis. The recordings were transcribed in their entirety into a word document.

Procedures

The research team explained the purpose and procedures of the study and obtained parental informed consent and informed verbal assent from the involved child participants. It was deemed necessary to obtain informed consent from the parents and informed verbal assent from the child participants before beginning the screening since it involved an evaluation of the child's metalinguistic and metacognitive abilities. The participants were informed that the results of the screening would determine their involvement in the interview portion of the investigation. During this process the research team provided contact information to the participants in case they had future questions, comments or concerns. The children and parents were allowed to ask any questions at the time they gave their informal consent and assent.

All of the interviews were conducted at The Penn State Speech, Language and Hearing

Clinic. Parents were given the opportunity to observe their child during the interview through a two-way mirror. Before beginning the interview with the child participants, the researcher completed the screening, which involved giving the child a choice of four topics and asking him/her to answer various questions about the chosen topic. The topics the child could choose to talk about were their favorite game, movie, TV show or book (See Appendix A). Once the child passed the screening, the researcher completed the interview portion of the investigation. Both of the interviews with the child participants consisted of 12 structured questions varying from the individual's concept of what a friend is to their personal experience with having friends and the activities they engaged in with their friends (See Appendix B and Appendix C). For the interview of the parent of the child with ASD, 11 questions were asked specifically related to her views of friendship and her perception of her child's friendships (See Appendix D). Based upon the responses to each question, the researcher asked relevant follow-up questions and allowed the participant to elaborate on their viewpoints. The average length of the interviews were between 45-60 minutes, depending upon the interviewee's responses and openness to sharing their thoughts. All of the interviews were recorded on either a digital recorder or tape recorder and then completely transcribed and checked for accuracy.

Data Analysis

Before analyzing the data, the interviews were transcribed word for word into a word-processing document. The process used to analyze the data was adapted from McNaughton, Light & Groszyk's (2001) five-step process which was originally adapted from the work of Yin (1994) and Vaughn et al. (1996). In the first step of this data analysis process, the interview questions were divided and broken down into "the smallest amount of information that was informative by itself" (Vaughn et al., 1996, p. 106). These thought units consisted of a few

words or a single sentence. The second step of the data analysis process involved taking the broken down units and organizing them into common main themes, referred to as “Coding the Data”. The broad themes used in this step were developed by the research team based on the commonalities in the experiences and perspectives reported by the participants. After coding the data based on the broad themes, the data was coded more specifically into sub-themes. The third step, “Negotiating Agreement”, required the researchers review the codes (both the broad themes and the sub-themes) and meet to discuss agreements and disagreements about how these themes fit the data based on preliminary data coding. Disagreements among the members of the team were used to adjust original themes and were then incorporated new, revised themes so that all of the major ideas from the data were represented in the final coding scheme. Step four of the process mentioned as “Calculating Agreement” is discussed in further detail below in reliability. The fifth and final step of the process, “Confirming the Summary with the Participants”, requires all participants of the study to be notified of the summarized results. This portion will be conducted when the larger study is complete. The final coding themes and sub-themes can be found in Table 2.

Reliability

In order to calculate the reliability, a research assistant was provided with a coding scheme developed by the author of this paper. With the use of the coding scheme, the research assistant transcribed and coded 20% of each interview. The reliability must have been at the recommended 80% agreement (the number of agreed utterances divided by the number of agreed and disagreed utterances) (Kazdin, 2011). If the overall reliability was at less than 80%, the researchers met to review and discuss their disagreements and the author of this paper revised the coding scheme. Once a new coding scheme was created, another researcher was asked to code

20% and review the reliability with the other researchers again. The researchers and the author of this paper obtained a 90% agreement using the revised coding scheme, exceeding the suggested agreement of 80%.

Results

This section presents the results and findings as they relate to the main coding themes and sub-themes that were developed as well as specific examples discussed by the participants (see Table 2). The main themes included: (a) definition of a friend, (b) initiating friendships, (c) activities and interests, (d) maintaining friendships, (e) number of friends, (f) feelings of friendship and (g) description of the perfect friend.

Definition of a Friend. When asked, “what makes someone a friend?” both Max and Jake provided similar responses. They both reported that a friend is someone that “you play with everyday.” However, when Max continued to respond, he stated “a friend is someone that invites you to their birthday party.” Whereas when Jake continued to respond, he described several characteristics about what makes someone a friend, such as “somebody that you are nice to, get along with and interact nicely, and don’t get mad at each other a lot.” When Susan was asked her thoughts about what makes someone a friend she described “someone who stands by you and acknowledges you and will go with you and helps you out when you need help...understanding and there if you need to talk.” Unlike Max, Jake and Susan also provided qualities of someone who would not be a friend. Jake said, “I wouldn’t be friends with someone who’s mean and obnoxious to other kids or just tries to goof off.” When Susan was asked where she would draw the line between an acquaintance and a friend she responded, “I don’t like gossiping and I don’t like someone who complains a lot and only comes around when they need something.”

Initiating Friendships. Max and Jake both reported meeting most of their friends at school and in their classes. Proximity to friends also played a large role in the friendships that Max and Jake maintained. Jake mentioned, “a lot of my friends live in my neighborhood and we

always play outside.” Jake stated, “I’m always over at Marc’s house...one time me and Marc found three baby kitties in his backyard...just on Saturday we found them.” Max reported that he had recently moved to a new area and he believed that he had more friends in his old town than in his current town. He said, “I think I actually had over 15 [friends] then I moved, now I only have 8 [friends].” However, Susan stated, “[Max] has more friends now than he did back at the other school.”

Both children were also asked how they would let someone know they want to be friends. Both Max and Jake stated that they would play with the other person first before saying anything. For example, Max said “I’d usually spend some time with them before I actually ask” and Jake also said, “I don’t really ask them if you wanna be my friend very first.” Max also mentioned, however, that some children in his class hate him and often ridicule him. For example, Max stated that some of his classmates created the “Max Touch” which is similar to catching the cooties. He stated he does not think it’s mean rather “I think it’s actually a way to get a good laugh out of me.”

Activities and Interests. Max and Jake were also asked, “what would be important to you in order to decide if this person is a good person to be friends with?” Max responded, “Um, well they’re usually interested in the things I do and the things I like” and Jake similarly reported “they like the same things.” Max and Jake both reported they enjoyed participating in activities with friends ranging from talking to playing games. When Max was asked about activities he liked to engage in with friends, he said “playing on the trampoline...um...playing video games on Wii.” Jake reported that it was important for his friends to like to “play outside...usually play tag, hide ‘n seek...play sports.” Max also reported that he often asked other children if he could play tag with them. He reported that “sometimes he does [say yes] but usually he says no there’s

too many people.”

Maintaining Friendships. Max and Jake both reported having friends and named several children they considered to be their friends. When the interviewer discussed several of the friends Max named, he stated the person’s name, where he knew them from and applied a number based on a scale of 1-10 of how close a friend he considered them to be. For example, Christopher* was given a score of 10 whereas Tyler* received a score of 7. When Max was asked “what makes certain people 10’s and others 7’s, what’s the difference?” Max replied, “Um, well...I can see these two every single day, these two every other weekend, him only on school days and these two only on school days.” Jake was asked if there were individuals he considered really good friends and reported several names along with how long he had known each child. For example, Jake said, “my friends Marc*, Nick* and Jeremy*... Jeremy I’ve known since I was like four months old...Marc and Nick I’ve known for four years.”

When Susan was asked her perspective on Max’s list of friends, she felt it was an almost complete list with the addition of two names. Further she reported she had met all of the children Max mentioned. Susan said that the friends Max listed are those that she would consider “real friends” rather than acquaintances. She revealed that she felt Max did not know how to be a friend and she often had to give him tips and instructions about how to be a friend. Susan said she had to tell Max “...not everyone’s gonna like you, that’s just the way it is. There’s just a lot of different personalities out there and not all personalities are gonna get along together.” Susan mentioned that she felt her role in helping Max make friends was huge and she felt she had the obligation to explain to Max why someone may not want to be his friend. She appeared very protective over Max and stated, “I see what [bullying] does to him and that just turns me inside out when I see that...there’s no right to bullying but what can you say when your teaching him

not to do that when they're doing that to him and they get away with it." Susan described a specific instance when Max reported that he was being bullied and when she confronted the school about the incident, she reported they replied "oh well our teachers can't see everything, there's a lot of kids here." In response to this, Susan said, "I've gone to the playground and I've sat there and watched the people that are supposed to be watching the kids...they're standing there having a conversation and not even watching them." Susan went on to explain how she felt about others not taking responsibility, "I have seen so many kids' parents just completely ignore the kids. To me, every adult is responsible for a child whether it's yours or not."

Number of Friends. An important theme that arose from the interviews with both the children was the number of friends the child had. When Jake was asked how many friends he had, he reported "hmmm...no...no because I like to make new friends a lot." When Max was asked the same question, he responded, "let's see...um...that's all I can think of...6." Max was also asked whether he thought he had as many friends as other people in his class. Max responded, "No I have only 8 and some other people have like 15." The interviewer questioned, "do you wish you had 15 friends?" Max replied, "I wish the whole class would like me." Max also stated in regards to his classmates, "all I know is they hate me...I know they think I'm weird."

Susan was asked about what she would change with regard to Max's friends. She reported "I just wish he had more friends...I would change the number, maybe give him some more friends...different...more selective friends that he can interact with." She also stated "I would like him to be able to not feel that he has to act everything out and be their boss and tell them what to do...to be able to get along with them."

Feelings of Friendship. The children were asked how having friends made them feel.

Jake described “I like having friends, because I’m usually bored when nobody’s outside. I have nothing to do. I feel good...I like to play outside with them...I don’t like to be lonely without them.” Max reported that having friends made him feel good but he feels that a lot of children do not understand him. Max stated, “whatever I think, what I think is funny, they think is me being weird.” He also indicated his belief that they would never understand him, which he said made him feel sad. When Jake was asked “how would you treat someone if they were in special education?”, he indicated he would treat them “...just like any of my other friends.” Jake also said that if the person in special education had trouble following the rules it would not bother him because “I know he can’t do that and it’s not because he’s a bad kid.”

Susan reported feeling it is important to teach Max, as well as the other students, about his diagnosis of ASD. She stated that she believed the other students would have a better understanding of Max, and why he did some of the things he did, if they were made aware of his diagnosis. Susan also indicated that she would like Max to learn “more people skills like how to communicate with other kids...and understanding more about the process, I think he needs to understand how other people feel because a lot of it is self-centered.”

Description of the Perfect Friend. When asked to describe a perfect friend, Max and Jake had very different viewpoints. Max stated that his idea of a perfect friend was “umm...rich...have a lot of things...lots and lots of toys but not snooty about it.” Jake’s idea of a perfect friend was someone that was “always nice to you and never mean...always agrees, isn’t rude, gets along with you and cooperates.”

Discussion

Based on the experiences reported by Max, the child with ASD, Jake, the typically developing child, and Susan, Max's mother, there were several themes and sub-themes pertaining to friendship that were similar and many that were different. Similarities were seen in defining a friend, activities and interests, and initiating friendships. Differences were noted in these participants' responses to (a) describing a friend, (b) discussing maintaining friendships, (c) talking about the number of friends each had, (d) describing their feelings about friendship and (e) stating the definition of the "perfect" friend.

When defining what made someone a friend, both Max and Jake described a friend as someone you play with every day. However, when Jake continued his response, he described several characteristics and qualities of a person, whereas Max did not. Susan also described the characteristics and qualities that she found important when she described what made someone a friend. Max described friendship in an action-oriented manner and did not connect any emotional descriptors to his definition unlike the descriptions offered by Jake and Susan.

With regard to initiating and maintaining friendships, Max and Jake had similar responses. They both stated they would play with an unfamiliar peer prior to asking him/her to be a friend. However, Max revealed that some children in his class disliked him and ridiculed him. Max told the interviewer that he generally attempted to laugh off the ridicule of his classmates; potentially as a method of self-preservation. It is also possible that Max's laughing response was an attempt to fit in with his classmates and join in the activity in the only way possible. No matter the motivation for this response, this treatment by his classmates impacted the way Max viewed the number of friends he had at the time of participation. During the interview he informed the interviewer he felt he had more friends at his old school than at his

new school. This sentiment was not confirmed by Max's mother, Susan, who reported during her interview that she felt Max had more friends in his new school. Max and Jake were both able to compile a detailed list of individuals they considered to be their good friends. Susan confirmed Max's list but further revealed she felt Max did not know how to be a friend. She continued this thought by stating she felt he must be prompted to use friend-like responses and that Max still had a lot to learn about how to be a friend. This trouble with acting like a friend may result from Max's difficulty with understanding or detecting friendship-initiating signals from typically developing peers. Friendships among typically developing children are characterized by willingness to share and cooperate as well as the exchange of mutual positive affect, generally in the form of smiling and laughing (Newcomb & Bagswell, 1995). It has been found that children with ASD have difficulty engaging in this positive exchange of emotion, which affects their ability to make friends (Stichter et al., 2010). Typically developing children also engage in more conversation with people they consider friends than those they do not (Newcomb & Bagwell, 1995). This aspect of friendship may be fundamentally affected by the characteristics of an ASD diagnosis in that language difficulties are a central characteristic of this disorder. Overall difficulties in the domains of emotion and language found in children with ASD may be central to the difficulty children with ASD have with initiating and maintaining friendships (Daniel & Billingsley, 2010).

When Jake and Max were asked how having friends made them feel, both children indicated that having friends made them feel good. That was the extent of the similarities in their responses, however. Jake explained that he liked having friends because he did not like to be lonely or bored. Max disclosed that he felt that a lot of children did not understand him, which in turn made him feel sad. Susan reported she felt it was important to teach Max, as well as his

classmates, about the diagnosis of ASD. She stated she believed the other students would have had a better understanding of Max, and why he did some of the things he did, if they were made aware of how his diagnosis affected his behavior. Max appeared to have the desire and motivation for friendship, however, there seemed to be a disconnection between his desire and his ability to follow through on this desire.

Though Max never mentioned it, it was clear that Susan played a vital role in the initiation and maintenance of his friendships. This level of support is typical in the early stages of typical development. Young children depend on their family to provide support. Family is responsible for meeting a young child's basic needs such as safety, nutrition and health as well as helping the child to develop the coping skills necessary to regulate emotional behaviors. The family also supports the development of social and communication skills that aid the child in understanding age appropriate conventions for social interaction (Prizant & Meyer, 1993). As children get older and enter middle childhood, the role of the family as the primary support system for scaffolding social relationships tends to fade. However, this was not the experience reported by Susan, who explained feeling an obligation to explain to Max why someone did not want to be his friend. Susan expressed feeling extremely overprotective over Max because of the number of times she has witnessed the repercussions of the bullying Max has been subjected to by his peers at school. This is not a rare occurrence as it has been suggested that parents of children with developmental delays and disorders experience extreme stress and become overprotective (Prizant & Meyer, 1993). Further, since children with ASD are more likely to experience unsuccessful social interactions, parents of these children experience negative emotions as a result of seeing their child fail in these attempts (Prizant & Meyer, 1993). The obstacles children with ASD face with regard to initiating and maintaining friendships, as well as

parents' desire to prevent failure, results in parents remaining highly involved compared to what might be expected for typically developing children (Prizant & Meyer, 1993).

When Max and Jake were asked to describe a perfect friend they had very different viewpoints. Max described a perfect friend using action-oriented verbs and adjectives while Jake referred to specific qualities and characteristics for his friends. These differences could be attributed to the fact that many children with ASD have limited experience with friendship. Lack of experience with friendship would affect a child's ability to determine the qualities they desire in the perfect friend. In addition, children with ASD have trouble generalizing specific events to other situations or contexts (American Autism Society, 2011). This deficit in generalization may have impacted Max's ability to translate the characteristics or qualities he admired in his current friends into a description of the ideal friend. The inconsistencies between Max and Jake could also be attributed to the fact that children with ASD tend to rely heavily on rules and routine. Children with ASD rely on structure to reduce feelings of uncertainty and fear (American Autism Society, 2011). Therefore, when describing a perfect friend, Max may have simply repeated his description of a friend, which was also limited to action-oriented verbs and adjectives. This could be related to the underlying deficit children with ASD have with executive functioning. Difficulty with executive functioning could have hindered Max's ability to meet the cognitive and linguistic demands associated with the abstract nature of the question (Cotugno, 2009; Stichter et al., 2010).

Clinical Implications

The findings from this study provide direct implications for speech-language pathologists, as well as children with ASD, their families, their typically developing peers, and other professionals who work with children with ASD. Most importantly, this study suggests

that children with ASD conceptualize the process of making and maintaining friendship differently from their typically developing peers. This has implications for intervention planning as it implies that simply teaching children with ASD to do what typically developing children do when they make new friends may be inadequate for the child with ASD to be able to overcome the deficits they have related to this area of social functioning. Children with ASD have a fundamentally different process of initiating and maintaining friendships - they are not delayed. Interventions and therapy techniques that use routine and repetitive practice of target skills with the intention that a child with ASD will generalize, will most likely be unsuccessful, as social situations are never identical. Therefore, teaching children with ASD routines or scripts for how to engage in social situations will often set them up for continued unnatural and unusual interactions. Speech-language pathologists need to focus on interventions that develop social competence. Social competence includes the social, emotional, cognitive and behavioral domains (Newcomb & Bagwell, 1995). Skills that should be worked on include, but are not limited to, sharing and directing attention, understanding empathy as well as other emotions, conflict resolution as well as adaptability. Learning these skills will allow the child with ASD to gain foundational knowledge so that he or she can problem solve for themselves in variety of situations and contexts. Speech-language pathologists need to take into consideration the areas of deficit for children with ASD, such as cognition or language, when planning and explaining concepts (Stichter et al., 2010). Targeting skills that can transcend multiple types of social interactions, such as the ability to initiate, conclude and maintain topics of conversation and taking turns in conversations are imperative to making and maintaining friendships (Gallagher, 1993).

Speech-language pathologists should also take into consideration that each child with

ASD is different and has individual characteristics, preferences and abilities when planning an intervention. It is evident that children with ASD are at risk for having difficulty with initiating and maintaining friendships, but this does not mean that all children with ASD will experience obstacles associated with friendship. Speech-language pathologists should also keep in mind that children with ASD may be dependent on adult support longer than typically developing children. This may mean that the SLP will need to educate the child's parents about the differences in how children with ASD define friendship compared to children who are typically developing. Parents will need to understand how these differences and inconsistencies between definitions of friendship may impact how the child with ASD views successes and failures in their friendships. It is also important to educate parents about their role so they can provide appropriate support to their child.

In addition to educating parents about their role in the development of friendships with their child, speech-language pathologists should educate teachers on the differences between children with ASD and children who are typically developing. This will allow them to provide appropriate support as well. Education and awareness about ASD and how children with ASD approach friendship could also be taught to typically developing peers so they recognize and understand that there are differences in how children with ASD think and what they may expect from children with ASD.

Limitations

The current study has several recognized limitations. This study only analyzed the interviews of one child with ASD, one typically developing peer who was similar in age, and one parent of the child with ASD. This study also only recruited participants from one geographic area of Pennsylvania. This small sample size with very similar demographic profiles may limit

the ability for generalization across greater populations. Also, the child with ASD was considered “high-functioning” which limits the ability to generalize to other severity levels of ASD. For this specific study, it was necessary for the children to be “high-functioning” since they needed to possess the metacognitive and metalinguistic abilities to participate in an interview about an abstract topic. Children considered “low-functioning” are more severely cognitively and communicatively impaired and most likely would not have been able to pass the screening necessary to participate in the interview. In addition to more severe cognitive and communicative impairments, children with “low-functioning” ASD may have very different social relationships than those with “high-functioning” ASD and may not be aware of these differences. Overall, these factors limit the ability to generalize and apply these findings to other individuals with ASD.

Directions for Future Research

This study is part of a larger study that includes a larger sample size and participants with varying demographic profiles. The larger study will include children who range in age from 9-17. Similar to this study, interviews will be conducted with a parent of each child with ASD as well as typically developing peers for comparison.

Future research beyond this paper and the larger study should focus on children who are not considered “high-functioning”. This will present challenges due to the deficits and the effect of ASD on metacognitive and metalinguistic abilities. Since ASD is a spectrum disorder, it can be assumed that the concept of friendship and its effect on making and maintaining friendships will vary across the spectrum. Future research should also address individuals that are non-verbal and those that are not included in mainstream classrooms. Research designs should include structured parent interviews and informal observations in various social environments.

Poor peer relationships or lack of friendships have been found to predict serious difficulties later in life making it crucial that researchers continue to study the friendships of children with ASD. Increasing the awareness and knowledge about this topic will contribute to the ability to intervene more effectively and improve the quality of life of children with ASD.

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Table 1
Demographic Information

	P-004 Mother of Max*	C-ASD-004 Child w/ ASD	TD-001 Typically Developing Peer
	Susan*	Max*	Jake*
Age	60	9	9
Gender	Female	Male	Male
Ethnicity	Nonhispanic	Nonhispanic	Nonhispanic
Racial Background	White	White	White
Grade Level/Level of Education	Associate's Degree	Grade 3	Grade 4
Percent of day in regular education classroom	N/A	100%	100%

*All names were changed to protect confidentiality

Table 2*Summary of Coding of Themes and Sub-Themes*

<u>Numerical Code</u>	<u>Theme</u>	<u>Sub-Themes</u>
1	Definition of a Friend	Qualities of a friend/similar to self-nice, get along well, well-behaved, stand by you, someone who listens Qualities of someone that is not a friend – obnoxious, gets mad, mean name calling, bothersome Interactions – everyday, sometimes, rarely Proximity to friends
2	Initiating Friendships	Places to meet friends – park, school, neighborhood Letting someone know you are friends/want to be friends – play, talk Others judgment/Perspectives of child – hate, laughing at child
3	Activities and Interests	Engage in activities that friends like – play, talk, sports, video games Exclusion from activities
4	Maintaining Friendships	Names of friends Length of friendships Role of parents/Parent involvement – bullying, control Role of school
5	Number of Friends	How many friends? Emotions associated with number of friends
6	Feelings of Friendship	Having friends – feel good/happy Without friends – bored, lonely Knowledge of ASD
7	Description of the Perfect Friend	Characteristics – nice, cooperative, rich, shares toys
8	Unrelated Comment	

Appendix A

Screening Questions

During the screening, the child chose one of the following four topics to talk about:

- 1) Favorite movie
- 2) Favorite TV show
- 3) Favorite book
- 4) Favorite game

Once the child picked the topic of their choice the following questions were asked pertaining to the chosen topic:

1. Describe this [chosen topic] briefly.
2. Explain to me why you like [chosen topic].
3. What would you tell someone who hasn't seen/played/read this [chosen activity] to convince him or her that they should?
4. Would this [chosen activity] be something that you would recommend to a friend?
Explain to me why or why not.

Appendix B

Child with ASD Interview Questions

1. What is a friend?
2. How do you know when someone is your friend?
3. How many friends do you have?
4. What do you do to let someone know you are interested in their becoming your friend?
5. How do you know when someone is interested in your becoming your friend?
6. What kinds of activities do friends do together?
 - a. Which of these do you do with your friends?
 - b. Which of these do you wish you would or could do?
7. How do people meet friends?
8. What does someone need to be able to do to talk to a new person or make a new friend?
9. Where do you meet/make your friends?
10. How does having a friend (or friends) make you feel?
11. What do you do to keep your friends, keep a friendship going?
12. Describe the “perfect” friend for you.

Appendix C

Typically Developing Child Interview Questions

1. What is a friend?
2. How do you know when someone is your friend?
3. How many friends do you have?
4. What do you do to let someone know you are interested in their becoming your friend?
5. How do you know when someone is interested in your becoming your friend?
6. What kinds of activities do friends do together?
 - a. Which of these do you do with your friends?
 - b. Which of these do you wish you would or could do?
7. How do people meet friends?
8. What does someone need to be able to do to talk to a new person or make a new friend?
9. Where do you meet/make your friends?
10. How does having a friend (or friends) make you feel?
11. What do you do to keep your friends, keep a friendship going?
12. Describe what you think it might be like to be friends with a person with a disability/person with ASD.

Appendix D

Parent Interview Questions

1. Does your child with ASD have friends?
2. Who are their friends?
3. How do you define “friendship”? How do you draw the line between an acquaintance and a friend?
4. Are you satisfied with the number and quality of your child’s friendships?
5. If you could change something about the number or type of friendships your child has, what would it be?
6. What makes you feel the most satisfied about your child’s friendships?
7. What level of control do you feel over who your child is friends with?
 - a. How do you feel about this level of control?
8. What do you feel is your role in helping your child make and maintain friends?
9. What do you feel is your child’s role in helping make and maintain friends?
10. What do you feel is the role of the school and the school team in helping your child make and maintain friends?

What are the skills you think your child with ASD has/needs to make and/or maintain friendships?

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JILLIAN FRIEDMAN

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EDUCATION

Pennsylvania State University, University Park, PA

Expected: May 2012

Schreyer Honors College

Bachelor of Sciences

Major: Communication Sciences and Disorders

EXPERIENCE

Town of Oyster Bay Summer Recreation, Syosset, NY

Summer 2007-2011

Recreation Supervisor

- Oversaw the well-being, safety and interaction of 80 campers and their counselors
- Coordinated and planned curriculum including: excursions, performance art shows, athletic tournaments and clinics
- Communicated with parents on daily basis to provide new and updated information for upcoming weeks
- Certified in CPR /First Aid, trained to respond to emergency situations

Recreation Counselor

- Instructed and planned age appropriate activities for 30 six-year old boys and girls
- Resolved conflict and enforced effective communication strategies for children to understand
- Collaborated schedule with co-counselors and consulted supervisor when necessary

Syosset High School, Syosset, NY

Fall 2007-Spring 2008

Private Tutor

- Worked one-on-one with sixth and seventh grade students to help understand math, science, social studies, English and Spanish
- Improved knowledge and skills in areas where students had difficulty through study and practice
- Designed and implemented a schedule for students to follow for each school week

ACTIVITIES

Mane Events

August 2011-Present

Co-founder & Secretary

- Helped create an event planning organization that brings entertainment acts to Penn State students for free
- Compile and organize minutes and meetings agenda, utilizing skills in Microsoft Word and Microsoft PowerPoint

Sigma Delta Tau

Fall 2008-Present

Cure Autism Now Sponsorship Chair

- Coordinated, collected and budgeted charitable donations from friends, family and local businesses
- Motivated and encouraged my peers to participate in a variety of philanthropic events

Panhellenic Representative

- Gathered with 19 other sorority chapter representatives to discuss and vote on subject matters regarding budget, recruitment and philanthropy
- Served as a liaison between the sorority and the community by acting as the voice, making wise decisions for the benefit of each individual sorority member

National Student Speech Language Hearing Association

Spring 2010-Present

- Gain a fuller appreciation and awareness of issues in the profession of speech-language pathology and audiology
- Attend monthly meetings to learn more about the field through speakers, faculty, students and involvement in charity events such as food events and trips to nursing homes.

AWARDS & HONORS

Dean's List (2008, 2009, 2010, 2011)

Health and Human Development Honor Society (2009-Present)

Phi Eta Sigma National Honor Society (2008-2009)