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**The influence of stuttering awareness on the child who stutters'
friendship preference**

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friendship preference**

by

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Report

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Dedication

This report is dedicated to the people in my life who have supported me throughout the most challenging experience I have faced. My friends and family have encouraged me to persevere when it seemed too difficult and understood when I was not able to give them the attention that they deserved. Specifically, I dedicate this work to my grandmother Tommy Bosler and cousin Robert Pape, who believe in the importance of higher education and wanted to see that I achieve such a goal. I also want to dedicate this piece to my parents and sister. They listened to my worries and fears and told me they were unfounded and to my passions and excitements and reminded me that I was doing the right thing with my life.

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Abstract

The influence of stuttering awareness on the child who stutters' friendship preference

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Stuttering has been defined as an atypical disruption in the forward flow of speech (Conture, 2001). The onset of stuttering is reported to be 2 to 3 years of age; the age at which the child is first learning to communicate more frequently with words rather than nonverbal behaviors. Interestingly, this is also the time at which children seek interactions with others rather than the former tendency to play independently. Because of the overt nature of this disorder, the timing of the onset and its co-occurrence with significant social developmental shifts, stuttering has the potential to impact the child's ability to make and maintain friendships. The purpose of this report is to investigate the impact of stuttering awareness on the friendship preferences of preschool children who stutter.

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INTRODUCTION

Existing research has revealed that some typically developing children are aware of stuttering in the speech of others as early as age three (Ambrose & Yairi, 1994; Ezrati-Vinacour, Platzky, & Yairi, 2001). This is also the age at which the onset of stuttering occurs in the majority of individuals who stutter. Thus, it is likely that as soon as a child begins to stutter, a number of his peers will notice it and may view him as being different. The impact that this perception of being different has on the child who stutters's ability to make friends is not clear. To date, research related to social preferences for fluent speakers has largely been limited to adolescents and adults.

In addition, Craig, Blumgart, and Tran (2009) reported that adults who stutter had significantly lower scores in the area of social functioning than adults who do not stutter. This indicates that stuttering can have a negative impact on the social interactions of individuals who stutter. It seems reasonable to assume that these social differences would begin during early childhood when the preschooler who stutters and his peers realize that he speaks differently. Perhaps, the child's own awareness of his speech difference and the lack of social acceptance may result in the development a negative communication attitude; a view of self that would undoubtedly impact social interactions.

Negative attitudes about stuttering have in fact been documented near onset of stuttering as demonstrated by a comparison of the speech attitudes of preschool and kindergarten children who do and do not stutter (Vanryckeghem, Brutton, & Hernandez, 2005). Children who stutter (CWS) as young as three or four years old exhibited significantly more negative attitudes about their speech than children who do not stutter. For example, the CWS were more likely to note that they did not talk right. Addressing

these negative feelings toward their speech at a young age may help to reduce the chance that they will grow to be adults who have negative feelings about their social functioning.

In addition to the young stuttering child's negative feelings about his/her own speech, by age 4, typically developing children appear to begin to identify stuttering as a type of speech that is "not good," with 68% of these children reporting that they would rather play with fluent than a disfluent puppet (Ezrati-Vinacour, Platzky, & Yairi, 2001). If a CWS is not seen as a preferred friend, s/he may experience fewer positive social interactions with peers, which could negatively impact his social competence and further contribute to the development and persistence of a negative communication attitude.

To understand the full impact of stuttering on the social functioning of children who stutter, the author will begin the following literature review by considering past research in the area of psychology regarding the development of friend preferences for both typically developing children and children who present with characteristics that are considered to be atypical in nature. Following this review, speech and language research studies investigating the development of negative perceptions and communicative attitudes in people who stutter will be discussed.

The second part of this paper will describe the data gathered from a child who stutters. As in the article by Ezrati-Vinacour, Platzky, and Yairi (2001), the participant will watch a video of two puppets- one with fluent speech and the other with stuttering-like disfluent speech. The child's awareness of stuttering will be measured by her ability to discriminate between the fluent and disfluent puppet and to self-identify, by choosing the puppet that speaks like she does. Finally, to investigate playmate preferences, she will be instructed to select the puppet with whom she would like to be friends.

Information from both the literature review and the participant will be evaluated to discover if the awareness of stuttering impacts the preference of a fluent friend over a disfluent friend. The author suspects that if the participant demonstrates awareness of stuttering by discriminating and/or self-identifying with the disfluent puppet, then she will choose the fluent puppet as a friend. If this hypothesis is confirmed, these results will lend support to the notion that stuttering is a trait that may hinder the social development of children.

BACKGROUND

Description of Stuttering

Stuttering is a speech disorder characterized by both primary and secondary characteristics. The overt disfluencies observed in the speech of individuals who stutter are those behaviors classified as primary characteristics. Although speech disfluencies can be found in the speech of both people who stutter (PWS) and those who do not (PWNS), it is the type and frequency of these disfluencies that characterize an individual as a person who stutters. Typical speech disfluencies consist of phrase repetitions, interjections, and revisions. The types of disfluencies that are considered stuttering-like in nature are sound and syllable repetitions, whole word repetitions, and audible and inaudible sound prolongations.

Some people who stutter also exhibit the secondary characteristics of this disorder. These are the physical behaviors that accompany moments of disfluency and can involve movement of the head, face, or extremities. Common examples include closing the eyes, jerking the head, and tapping the fingers. Originally, these behaviors may have been used successfully by the PWS to either consciously or subconsciously facilitate fluency, but the novelty effect inevitably extinguishes over time.

Approximately 3 million children in the United States stutter. It is also estimated that five percent of individuals stuttered at one period in their lives (Conture, 2001; Bloodstein & Bernstein-Ratner, 2008). At a ratio of 3:1, there are more males than females who stutter. Females tend to spontaneously recover from stuttering more quickly and commonly than males do. Thus, the gender gap increases with age. In addition to being female, the following factors are considered to be positive prognostic indicators: 1) onset occurred before age three, 2) no family history of stuttering, 3) family history of

recovery, 4) no concomitant phonological problems, and 5) a measureable decrease in the stuttering-like disfluencies immediately post onset (Yairi, Ambrose, Paden & Throneburg, 1996).

Development of Social Interaction

The developmental changes in social behaviors before and during the preschool years of a child's life will lead to increasingly complex interactions that will begin to lay the foundation for a child's social competence. Initiating in social exchanges with other children will help the child learn specific social skills that will in turn impact his establishment of friendships in the future (Dunn, Cutting, & Fisher, 2002). Ladd (1990, 1999) and Ladd and Kochenderfer (1996) both reported that a child's friendships during his or her first year of school can predict later satisfaction in and adjustment to school. Because social interactions in preschool can impact the development of friendships and can also impact the child's feelings about and performance in school, it is critical for a child to have positive social experiences in preschool.

To investigate the change of social patterns in young children, Holmberg (1980) observed the social interactions with adults and peers in a group of children between the ages of 12 and 42 months across several day-care centers in a cross-sectional study. The author observed the initiations and subsequent responses of the target children, their teachers, and their classmates to gather information about young children's early social development with adults and peers. Results indicated that there was no significant increase in complex interactions between the participants and their teachers throughout the age range observed. Complex interactions, called "elaborated interchanges" by the author, were defined as those that consisted of at least two turns by each communication partner (p. 450). However, these complex interactions with peers increased significantly

at 30 months and continued to do so until 42 months. It was at this oldest age that the interchanges between children and their peers began to reflect the complexity seen in the child-adult interactions. It is likely that complex interactions with adults did not increase over time because the teachers were responsible for maintaining these interactions when the children were too young to do so. This suggests that although children may begin to exhibit immature socializations as toddlers, they are able to maintain longer, more complex interactions with their peers in the preschool (3-5) years.

This increase in complexity is also observed during the preschool years in children's play skills. This would be expected because most of the social interactions of preschool children and their peers primarily occur during play. Howes, Unger, and Seider (1989) observed pairs of children from the toddler to early preschool ages (14-38 months) to gather information about the emergence of social play, solitary pretend play, and social pretend play. Twenty-seven of the forty-two participants demonstrated behaviors consistent with the first level of social play between 14 and 16 months. This type of play consisted of parallel play with some form of acknowledgement (e.g., eye contact or a smile) between the members of a dyad. The social play of most of the child pairs became more directly interactive between the ages of 20 and 22 months. At this point, children were observed to participate in interactions where children took turns reciprocating behaviors, such as throwing a ball back and forth. Thus, by the age of two years old, children may be expected to begin seeking a peer partner in simple reciprocal play.

The most complex levels of social play and social pretend play were observed to emerge in the majority of participants between 29 and 38 months (Howes, Unger, & Seider, 1989). In these advanced levels of play, the children took on complimentary roles, and the play was successful due to the mutual acceptance of these roles. For

example, a pair may have pretended that one child was the doctor and the other was the patient. Like the complex interactions observed by Holmberg (1980) that were previously discussed, the most complex play skills were not significantly demonstrated by the children until they reached at least 29 months of age. Thus, it is likely that the interactions that begin to occur at this age are those that lead to helping the child make and maintain friendships.

Howes (1983) observed the social interactions of groups of infants (5 to 14 months initially), toddlers (16 to 23 months initially), and preschoolers (35 to 49 months initially) over the period of a year to study the patterns of friendships across these ages. Information gathered from her observations revealed that infants interacted with a limited number of peers, but that these relationships appeared to be constant over time. The interactions of infants mainly consisted of the trading of toys instead of verbal exchanges. At the beginning of the year, toddlers' relationships were also almost entirely restricted to consistent peers, but later they developed a number of short-term friendships. The interactions of the toddlers were less frequently based on item exchange than were the infants' but were also less verbal than the interactions of the preschool students. Lastly, the preschool children demonstrated two different styles of friendship. Throughout the year, most of the preschoolers engaged in multiple short-lived friendships. However, there were a smaller number of preschoolers who were able to maintain more fixed relationships with peers. Both patterns of preschool friendships were characterized by verbal interactions.

It was also noted by the author that the greatest advances in the complexity of social interactions were made by those friendship pairs that demonstrated stable, long-term relationships, regardless of what age they were (Howes, 1983). This implies that stable relationships are conducive to complex social interactions. These findings

emphasize the need for peer acceptance and friendships during the preschool years. Thus, it may be implied that individuals without stable friendships at this age would lack some social skills and that their social competence would, in turn, suffer.

Development of Social Preferences

Most experts agree that children begin to show social preferences for others during their preschool years. It has been found that children as young as three can discriminate between “normal” and “nonnormal” physical characteristics (Sigelman, Miller, & Whitworth, 1986). At this age, children begin to show preferences for those who fit into their schema of what they consider to be “normal.” The following sections examine the impact that several overt, unique characteristics have on the social preferences of preschool children.

IMPACT OF GENDER

A preference for same-sex friends is seen in children as young as three (Maccoby, 1998; Powlishta, Sen, Serbin, Poulin-Dubois, & Eichstedt, 2001). Hoffman and Powlishta (2001) considered the notion that play behavior is presumed to be reflective of gender and predicted that preschool children will likely be drawn to same sex peers as theoretically they should be more likely to exhibit similar play and interaction styles. As expected, the authors observed the participants interacted significantly more frequently with peers of the same sex than with those of the opposite sex whenever they had “free play” time. However, there were no observed play style differences in relation to sex, and children did not tend to select playmates who displayed markedly comparable play styles. Because children were observed playing with same-sex peers regardless of differences in play styles, it is possible that children at this age begin to select friends

who are simply physically like themselves in some observable way(s); in this case, gender.

Although these preferences for same-sex friends are reported by many to emerge in preschool aged children, Damon (1977) and Gottman and Parkhurst (1980) reported that preschool children made many cross-sex friend selections. However, once children reach elementary school, they appear to select same-sex friends almost exclusively (Eder & Hallinan, 1978). This supports the idea that children at younger ages may not choose friends based on gender alone, but that as they get older, they become more likely to choose friends with whom they share select physical characteristics, such as sex.

IMPACT OF RACE

Because gender has been shown to be such an influential factor in playmate preferences, and possibly the most pronounced, Fishbein and Imai (1993) felt that it was important to also consider the impact of sex in their investigation of race as a factor for friend selection. During free-play sessions at a university-based preschool, 90 children were observed for playmate choice for a total of 1,200 observations. Approximately 50% of the children were white, 33% were black and the rest were foreign-born, mostly from Asia. All of the groups of children, separated on the basis of race and gender, demonstrated both a preference for same-sex peers and an avoidance for opposite-sex peers. However, boys and girls differed in how race impacted their choice for playmates. Boys from all three racial groups relatively preferred to play with white boys while least relatively avoiding to play with same-race girls. Interestingly, the girls from all three racial groups preferred girls of the same race while also comparatively avoiding white boys the most. The finding that boys of all races prefer to play with white boys supports previous evidence demonstrating a positive-white racial bias in preschool children

(Aboud, 1988; Fishbein, 1992). The current authors suggested that this bias may be seen in the boys because they are more concerned with status in the classroom when selecting friends. That is, they may hope to gain higher status by associating with what is considered the cultural majority. Another possibility may be that the boys chose friends either more randomly or less based on physical similarities than the girls, and the higher percentage of white peers lead to an increased probability that a friend would be white.

Although the trend to select same-race friends has been observed in preschool-aged children by many professionals, race seems to impact choice of friends less in preschool children than in older children (Carter, Detine-Carter, & Benson, 1980). Similar to information regarding the influence of gender on friend choice, it appears that as children grow older they make fewer cross-race friendships.

Leman and Lam (2008) explored the effects that race has on conversations between children as they selected a playmate and found that children around the age of seven years were more likely to select a friend from his or her own racial group. In this study, pairs of students were asked to select one photograph from a group of eight of a child with whom they would like to play. For all three racial groups (i.e., European, African Caribbean, and South Asian) included in the study, same-race pairs more frequently selected a child of their own race. However, the same-race minority pairs chose the photo of a playmate from their own race less frequently than the majority pairs did. Also, when the pairs were made up of children from two different racial groups who did agree on one friend choice, they most frequently selected a playmate from the majority group. This finding lends support to the notion that children may have a tendency to select friends who are viewed as part of the majority.

IMPACT OF BODY SIZE

Sigelman et al. (1986) studied the presence of stigmatization for six physical differences (i.e., different race, different gender, facial scar, leg brace, wheelchair, and obese) in preschool through third grade children. Seven drawings of children were examined by the participants. One depicted a “normal” child and the other six drawings were of a child who displayed one of six physical differences. When participants were asked to choose which drawing of a child they liked best, the obese child almost always received the lowest scores. Results also indicated that these negative attitudes toward obesity increased with age.

Body size stigmatization and how it may relate to friend selection has been studied by a number of professionals. Musher-Eizenman, Holub, Barnhart Miller, Goldstein, and Edwards-Leeper (2004) had preschool children rate thin, average, and chubby figures by placing them on a scale between two opposite adjectives. One of the adjectives was positive and the other was negative. Following this task, the participants were asked to select three pictures of figures with whom they would prefer to play. They were also asked to select which figure they would like as a best friend. The authors of this study found that the chubby figures were rated more negatively than the thin or average figures. In addition, children chose the chubby figures as preferred playmates less frequently than the thin or average figures and rarely selected a chubby figure as a best friend.

Utilizing methods similar to the ones described by Musher-Eizenman et al. (2004), Margulies, Floyd, and Hojnoski (2008) investigated body size attitudes and friend choices of African American preschoolers. The overweight figures again received the most negative ratings when compared to average-sized and thin figures. Unlike the study above, however, there were no significant differences between the average and

overweight figures. However, when friend selections were made for a number of contexts, the average-sized figure was selected significantly more frequently as the most desired playmate. Consistent with other investigations on this topic, the current findings support the hypothesis that African American preschoolers have negative attitudes toward overweight individuals and that these attitudes influence their friend selections.

Cramer and Steinwert (1998) were the first to study, in depth, the presence of body size stigmatization and its role in friend selection in preschool-aged children. For the first part of their study, they had a group of preschool children (N = 30) listen to four stories in which one character was “mean” and the other one was “nice.” Following each story, the child was presented with a drawing of both a chubby and a thin child and was asked to select which of the two figures in the drawing was the “nice” character and which was the “mean” character. Results revealed that across all the stories, the children selected the chubby figure as “mean” significantly more often than the thin figure.

In the second part of the study, a larger group of preschool children (N = 83) was separated into three age groups: 3-year-olds, 4-year-olds, and 5-year-olds. The participants looked at drawings of a thin figure, an average-sized figure, and a chubby figure and were asked to select one of them in a number of tasks. Consistent with the participants in the first part of the study, the children in all three age groups significantly chose the chubby figure as the “mean” character in the story task. When asked why they had made this choice, the children in the older two groups mainly provided body size and appearance reasons, whereas the 3-year-olds provided reasons that referenced the activity in the story or were not able to explain their choices. Next, the examiner asked each child to select the figure that most resembled each of 24 adjectives (12 negative and 12 positive). In all age groups, the chubby figure received more negative adjectives and fewer positive adjectives, but this trend significantly increased with age. This finding

supports the idea that young children's negative attitudes for overweight individuals are reinforced and continue to increase as they grow older.

To gather additional information about the children's awareness and perceptions of body sizes, three questions were asked while the child was looking at the drawing of all three figures: 1) Which figure looks most like you? 2) Which figure do you want to look like the most? and 3) Which figure do you want to look like the least? The 3-year-olds more frequently stated that they looked most like the thin figure, while the 5-year-olds most frequently identified with the average figure. The majority of the children across the age groups responded that they would most like to look like the thin and average figures. By comparison, all of the 5-year-olds and most of the 3- and 4-year-olds selected the chubby figure as the one they would least want to look like. Interestingly, differences in perceptions were apparent when related to the children's actual body sizes (Cramer & Steinwert, 1998). The thin children identified themselves equally as thin, average, and chubby, whereas the average children were more accurate and, thus, the majority stated that the average figure looked most like their own figure. The overweight children demonstrated the largest amount of inaccuracy as they more frequently identified with the thin figure. In addition, while both thin and average participants selected the thin and average figures as the preferred figure size at comparable rates, the overweight children selected the thin figure at a much higher rate. Finally, most children, regardless of actual body size, selected the chubby figure as the least preferred.

In the final task, the three figures were grouped into the three possible pair combinations (i.e., chubby and thin, chubby and average, thin and average), and the children were asked to identify with whom they wanted to play within that pair. Both the thin and average figures were preferred when they were paired with the chubby figure. Furthermore, the thin and average-sized children preferred the average to the thin figure,

while the overweight children preferred the thin figure. It is interesting that the overweight children inaccurately identified with and demonstrated stronger preferences for the thin figure. This may likely be due to the overweight children wanting to identify and associate with what they feel is normal, reflecting a stronger negative perception of individuals who are overweight.

IMPACT OF DISABILITIES

A number of investigators have examined the friendship preferences of typically developing children for same-aged peers with disabilities. Nabors and Larson (2002) asked a group of children between the ages of 3;5 and 9;4 a series of questions about line drawings of a physically normal child or a child in a wheelchair. The authors found that, overall, the children in this study were not expressing playmate preferences based on whether or not the child was in a wheelchair. However, the older children (those between 6.5 and 8 years) provided more positive ratings of the children in question, regardless of their disability status. This is a positive finding, suggesting that attempts to portray children in wheelchairs in a more positive light, as well as the inclusion of children with disabilities in mainstream classrooms, may have resulted in typically developing children, especially as they get older, having decreased negative perceptions towards children in wheelchairs.

Other studies found conflicting evidence when exploring whether or not children exhibit a social preference for typically developing peers over those with disabilities. In a study by Nabors and Keyes (1995), preschool children in integrated classrooms were asked to rank their preferences for playing in a few different play contexts with three toy figures; one figure represented a typically developing child, one represented a child in a wheelchair, and the other represented a child with a cognitive impairment. For the free

play context, children did not show a significant preference for the typical child. However, they did report a preference for the typical child during the play contexts with functional demands, such as in the classroom and on the playground.

Following this part of the study, Nabors and Keyes recruited another group of preschool children and asked them to look at pictures of each of their classmates (including those with and without disabilities) and report whether or not they would like to play with that peer. If the child did not spontaneously give reasons for their choices, then the interviewer would ask them for this information. Unlike the results from the first part of the study, children did not substantially choose typically developing peers over those with disabilities. The only significant factor affecting playmate preferences was gender. This further supports the information in the gender discussion above. Although this group did not report preference for their typically developing peers, they did make more positive comments about their same-sex peers without disabilities. However, comments about liking their classmates with disabilities were made by the participants, and these usually referenced participating in activities together. Thus, it seems likely that children develop more positive perceptions about peers with disabilities when they take part in cooperative activities together. This emphasizes the benefits of inclusion classrooms and supports the need for more shared activities for children with and without disabilities.

Buyse, Nabors, Skinner, and Keyes (1997) investigated the preferences that typically developing preschool children had for their classmates in five inclusive preschool classrooms through a peer rating interview with each of the child participants. The results from the child interviews indicated that the children with disabilities received significantly lower peer ratings than their typically developing peers. Girls also received higher ratings than boys, meaning that boys with disabilities received the lowest ratings.

A positive finding of this part of the study, however, was that ethnicity did not play a significant role in these ratings.

The teachers in these classrooms were also asked to complete a questionnaire, rating how much each child in the class would prefer to play with each of his classmates. For example, the teacher would rate how much “Bobby” liked to play with “Chris” and then how much “Chris” liked to play with “Bobby.” The teacher’s possible responses ranged from “not at all” to “a lot.” The teachers reported that in half of the student pairs made up of one typically developing child and one child with a disability, both children would choose not to play with the other. Interestingly, only 21% of the pairs made up of two typically developing children were reported as peers who did not like each other. However, the teachers reported that both of these types of friend pairs resulted in almost the same proportions of mutual friendships. The authors interpreted these findings to imply that while children with disabilities will be chosen as friends, they may be more likely to develop negative relationships with other peers (Buysse et al., 1997).

Diamond (2001) also interviewed a number of preschool children who were enrolled in an inclusive program for children with and without disabilities. The participants were shown pictures of a child in a wheelchair playing with others and then shown a picture of the same child playing separate from a group of children. To measure their acceptance of peers with disabilities, they then had to choose which picture they felt would most accurately represent the child’s social situation if he/she were a real child in a wheelchair. The children were also observed during free play activities to gather how frequently they interacted with their classmates with disabilities. Results indicated that the children who were observed playing with peers with disabilities provided more positive acceptance ratings for individuals with disabilities than did the children who were only observed socializing with their typically developing peers. This lends

additional support to the benefits of inclusion and the notion that children will develop more positive perceptions of individuals with disabilities if they have had social contact with such individuals.

In a longitudinal study that was completed over the course of a year, older preschool children were found to significantly prefer their same-sex peers without disabilities compared to younger preschool children (Diamond, Furgy, & Blass, 1993). Three- and four-year-old children were asked to rate each of their classmates in their integrated preschool by stating whether they liked him or her “a lot,” “a little,” or “not at all.” After this task, each child looked at pictures of all of their classmates and selected three “best friends.” At the beginning of the school year, the younger group of participants (3-year-olds) did not appear to base their friend choices on gender or disability status. However, the 4-year-olds exhibited a substantial tendency to select peers of the same sex without disabilities. Interestingly, at the end of the year, the sociometric ratings provided by the 3-year-olds decreased for all of their peers- those with and without disabilities. In addition, although the 4-year-olds’ peer ratings stayed relatively consistent throughout the year, positive differences in friend selections were observed, though they were not found to be statistically significant. None of the 4-year-olds with disabilities were selected as a “best friend” at the initial interview, but at the end of the year, nine of them were chosen by a typically developing peer. Despite this positive display of acceptance, the overall trends of this investigation suggest that as children get older, they become more likely to select more friends based on observable characteristics, such as gender and disability status.

Researchers (Nabors & Keyes, 1997) also investigated the preferences that preschool children might display toward children with various physical disabilities. Participants ranked children from four line drawings with whom they would prefer to

interact during a number of contexts. The drawings depicted a physically normal child, a child with a facial scar, a child wearing a leg brace, and a child in a wheelchair. The hypothetical contexts used were the classroom, lunchtime, playground, reading, and watching television at home. The children were also asked to rank the drawings in response to the question, “Who do you like best?” The children were separated into three age groups (younger than 4-years old, 4-year-olds, and 5-years-old and older), and their responses were examined. The youngest group did not report significant preferences for any of the children in the drawings except for in the reading context. Both of the older groups selected a clear preference for one of the drawings in three of the five contexts and chose the physically normal child in response to the “like best” question. Interestingly, the younger than 4-years-old group most often chose the child with the facial scar first for the “like best” question.

When evaluating the children’s responses based on race, there were significant differences. Unlike the Caucasian children, who typically selected the physically normal child for all questions, the African American children did not significantly demonstrate a preference for any of the contexts. However, the African American children did tend to select the child in a wheelchair first for the reading context and the “like best” question. The variation observed in the responses of the African American children could have been impacted by the fact that most of them were younger than the Caucasian children and therefore, may not have been as aware of the limitations faced by children in wheelchairs (Nabors & Keyes, 1997).

Whereas a number of the previously discussed studies may lead one to assume that children with disabilities are being rejected by their typically developing peers, Nabors (1997) gathered information that may support the conclusion that children with special needs are being neglected rather than rejected. Nabors had a group of typically

developing children enrolled in inclusive preschool classrooms name three classmates they would like to play with and three classmates they would not like to play with in a couple of different contexts. The results revealed that while the children with special needs did not receive significantly more negative nominations from their peers, they did receive significantly fewer positive nominations. This supports the hypothesis that children with special needs may be ignored or neglected by their peers who are typically developing. It is likely that because typically developing peers are not seeking out their classmates with special needs, the children with special needs are not having as many positive social experiences and would consequently, not have a positive social status in the classroom. More interactive activities for all the children in the classroom might help improve the child with special needs' social status and competence.

The studies above present a consistent trend. Preschool children start demonstrating preferences for their peers who are “like themselves” or may be perceived as “normal” or the “majority.” These preferences are seen in children as young as three years old and seem to only get stronger with age. This finding reflects the need for programs to address these negative perceptions in children as young as preschool-age and lend support to the notion that children at the age of typical onset of stuttering are at risk for being treated differently than their typically developing peers.

Development of Awareness of Stuttering

The research completed by Ambrose and Yairi (1994) and Ezrati-Vinacour et al. (2001) has revealed that the awareness of stuttering is present in some children as young as three years old and that children become increasingly aware of stuttering as they grow older. Ambrose and Yairi (1994) measured the awareness of stuttering in preschool children who did (experimental group) and did not stutter (control

group) between the ages of 27 and 65 months. At three sessions over two years, the participants were asked to watch a video of two identical puppets saying three sentences in either a fluent or disfluent manner. The participants were then asked to identify the puppet who talked like they did.

The preschool participants were separated into an older and a younger group. At the initial testing session, both the children who stutter and those who do not stutter identified with the correct puppet to a very slight degree. As the children got older, both the experimental and control groups increasingly identified with the fluent puppet. However, the children in the control group identified with the fluent puppet more frequently than the children in the experimental group did. This suggests awareness of fluency or stuttering in some of these preschool children and an increase as children get older. The fact that the children who stutter increasingly identified with the fluent puppet could have partially been due to the fact that they already had negative perceptions about stuttering. Similar to the research concerning obese children, the children who stutter may have selected the fluent puppet because they are aware that fluency is the norm. In fact, the authors stated that they had the impression that several children from the experimental group identified with the fluent puppet though they appeared to recognize that they actually spoke like the disfluent puppet.

In a similar study, Ezrati-Vinacour et al. (2001) investigated the awareness and perceptions of stuttering in five groups of young children who did not stutter. These groups were made up of 3-, 4-, 5-, 6-, and 7-year-olds. Participants watched a video of two identical seals speaking, fluently and disfluently. After viewing each of six pairs of one fluent sentence and one stuttering-like disfluent sentence, the child completed the discrimination and self-identification tasks. To do so, they stated whether the puppets spoke in the same way and then identified the puppet that spoke like them. Following the

presentation of one disfluent sentence, each child was asked to label that manner of speaking and to report if that manner of speaking was good or not. Finally, the seals were shown producing another pair of sentences- one disfluent and one fluent. The children were then requested to choose which puppet they wanted to play with and explain why.

For the first two tasks of awareness, significant differences were observed between the ages of 4 and 5 years. The average scores for both of these tasks were at least a 5.00 out of 6 in the 5-year-olds and older. In the younger two groups, the mean scores for the discrimination and self-identification tasks were 3.06 or lower. This shows that while some of the children demonstrated awareness of disfluency as young as three, children do not become “highly” aware of disfluencies until the age of five (Ezrati-Vinacour et al., 2001, p. 373). Results of the final three questions demonstrated a strong preference for the fluent puppet beginning at the age of four, though it wasn’t until the age of five that children significantly offered speech reasons for their preferences. The increasing categorization of the disfluent speech as “not good” and the growing selection of the fluent puppet as a friend with age, reveal that negative perceptions of stuttering exist in preschool children and only continue to increase as children get older.

The work of Vanryckeghem et al. (2005) also reflects the assumption that negative perceptions about disfluent speech exist in preschool and kindergarten children. The participants consisted of 63 children who do not stutter (CWNS) and 45 children who stutter (CWS) between the ages of 3;0 and 6;5. Using a measure called the KiddyCAT (Communication Attitude Test), the authors asked the participants a series of questions that were developed to provide insight into their thoughts and feelings about their speech. A lower score was consistent with a more positive communication attitude, and the CWNS scored significantly lower than the CWS. In fact, 92% of the CWNS had

better attitudes about their speech than the average CWS when analyzing the responses on the 12-item KiddyCAT. Again, these findings support the belief that children who stutter as young as 3-years-old carry negative perceptions about stuttering and are more likely to have negative feelings about their speech. The following pilot investigation was completed to determine if a CWS who is aware of her speech disfluencies will follow the trends of the CWNS who preferred a fluent friend to a disfluent friend.

METHODOLOGY

Participants

One preschool-aged child who stutters who was receiving speech therapy for stuttering at the Austin Center for Stuttering Intervention and Research (ACSIR) located at the University of Texas Speech and Hearing Center completed this pilot investigation. The participant was a 4-year, 6-month-old girl who had been seen in the ACSIR lab for approximately 9 months.

During preschool ACSIR therapy sessions, children learn about different ways of talking with the goal being that they will, in turn, learn that by moving their articulators in certain ways, the likelihood of stuttering will either increase or decrease. They also learn how to say a stuttered production again with less tension, how to pause and take turns prior to talking and how to speak at a significantly slower rate of speech. The children also participate in a play-based interaction with their parents at the end of each session to help transfer fluency facilitating skills learned in the clinic room to the home environment. The participant in this pilot study received group therapy once a week for one hour.

Procedure

In the present study, the author used a method similar to that utilized by Ezrati-Vinacour et al. in 2001 in order to investigate how the awareness of stuttering would impact the friend selection of CWS. Awareness of stuttering was determined through discrimination and self-identification tasks. The participant's social preferences related to stuttering were identified through an evaluation task.

Similar to the studies by Ambrose and Yairi (1994) and Ezrati-Vinacour et al. (2001), the current participant viewed a video presentation of two seal puppets speaking

in front of a yellow backdrop. The puppets only differed from one another in the way that they spoke. The puppet on the right exhibited speech containing stuttering-like disfluencies, while the puppet on the left exhibited typically fluent speech. The voices of the puppets were produced by an adult female in the manner of a small child. To complete the following tasks, the participant viewed the video and was asked a series of questions during one of her scheduled therapy sessions at the ACSIR lab.

DISCRIMINATION AND SELF-IDENTIFICATION TASKS

The tasks used to measure the participants' awareness of stuttering were similar to those employed by Ezrati-Vinacour et al. (2001). The six sentences spoken by each of the puppets in the current video were the English translations of the sentences presented in the model study. As in the Ezrati-Vinacour et al. (2001) study, the presentation of each sentence was randomly produced by the fluent or disfluent puppet first. Therefore, if the disfluent puppet said a sentence first, then the other puppet would repeat it fluently. During all verbal productions, regardless of which puppet was speaking, both puppets remained on the screen. Table 1 provides, in order, the sentences that were spoken by both puppets in the video.

Table 1: Puppet Script: Sentences in the order they were produced by the puppets for the discrimination and self-identification tasks; repeated letters or words represent sound/syllable or whole word repetitions, --- following letters represent audible or inaudible sound prolongations

Puppet	Sentence	Puppet	Sentence
Fluent	I have a ball.	Fluent	I play with a car.
Disfluent	I I I I have a b b b ball.	Disfluent	I--- play with a c---car.
Fluent	The dog runs quickly.	Disfluent	Th--- the big car t---travels far.
Disfluent	The the the the dog runs k k k quickly.	Fluent	The big car travels far.
Disfluent	I I I I am building a tower of b b b blocks.	Disfluent	We w---were at the beach with d---dad.
Fluent	I am building a tower of blocks.	Fluent	We were at the beach with dad.

After the participant viewed the puppets produce each of the six sentences, she was asked the following two questions: (1) Do the puppets talk the same way (*discrimination task*)? and (2) Which puppet talks like you (*self-identification task*)? While the participant answered the questions, she was still able to see and point to the puppets, when necessary, because the video had been paused and the image of the puppets remained on the computer screen.

EVALUATION TASK

Following the first two tasks, the participant was asked another two questions in order to evaluate whether she held any negative perceptions about stuttering-like disfluent speech that would impact her playmate preferences. These questions were presented after the puppets produced one last sentence each. Again, one puppet spoke

fluently and the other disfluently. This final sentence also came from Ezrati-Vinacour et al. (2001) and was “Turn on the light for me” (fluent) and “T t t turn on the light f f f for me” (disfluent). Both puppets were visible on the screen as the participant answered the following questions: (3) Which one would you like to play with? and (4) Why?

RESULTS

Awareness

The participant's awareness of stuttering-like disfluency was judged by her responses during the discrimination and self-identification tasks. Following the puppets' presentation of the six sentence pairs, she stated that the puppets did not speak in the same way. Also, she identified the disfluent puppet as the one that spoke like she did. Based on her answers, we can assume that this child has an awareness of disfluency in others as well as herself.

Friendship Preference

To evaluate the participant's perceptions of individuals who stutter and her friendship preferences, she was asked to select a playmate from the disfluent and fluent puppets. She chose the fluent puppet as a preferred friend. When she was asked why she chose the fluent puppet, she did not give an answer but stated "Just 'cause."

DISCUSSION

The purpose of the current research was to investigate the available literature to gain an understanding of the trends of friendship preference in preschoolers and to determine if a preschool CWS who was aware of her stuttering would follow those trends as she selected a potential friend. In this section, the participant's responses in the pilot investigation will be discussed and possible reasons for her answers, as they relate to the reviewed research, will be evaluated. Additionally, the need for stuttering education for preschoolers will be indicated.

The participant included in this pilot study demonstrated awareness of stuttering and a preference for a fluent friend. Her level of awareness might be considered impressive when compared to the Ezrati-Vinacour et al. study (2001), where the 4-year-old group demonstrated this same awareness less than half of the time. However, her awareness may have been in part due to the fact that she had been receiving speech therapy for stuttering for the last nine months. During therapy, she participated in activities where she listened for and identified moments of disfluency in her speech and the speech of others. Had she not been practicing these skills in therapy, she may not have demonstrated this same level of awareness.

In addition, her selection of the fluent puppet as a friend follows the trend found in the work of Ezrati-Vinacour et al., in which 68% of the 4-year-olds chose the fluent puppet as a preferred friend (2001). It is also consistent with some of the friend preferences research discussed above that demonstrated the preference for friends that represent the "normal" or majority groups. As seen in the preschool boys' selections in the work of Fishbein and Imai (1993), the boys from all of the represented racial groups tended to prefer white boys as friends. Also, a number of the aforementioned studies

revealed preferences for typically developing peers to those with disabilities and preferences for thin or average-sized peers to chubby or overweight peers. Because stuttering is a low incidence disorder, children who stutter are a minority. As such, they will be perceived as different by their peers and may feel rejected. This may lead CWS to reject themselves and attempt to identify with the majority.

However, the participant's friend selection did not follow much of the gender or race research above that demonstrated preference for friends similar to oneself. This difference may be related to the finding that these preferences for friends who are physically comparable appear to increase with age. It may be possible that children who stutter will prefer their peers who stutter as they grow older. On the other hand, stuttering may be perceived as a difference that is too far from "normal" and less accepted than differences in race and may continue to be a rejected trait. This was seen in obese children who continued to prefer thin children as they got older. It would be interesting to compare the rates at which CWS and CWNS prefer the "normal" fluent friend. Similar to the findings for obese children, CWS may more strongly reject peers who stutter due to an increased sensitivity to the negative perceptions against people who stutter and their desires to identify with the fluent population.

Another possibility altogether may be that this one participant simply randomly selected the fluent puppet as a friend. She did not state a speech-related reason for doing so, which could mean that she could not explain why she preferred the fluent puppet or that she really does not have a negative perception of CWS and, therefore, did not actually prefer the fluent puppet. Either way, because we do see an increasing trend toward the preference for fluent friends in CWNS, educational programs that aim to reduce negative perceptions of individuals who stutter and decrease the rejection of these peers should be provided for both CWS and CWNS.

In closing, Johnson et al. thought that making one aware of his or her disfluencies would have a significant impact on the onset of the disorder (as cited in Ambrose & Yairi, 1994). Because of this belief, stuttering treatment in the past focused on indirect approaches, such as parent counseling in which they were told to avoid calling attention to the child's disfluencies (Conture, 2001). However, it is apparent, from the research above, that preschool children are aware of speech disfluencies and may be aware of the negative perceptions tied to these disfluencies. Therefore, ignoring the disfluencies of CWS may cause CWS to feel more ashamed of the way they speak. In addition, without education about stuttering, CWNS may continue to prefer fluent friends. It is possible that CWS may ultimately have greater preferences for fluent peers than CWNS, as was seen in the obese children who showed stronger preferences for thin friends than the thin or average children. This may lead the CWS to discontinue attempts to socialize or to act out inappropriately. Either way, it seems possible for negative perceptions about stuttering to negatively affect the social functioning of children who stutter. Therefore, it appears necessary to not only address these perceptions with children who stutter early in intervention, but also to educate others about stuttering in the hopes of decreasing or diminishing the negative perceptions held by the general public.

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Vita

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