



Dean's Undergraduate Research Fellows

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Title: Building a Bridge: Helping children with autism to communicate
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Purpose of Study

The purpose of this study will be to locate a family of a young child with Pervasive Developmental Disorder (PDD)/Autism, secure permission for conducting research, and videotape the parent and child in play. The researchers will ask to visit the family in the home environment, as this is the place in which both the parent and the child should feel most comfortable. However, if this is not possible, then a room at DC will be reserved and the child and parent can come to campus. The videotape will then be analyzed with special attention paid to the communication skills of the child, her eye contact, and her attention to her surroundings. Initially, in order to obtain baseline data, three sessions will be videotaped, each lasting approximately 15-20 minutes. The child's behaviors will then be analyzed and one or more behaviors will be pinpointed. Baseline will then be calculated.

Following analysis of the baseline data, the researchers will then ask the parent to once again play with his/her child, but this time to imitate the behavior of the child completely. A duplicate set of toys, appropriate for the child's age, will be introduced into the environment and the parent will be instructed to play with the same toy and in the same manner as the child. For example, if the child selects the toy truck, turns it over, and begins to spin the wheels of the truck, then the parent will select the duplicate truck and manipulate it in the same way as the child. The idea is for the parent to enter the "world of the child" and imitate the child's behavior, something which is not a typical interaction used when parents of children with autism are asked to play with their child. In addition, the parent will be asked to imitate ALL actions of the child's behaviors. If the child exhibits a stereotypical behavior, such as hand flapping, licking the walls, or rocking repetitively, then the parent will imitate that behavior as well. However, it should be mentioned, that the parent will not be expected to do something which is unhealthy. For example, if the child actually licks the walls, then the parent will approximate the behavior without having to imitate exactly. The interaction between the parent and child will be videotaped and then analyzed.

Review of Literature

Numerous studies have examined the prominent role played by imitation in the development of the young child. As imitation is a main link between the development of language and communication in normally developing children, it can be assumed that this is the missing link to communication for those with PDD/autism. If imitation could be incorporated so that it would in some way encourage communication, it would be possible to bring together the world of those with autism and “our world”. The idea of having an adult mimic, or imitate, a child with autism has received growing support in the past few years. The reasoning behind this concept is quite simple. By imitating the child, we are now showing him or her that he/she has control over the present environment (Hwang & Hughes, 2000), or at least more than that to which he or she is accustomed. As stated by many researchers, “. . .imitation is a recognized exchange, or connection, between two persons and thereby creates a feeling of shared understanding between them” (Escalona, Field, Nadel, & Lundy, 2002). Once this communication is established, the child will be able to receive better care, both from a medical/therapeutic standpoint and from his or her family as well.

Although it would be possible to have adult imitators from a pool of hand picked researchers, it is best that the child is imitated by a parent or primary caregiver (Ozonoff & Cathcart, 1998; Moes & Frea, 2002). There are several reasons why working in the home is the best option in a case such as this. First of all, when treating a child with any developmental disorder, it is important to maintain consistency (Ozonoff & Cathcart, 1998). With the parents as the imitator, the child will only be confronted with one or two additional people during this new, and possibly confusing, transition. Keeping parents involved is also advantageous as there is now potential for a stronger bond between the child and parent (Ozonoff & Cathcart, 1998; Mahoney & Perales, 2003). Not only will the child feel more connected to his or her family, but many parents report a greater sense of well being, and of being more competent parents (Ozonoff & Cathcart, 1998).

Over the past 20 years, more and more researchers have been testing the validity of using adult imitation with children who have differing severities of autism. The results that have emerged support this method of communication and treatment for individuals with autism, not only initially, but later in their lives as well. Obviously, the earlier this action takes place, the more responsive the child is prone to be, and the better the outcome of the child’s development (Doty & Wolery, 1992). Although there are a few different strategies that researchers have used, the majority of studies resulted in several positive outcomes. The following studies focus on *contingent imitation*, where an adult will be imitating a child’s actions, largely with the aid of toys (Hwang & Hughes, 2000).

Two earlier studies conducted by Harris, Handleman, and Fong (1987) and Tiegerman and Primavera (1984), using contingent imitation alone, found that this method of treatment increased communicative behaviors dramatically (Hwang & Hughes, 2000). After being imitated by an adult, the children used in these studies had an overall increase in eye contact and attention, showing that the child was more aware of and involved in what was taking place in the room (Hwang & Hughes, 2000). The imitation was not limited to actions involving toys, however. The imitator was instructed to follow every action, including self stimulatory behavior such as rocking, hand gazing, repetitive

remarks, or hand flapping. Imitation of these actions also showed an increase in positive behaviors (Hwang & Hughes, 2000).

Conclusion

It is the intention of this study to replicate prior research using parents as imitators of their PDD/autistic child's behaviors. Prior research from the primary researcher supports the need for further exploration of this subject and it is hoped that the results will yield data that can be shared with the special education community both locally and nationally. The researchers intend to present their findings at one or more national conferences.