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**THE ROLE OF PROSOCIAL SKILLS IN DEVELOPING LANGUAGE OF
YOUNG CHILDREN WITH HEARING LOSS**

by

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**An Independent Study
submitted in partial fulfillment of the
requirements for the degree of:**

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Approved by:

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Abstract: This paper explores the ability of children with both normal hearing and impaired hearing to demonstrate examples of empathy, understanding, kindness, concern, cooperation, helpfulness and other prosocial behaviors. In addition, this paper assesses the correlation between the language development and prosocial skill development.

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Introduction

This literature review investigates two variables in children with hearing loss: language development and prosocial skill development. A variety of literature surrounding these two variables is discussed including research on children with typical hearing, children with language impairment and children with hearing loss. The topics of concern include social skill development, social competence, language development, prosocial skill development and the social effect of impaired language development. The aim of this literature review is to investigate what is known about language development in children with hearing loss and determine how this correlates with what is known about social skill development, and more specifically, prosocial skill development, in children with hearing loss.

While much research has been done on both the topic of language development and the topic of social skill development in children with hearing loss, there is a dearth of information about prosocial skill development in children with hearing loss. This literature review examines the limited information related to prosocial skill development in children with hearing loss in order to draw conclusions about the relationship of these two factors – prosocial skills and hearing loss – and to consider the effect this relationship might have on quality of life. This topic is important for parents and caregivers, families of children with hearing loss, teachers of the deaf, speech-language pathologists, audiologists and any professionals providing support for children with hearing loss.

Defining Prosocial Skills

In order to investigate the correlation between language development and prosocial skill development, it is important to establish an understanding of prosocial behaviors and skills. Prosocial skills, according to Brief and Motowidlo (1986) refers to “positive social acts carried out to produce and maintain the well-being and integrity of others”. Eisenberg, Fabes and Spinrad (2006) have made further distinctions about prosocial skills, indicating that it must be performed voluntarily, and must be rooted in an individual’s intent to benefit another. Specific behaviors that may be seen when observing prosociality include sharing, cooperating, helping, comforting, empathizing and extending kindness or concern (Ladd and Profilet, 1996; Brief and Motowidlo, 1986). Children often perform the aforementioned specified acts when they are instructed to do so by an adult. Therefore, it is important to note that the acts are only considered prosocial skill when done freely and willingly.

Prosocial skills can present themselves in a variety of mediums, including through touch, eye gaze, facial expression, physical acts and verbal communication. For example, Child A begins to cry after his block tower falls on its own. Child B stops what he is doing to help Child A rebuild his tower. This is considered a physical act of prosocial behavior. During the physical act, Child B might also simultaneously exert prosocial behavior via facial expression, eye gaze and verbal communication, but the physical act alone is considered prosocial without the additional simultaneous behaviors. In the same instance, if Child C, across the room, calls out to Child A, “Are you ok?,” this is categorized as a prosocial behavior using verbal communication, even if Child C made no physical act to come comfort Child A.

The importance of prosocial skill development is especially evident in friendship development. Prosocial skills act as a foundation for friendship building, and help children get along with peers (Patten and Robertson, 2001). In addition, prosocial behaviors allow children to express positive social feelings both verbally and nonverbally, no matter their language ability. This opportunity for nonverbal expression and friendship building through prosocial behavior is especially important for children with hearing loss, a population with high prevalence of language delay.

Social Competence and Language

Social competence is often evaluated in terms of peer regard, prosocial abilities and interpersonal skills. According to a 1997 study on measuring social competence, a child demonstrating social competence initiates social interactions and exhibits smooth social interactions with peers by about eight years old. (Rydell, Hagekill, Bohlin, 1997). Children with hearing loss often experience communication breakdowns, which result in difficulty with social interaction. For example, a hypothetical 6-year-old, Child A, is unable to answer a peer's question at recess. The result is a communication breakdown that could lead to negative associations between Child A and the peer. In addition, these negative associations make both Child A and the peer less likely to engage in future social interactions with one another. In this example, Child A lacks the ability to initiate smooth social interactions, indicating his lack of social competence by definition (Rydell, et al., 1997).

It is a widely accepted notion among professionals who work with children who are deaf or hard of hearing that hearing loss has a negative impact on the rate of spoken language

development in children as compared to children with typical hearing. Low language development is associated with high occurrence of communication breakdowns during interactions with peers, teachers and parents (Andersson, Olsson, Rydell, Larsen, 1999). Communication breakdowns negatively impact children who are learning to communicate in many ways, including lowering self-confidence in communication skills and lessening the chance of initiating social communication in the future. Therefore, many children with hearing loss may be at risk of delayed social skill development.

Not only do children need language to express themselves and their thoughts to others, but they need language to help them think through their social behaviors. Vygotsky's 1986 study, "Thought and language" states that children utilize internal speech or "self-talk" to adjust their personal behaviors (Vygotsky, 1986). This idea that self-talk plays an integral part in controlling behaviors is indicative of the important role that language plays in self-regulation and social competence.

Social competence is an essential part of building and maintaining friendships, surviving in a world centered upon communication and fostering positive internal self-perception. Social competence is also a known predictor for academic success (Berghout and Draper, 1984; Green, Forehand, Beck, Vosk, 1980; Wentzel, 1991); which should be of great concern to professionals and educators working with children who have low social competence.

Social Skill Development

Social skills begin to develop very early in a child's life. A child's first social interactions are with parents and caregivers. These first social interactions provide experiences for infants and young children to learn basic communication skills such as eye contact, vocal intensity and

varying pitch. As the child continues to grow, he or she will encounter many other opportunities for social interaction, such as visiting grandparents and other family members, playing with peers, siblings or cousins of similar age groups, and eventually interacting with children and teachers at school on a daily basis. From birth, socialization occurs naturally without instruction, and if the child is typically developing, he or she is likely to innately develop age-appropriate social competence by merely interacting with others.

Prosocial skills also begin developing early in life. Research done by Warneken and Tomasello in 2007 has shown that prosociality can be observed developing as early as 14 to 18 months. The same study found that children as young as only 12 months exhibit concern for others who are visibly in distress, and will exhibit early prosocial skills by attempting to comfort those who are in distress (Warneken and Tomasell, 2007). Warneken has done numerous studies on prosocial development and has found the developmental range of prosocial skills to be between 12 to 18 months until solidification at about five years (Warneken, 2012).

Prosocial skills are also integral to social competence and play an essential role in building and maintaining friendships. Friendships are vital in developing the child as a whole, and serve to provide support, self-esteem, stress relief and overall well-being. Studies have shown that a lack of friendship, or poor quality friendship, leads to high stress and developmental psychopathologies. (Durkin, Conti-Ramsdaen, 2007; Silverman, 2005).

Language Impairment and Social Skill Development

Much research has been done on children with specific language impairment, or the broader category of language impairment (LI), and their developing social skills, behaviors and prosocial traits. Data on children with hearing loss and their prosocial development is harder to

come by. Yet it could be very useful to examine data on children with LI as a means to project similar outcomes for children with hearing loss. For this reason, it is important to recognize the similarities between children with LI and children with hearing loss. Some children with hearing loss can be included in the classification of children with LI, but not all children with LI have hearing loss. The LI diagnosis is made for a child developing language in a delayed or disordered manner, as a variation from what is seen in children who are typically developing. Children that often fall under the LI diagnosis may include children with physical speech mechanism abnormalities, children with intellectual disabilities, children with certain syndromes or disorders (such as Autism Spectrum Disorder), children with damage to the brain or children with damage to any or multiple parts of the auditory system.

Children with LI, including but not limited to children with hearing loss, are at a higher risk for withdrawn or anti-social behaviors in comparison to their age-matched peers who are typically developing (Fujiki, Brinton, Morgan, Hart, 1999). A study completed by Brinton and Fujiki in 2004 entitled, "Social and affective factors in language impairments and literacy learning", found that children with LI face social challenges including lack of acceptance from peers, withdrawn and silent mannerisms and difficulty making friends. Other studies have investigated the reasons behind social difficulties in children with LI. These studies indicate that the reasons for social difficulties include impaired language itself, the inability to use theory of mind skills to determine how others are feeling and the inability to use inferencing skills to predict how others may respond in different ways (Ford and Milosky, 2003; Tasker, Nowakowski, Schmidt, 2010; Rimmel and Peters, 2009). As a result of the deficits children with LI experience and display, teachers and peers often rate these children as having poor social

skills, persistent behavioral problems and general traits that are undesirable in a playmate or friend (Gertner, Rice, Hadley, 1994).

In addition to facing social challenges, children with LI often must also deal with overwhelming frustration in social situations. When a child is faced with challenges that prohibit him or her from fully engaging in social situations, or that prohibit him or her from satisfying the innate need to connect with peers, feelings of frustration, inadequacy and defeat are likely to arise.

The social effect of these feelings is detrimental for the child in many ways. First, the child's mental health is likely to be compromised from feelings of inadequacy and a lack of sense of belonging. Additionally, the child is likely to associate negative feelings toward social interactions and situations, which will further prohibit growth in social skill development. The child is even more unlikely to find adequate reason for fostering prosocial skills when negative feelings are in place concerning peer relationships. The likelihood of developing prosocial skills that will aid in building or maintaining crucial friendships diminishes as the child deals with this myriad of social frustration and social difficulty.

Effect of Hearing Loss on Prosocial Development

We know that hearing loss can have a negative impact on spoken language development and language impairment has a negative impact on social skill development. With this knowledge in mind, we have strong support to suggest that hearing loss causes a predisposition for poor social skill development. It is also expected that hearing loss will, in turn, have a negative impact on prosocial skill development. Some studies contribute to the support of this expected correlation between hearing loss and prosocial skill development. For example, the

study by Martin, Bat-Chava, Lalwani and Waltzman in 2011 was done on peer relationships of children with cochlear implants. This study examined both children with profound hearing loss and children with typical hearing in the same peer group. The children were unfamiliar with each other, and therefore had no prior relationships established. The study then placed both children with hearing loss and children with typical hearing into groups of 2-4 children to observe their social play (Martin, et al., 2011).

The data collected from this study supports the theory that prosocial skills are negatively impacted by hearing loss in the following ways:

- 1) The longer the duration of cochlear implant use, the higher prosocial skill scores were documented (ie. cooperative play, positive interactions).
- 2) Children with hearing loss struggled with the prosocial skill of entry bidding (initiating a social interaction to gain access to the group) in groups of 3 or more, no matter how long their device had been in use.

It is also interesting to note that 80% of the children with hearing loss experienced some degree of communication breakdown during the play observations, and it was often a peer with typical hearing that demonstrated the prosocial behavior of helping the child with hearing loss repair the breakdown.

This study provides a great deal of valuable information on the likelihood that hearing loss negatively impacts crucial prosocial skill development. It also lends to the already widespread notion that earlier, longer and consistent device use is the best measure in combatting developmental delays of many kinds, including prosocial development. Finally, it offers a comparison between peer groups (comprised of children with typical hearing and child with hearing loss) that specifically looks at social skills occurring simultaneously in a given social

situation. It was not surprising to learn that 80% of the children with hearing loss experienced a communication breakdown of some sort, but it is undoubtedly noteworthy that help in repairing the breakdown (a prosocial behavior) was mainly offered from the children who did not have hearing loss.

Conclusion and Discussion

This literature review indicates that spoken language development is positively correlated with prosocial skill development. These indications lead to the conclusion that children with hearing loss who use spoken language, and who are innately at risk for delayed language development, are also at risk for delayed prosocial skill development. The conclusions drawn have many implications on the daily lives of children with hearing loss. Some implications as reviewed in the literature include:

1. Negative impact on building and maintain friendships

Friendships are established most often between peers through positive social interaction by means of prosocial behaviors, including positive language exchange, kindness, sharing and cooperation. People are naturally drawn to other people who exhibit prosocial behavior and friendships blossom during positive social exchange. For this reason, children with hearing loss who exhibit delayed prosocial skill development are likely to have a harder time making friends.

2. Negative impact on self-esteem

Poor prosocial skills and communication difficulties are likely to lead to social isolation and poor self-concept in children. When difficulty making friends is added to these

detriments, self-esteem is even more apt to decline. This is a very important issue to address because it can quickly become an ongoing cycle: poor prosocial skills lead to poor self-esteem, which leaves the child with a lack of motivation to behave prosocially, and so on. Adult intervention is needed to both boost self-esteem and promote prosocial behaviors to prevent the child from continuing to disengage and withdrawal from social situations.

3. Negative impact on academic achievement

Social competence, including prosocial competence, is a known predictor for academic success. In addition, reduced academic achievement often stems from delayed language and communication skills (Berghout and Draper, 1984). Children learn from their peers in everyday situations, including academics. When children are working in groups for an assignment, prosocial skills are needed to cooperate and accomplish the task. Children with hearing loss may often be disengaged, or unaware of what is happening during academic peer work, resulting in a decline in academic achievement. It is important for teachers and other adults to encourage cooperation, and in turn emphasize educational success.

With these implications in mind, it is clear that parents, teachers and other professionals involved in the development of children with hearing loss should address the topic of prosocial skill development. Parents and professionals should model prosocial behavior for children in a variety of situations to promote carryover into real social situations. Consciously fostering prosocial development in children with hearing loss is a great step in addressing the implications that delayed prosocial skill development may have on a child's quality of life.

In the future, it would be interesting to conduct a research study on this same topic of prosocial skill level and language skill level, in order to see if real data supports the conclusions drawn from literature. A research study of this caliber might analyze data from two study groups: one consisting of children with hearing loss and the other consisting of children with typical hearing that are age-matched with the children in group one. Data collected from a study like this would ideally cross-compare and analyze prosocial skill measurements and language scores. It is my hypothesis that the data collected from a study like this would support the findings of this literature review.

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