DIABILITY: EFFECTS ON THE ECOLOGICAL THEORY AND SOCIAL INTERACTION THEORY.

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DISABILITY: EFFECTS ON THE ECOLOGICAL THEORY AND SOCIAL INTERACTION THEORY.

by

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B.S., Southern Illinois University Carbondale, 2011

A Research Paper
Submitted in Partial Fulfillment of the Requirements for the
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for the Degree of
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>ECOLOGICAL THEORY</td>
<td>1</td>
</tr>
<tr>
<td>SOCIAL INTERACTION THEORY</td>
<td>3</td>
</tr>
<tr>
<td>DISABILITY</td>
<td>6</td>
</tr>
<tr>
<td>SIBLING RELATIONSHIP</td>
<td>7</td>
</tr>
<tr>
<td>SIBLING’S RELATIONSHIP WITH PARENTS.</td>
<td>9</td>
</tr>
<tr>
<td>EMOTIONAL IMPLICATIONS OF ATTENTION</td>
<td>13</td>
</tr>
<tr>
<td>SIBLINGS AS LANGUAGE FACILITATORS</td>
<td>15</td>
</tr>
<tr>
<td>COMMUNITY INVOLVEMENT</td>
<td>18</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>19</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>21</td>
</tr>
<tr>
<td>VITA</td>
<td>23</td>
</tr>
</tbody>
</table>
Introduction

Speech and language interventions are focused around theories in relation to a particular child and his or her disability. Two theories in particular typically stand out when we think about children and their language development: the ecological theory and the social interaction/sociocultural theory. Joan Kaderavek (2011) discusses both ecological and social interaction theories. Both theories involve an understanding that language will be impacted by interactions with significant others in the environment, meaning it is important to not only consider the child with a communication need but the wider environment.

Ecological Theory

The first theory to be explained is the ecological theory. The ecological theory looks at a child’s relationship with their surrounding environment, the main source to help form his or her language (Kaderavek, 2011). This theory is primarily associated with the author Urie Bronfenbrenner. Bronfenbrenner developed the ecological theory to clarify how a child and his or her environment can affect how that child grows and develops (Oswalt, 2008). The ecological theory states that a child’s language is developed through their environment: family, peers, caregivers, school, neighborhood, and cultural contexts (Kaderavek, 2011). Within the theory Bronfenbrenner developed three separate systems for each type of environment a child comes into contact with during his or her life span: microsystem, mesosystem, and macrosystem. Between these three systems, there is an interconnection between each one because the child’s functioning is influenced by each system at different levels (Kaderavek, 2011). When a speech-language pathologist chooses to consider the ecological theory as a guideline for intervention, he
or she need to have the intervention focus on strengthening supports and minimizing barriers within the ecological systems (Kaderavek, 2011).

The first system in the ecological theory is the microsystem. This system consists of the child’s family, caregivers, and peer groups (Kaderavek, 2011). Here the child experiences the most social interactions because this may be the first experience of language the child is exposed to which will shape how they use their language. When a speech-language pathologist considers intervention strategies, he/she may consider who is involved in the child’s microsystem and incorporate those individuals into the intervention goals. The second system, the mesosystem, consists of the child’s school, community, and neighborhood (Kaderavek, 2011). Here the child begins to experience more communication opportunities outside the home. The mesosystem is where the child’s language begins to adapt to his/her social environment. Intervention here could include the teachers and other educators. The speech-language pathologist could meet with the educators and parents to help with the child’s Individualized Education Plan goals. The macrosystem consists of the child’s cultural contexts and legal policies that may influence a child’s life (Kaderavek, 2011).

If a speech-language pathologist chooses to base his or her intervention off of the ecological theory then they should include individuals from that child’s environment. If a child is not using language to communicate, the speech-language pathologist can work with the parents and provide them with strategies to use at home. The speech-language pathologist can also collaborate with the teacher and provide the teacher with ideas to help included the child with in class discussions.
Social Interaction Theory

The second theory is the social interaction theory. This theory states that “communication interaction plays a central role in children’s acquisition of language” (Kaderavek, 2011, pg. 19). Research has shown current speech-language pathologist and future speech-language pathologist that language development is tied to a child’s appreciation to other person’s communicative intention, joint visual attention sensitivity, and a child’s desire to imitate behaviors and speech (Kaderavek, 2011). There are three concepts to which the social interaction is tied too.

The first concept is *Infant-directed talk*. This concept is child directed communication and enhances the child’s ability to learn language (Kaderavek, 2011). Characteristics of infant-directed talk are the use of content words like nouns, verbs, etc, in isolation, the placement of these content words on the end of a sentence, increasing the pitch of a voice when stating the content words in a sentence, and talking about the toy or object the child is playing with using “here and now” context. Infant-directed talk has been theorized to facilitate specific characteristics and help children understand the connection between speech, objects, and events (Kaderavek, 2011). The second concept in the social interaction theory is *coordinating attention*. In this concept the adult will follow the focus/attention of an infant/child to what they are focusing on in the area (Kaderavek, 2011). This can show the child they are capable of establishing communication through visual concepts. There is evidence of coordinating attention in a study by Frey, Kaiser, and Trent-Stainbrook (2007) that will be discussed in later discussions. The third concept is *Parent-child communication routines*. This concept allows adults to form scripts for the child. A script is a predictable pattern facilitating a child’s
participation (Kaderavek, 2011). The parent-child communication routines concept also allows
the child the ability to predict what will happen next during play. Some ideas to incorporate into
this concept are games like “Peek-a-boo” or when they are sliding down a slide stating “Ready,
set, go!!!” With these games the child can predict the “boo” in “Peek-a-boo” and “go” in
“Ready, set, go!!” (Kaderavek, 2011).

An author who has built his theory, sociocultural theory, based on the social interaction
typeory is Vygotsky. He incorporated cognitive development and language development into his
theories (Kaderavek, 2011). He believed children build their own language, which agreed with
the belief from Piaget. Piaget, however, believed children build language through physical
objects, whereas, Vygostsky believed they built it through social interactions (Kaderavek, 2011).
Vygotsky proposed that if a child has a capable communication partner like an adult or older
child, possibly a sibling, they can solve problems together (Kadervek, 2011). This can help the
child generalize the process and independently solve problems. Vygotsky believed that private
speech is a key essential to cognitive development. Private speech is defined as a child speaking
out loud as they play with objects (Kaderavek, 2011). For example, if a child is playing with a
doll house, he or she will position the dolls to create a ‘family’. As the child develops this
family they will develop a voice for each doll. Vygotsky also had other concepts of which he
built his theories on.

The first concept is the Zone of proximal development. This concept demonstrates a
child’s competence level and see what the child is capable of doing and what the child is not
capable to doing (Kaderavek, 2011). Vygotsky believed that if you teach a child within the zone
of proximal development, where they are capable to just doing the task, it is the key to maximize the child’s learning. Kaderavek (2011) stated that “the zone of proximal development principle has prompted practitioners to introduce tasks to young children even though they are difficult” (pg. 20). Another concept Vygotsky built his theories on is scaffolding. Scaffolding is when an adult simplifies the difficulty level of a task (Kaderavek, 2011). An example of scaffolding would be a parent or caregiver breaking down directions or allowing the child to see a finished product of the current task. If this is used appropriately then the levels of support from the adult will minimize over time (Kaderavek, 2011). The last concept Vygotsky used is mediation. Mediation is like scaffolding but the goal “is to provide the learner with insights in order to teach the learner “how to learn”” (Kaderavek, 2011). An example would be to have the child write down the steps to a task, repeat the steps back to the parent or educator, or list the items needed to complete a project. The purpose of mediation is to increase the awareness that each task has steps to be completed and each task has a specific amount of steps required for completion. (Kaderavek, 2011).

Speech-language pathologists and other special educators use the social interaction theories when they consider the assessment and interventions of a child. The social interaction theories and sociocultural theories encouraged clinicians to bring the caregivers of a child into the intervention and work with the child in their home and/or classrooms to help increase and build their social interactions (Kaderavek, 2011). It is important to understand that these theories may not be appropriate for all children across cultures. Cultures have different views on children in their society and even if the parents of a specific culture do not use infant-directed speech, for example, they are still capable of learning language (Kaderavek, 2011).
The author of this paper believes children need their environment and social interaction in order to enhance their use of language and/or cognition. I am studying disability because I want to understand the kind of impacts a disability has on a sibling relationship and the sibling’s relationship with parents. In addition, this paper will include a discussion of the emotional implications of attention and siblings used as therapeutic facilitators. Before such an explanation can occur, a clear definition of a disability must be defined.

**Disability**

A disability is classified as a person having a physical or mental impairment which limits one or more of their life activities (www.dol.gov/wb/faq8.htm). These activities may include taking care of oneself, speaking, breathing, or learning. The entire life span for a person with a disability, as well as their family members, is affected by the disability. There are many types of disabilities in the world and each one has their own specific way of being known. Disabilities like Down syndrome and Angelman syndrome have physical characteristics that are unique to that specific disability. These disabilities tend to affect the speaking and taking care of oneself aspects of life. Autism spectrum disorder (ASD) or specific learning disabilities, however, have mental characteristics that may not be visible, but affect the social aspect of the individual, their communication abilities, and their learning abilities (Brown, Gerber & Christopher, n.d.). Any one of these different types of disabilities can most likely impact the ecological systems of not only the child with a disability, but the family unit as a whole, as well as, the typical developing sibling’s.
Sibling Relationship

Published articles that focused on siblings of children with a wide variety of disabilities were studied to examine different types of themes in the vast research, as well as, reflect on what we know about siblings of children with a disability. In this study of research articles completed by Stoneman (2005), he reported on the effects of older and younger children considered typically developing who have a sibling with a disability, the quality of their relationship, and family influences on their relationship. In the research articles Stoneman (2005) used to gather his information, he found that typical developing siblings reported less conflict in their relationship with their sibling with a disability than typical developing sibling relationships. This less conflict-based relationship could be the result of the typical developing sibling having a full understanding that their sibling with a disability is different and may not understand specific concepts. Although the sibling relationship, which includes a child with a disability, is known to be more conflict free, parents tend to perceive the sibling relationship more negatively than the siblings (Neely-Barnes & Graff, 2011). This could be because the parents may pay more attention to the negative behaviors more often than the positive behaviors. A less conflict relationship might be good for the siblings because siblings interact with each other more than any other person in the family (Berger & Nuzzo, 2008).

The sibling relationship is considered to be the longest lasting family connection regardless of if a sibling has a disability or not (Neely-Barnes & Graff, 2011). However, if a sibling does have a disability, the typical developing sibling can act as a “socialization agent”. Abendroth (2009) and Gallagher, Kresak, and Rhodes (2009) refer to the “socialization agent” as the most important function of the sibling relationship because they can provide the socialization
interaction for the other sibling. This socialization is also important because it provides children with the opportunity for the foundations of social and emotional skills for sharing and confliction (Barr, Daniel, & Mcleod, 2008).

Finding an activity both siblings can participate in facilitates this socialization process (Stoneman, 2005). When deciding on an activity, the typically developing sibling will engage in a role that is rich, complex, and dominant so he/she is able to help bring developmental benefits to the learning environment for their sibling with a disability. Roles, as defined by Stoneman, (2005), are “patterns of behaviors that have social meaning” (p. 341). Siblings who are able to develop a higher quality of sibling relationship are also able to act out roles that accommodate to the siblings’ disabilities (Stoneman, 2005). The social and cognitive development of the younger sibling, or sibling with a disability, can be influenced by the typical developing sibling by providing activities that facilitate cognitive development (Berger & Nuzzo, 2008). Any activity where a child is required to use their imagination can be a great way to increase the sibling with a disability’s cognitive process and provide ways to generalize social play into the school setting. The child with a disability can take what the typical developing sibling teaches them during play time and use it when in school and with peers. The sibling with a disability may look up to the typical developing sibling for, possibly, a more directional focus on social and cognitive functions.

In a study completed by Moyson and Roeyers (2012) a total of 50 siblings of 37 families volunteered for the study. The purpose of this study was to report on how young typical developing siblings of children with intellectual disabilities define their quality of life as a sibling. The criteria for each participant are as follows: age of the sibling had to be between six
and 14 years old, the age of the brother or sister with the intellectual disability had to be between three and 18 years old, and the type of disability the sibling with a disability had was either intellectual disability or profound intellectual and multiple disabilities. The typical developing siblings went through a three step interview process. Each interview had questions for the typical developing sibling regarding: joint activities, mutual understanding, private time, acceptance, forbearance, trust in well-being, exchanging experiences, social support, and dealing with outside world. In each area, siblings reported positive aspects and negative aspects about their sibling or being a sibling of a child with a disability. Moyson and Roeyers (2012) found that typical developing siblings are able to express their thoughts and feelings about being a sibling of a child with intellectual disability. Moyson and Roeyers (2012) documented that young children are able to report on their sibling relationship when provided with specific questions and the opportunity to do so. They also found that typical developing siblings, sometimes, enjoy doing activities with their sibling with an intellectual disability but understand why they may not be able too. Only one sibling reported they wished, at times, their brother or sister with a disability was ‘normal’ because of their inability to do activities. This research agrees with Stoneman (2005) which reported that typical developing siblings reported a less conflict relationship with their sibling with a disability. Siblings who are able to express feelings and emotions about being the sibling of a child with a disability appear to have a deeper understanding about their sibling which could help strengthen and build their relationship.

**Sibling’s Relationship with Parents**

In any sibling relationship, regardless of if there is a sibling with a disability, it is impossible for parents to treat each sibling the same (Stonemann, 2005). Being the typical
developing sibling of a child with a disability leads to changes in the relationship with the parents (Barr et al., 2008). In the study conducted by Barr et al. (2008), six typically developing siblings, four males and two females, of children with a speech impairment and no other developmental disorder were the primary focus. Of these six siblings, five, ages 14 years, five years, nine years, eight years, and 11 years were older than the child with the speech impairment. The sixth sibling was a twin. All the children with the speech impairment were boys with no hearing or cognitive deficits. One child had a language impairment and the severity of the speech impairments ranged from mild to severe. Sibling experiences were collected from the typically developing siblings, the teachers, parents to both siblings, other significant family members, and the child with the speech impairment. The purpose of this study had three aims: to view the experiences of typical developing siblings of a child with a speech impairment, understand how living with a child with a speech impairment might impact the life of the typical developing sibling, and understand the ecological standpoint of siblings of a child with a speech impairment. Barr et al. (2008), described the change in sibling/parent relationship as a change from child to parent-like, labeled “parentification”. They describe “parentification” as a time when a typical developing sibling sacrifices their own personal needs so they are not a burden to their parents who have a lot on their plate. This parent-like role can get out of hand, at times, and the typical developing sibling could start to become “the” parent. Because of the amount of responsibilities or chores the parents place on the typically developing sibling, they may mature at a faster rate than their friends/peers (Barr & McLeod, 2010).

The expectations the parents may put on the typical developing sibling may cause them to mature earlier and start to learn how the disability impacts the parent’s life and financial
situation (Barr et al., 2008). This change in treatment could also make the typical developing sibling feel more adult like and cause them to be more of a protector towards the sibling with a disability. Some typical developing siblings can understand why this happens, but other typical developing siblings may not. The literature review completed by Schuntermann (2007) focused on six domains: family-systems perspectives, triadic parent-child interaction, the sibling relationship, the intergenerational setting for the sibling (grandparents), the siblings’ social setting (friends, peers), and the siblings perspectives of giving meaning to living with a brother or sister with a developmental delay, now and across time. He also used articles in his review that compared siblings of children with pervasive developmental disorder to siblings of children with Down syndrome. Schuntermann (2007) found in the studies that focused on siblings of children with pervasive developmental delay or intellectual disabilities, “There are consistent reports that siblings of children with disabilities demonstrate feelings of being deprived of parental time and attention” (p. 96). This feeling could be caused by the parents’ constant need to attend to the sibling with a disability for behavior problems or medical purposes. If a parent is required to attend to the needs of the child with a disability, the typically developing sibling may begin to act out. This, in turn, will cause the parents to treat the typically developing sibling with discipline, which maybe what the typically developing child wants.

Typically developing siblings tend to have more responsibilities taking care of their sibling with a disability than do their peers who may have a typically developing sibling (Barr & McLeod, 2010). Parents may think the typically developing sibling wants to help with the sibling with a disability, so they place more responsibility or pressure on them. These responsibilities include feeding, bathing, dressing, and depending on the age of the typically
developing sibling, providing the medications (www.dol.gov/wb/faq8.htm). Along with these responsibilities of helping the sibling with the disability, helping the parents with household chores are also included. Typically developing siblings of children with a disability have described how their responsibilities as a sibling are different from those of their peers or other children. The bar that is set for specific responsibilities is often set too high (Barr & McLeod, 2010). Older and younger siblings of children with disabilities assume expanded childcare roles as compared to their peers (Stoneman, 2005).

Additional sibling responsibilities and roles have been reported to interfere with participation in extracurricular activities and time with peers (Barr & McLeod, 2010). In a study completed by Neely-Barnes and Graff (2011) research questions were answered pertaining to siblings of children with a disability having higher scores on the Child Mental Health Brief (CMB), increased use of mental health services, and/or increased sibling difficulties. Data was collected data from the 2006 National Health Interview Survey (NHIS) because it was able to address the research questions. Of the seven data sets within the NHIS only three were used for the present study: the family, person, and sample child files. Children under the age of 18 years old were randomly selected from the 29, 868 families, giving a total of 9,837 children used in the Sample Child Survey. Respondents for the children were the parents. Neely-Barnes and Graff (2011) have found that siblings of children with a disability missed out on childhood experiences, for example, going to the movies with peers, because their sibling with a disability was excluded. This could cause conflict with the sibling relationship because the typical developing sibling would see the sibling with a disability as the reason. The exclusion of the sibling with a disability may not only be the choice of the typically developing sibling. The
child with a disability may have a medical condition/issue that needs to be met. If the sibling with a disability has Down syndrome, for example, they are found to have higher medical rates and higher amount of significant health conditions (Cooley, McGrath, Moeschler, & Stransky, 2011).

There could also be an advantage to the increased rate of maturity of the typically developing sibling. This increased rate of maturity could also cause the typically developing sibling to be closer to their parents and to be considered as adults (Barr & McLeod, 2010). Parents may begin to praise the typically developing sibling for all the hard work they have done for their sibling with a disability and the family unit. A typically developing sibling may view this as an award but if it is not always recognized, the typically developing sibling may become resentful and/or aggressive if their efforts of taking care of the sibling with a disability are undermined or not acknowledged (Cuskelly & Gunn, 2006).

**Emotional Implications of Attention**

Typical developing siblings tend to feel isolated when the sibling with a disability receives more attention (Barr et al., 2008). Barr et al. (2008) whose study included six siblings of children with speech impairments aged five to 14 years old, reported that an older sibling of a child with a disability may experience less attention from their parents. They also found that typically developing siblings would compete for attention from an adult by speaking or answering before a sibling with a disability had the opportunity. This finding from Barr et al. (2008) mirrors the information gathered from Berger and Nuzzo (2008). The Berger and Nuzzo (2008) study included parents of 51 sibling pairs. Parents were asked a series of questions asking them to recall onset dates of both children’s motor milestones. The sibling pairs
included: 20 of the same gender (13 males and seven females), 31 pairs of opposite sex gender (18 older females and 13 older males), and children had no history of motor problems. The purpose of this study was to see if older siblings influenced the onset of the younger sibling’s motor development. They found that older siblings did, in fact, influence the younger sibling’s motor development. They felt there may be inconsistency between the amount of attention for the older child before the birth of younger sibling and the amount of attention provided to both siblings. Both studies have conclusive results that siblings of children with disability experience less parental time, therefore, they may become more aggressive in seeking out that parental time.

Typical developing siblings tend to view the sibling with a disability as, “the preferred child” and express more negative emotions about feeling neglected. These negative feelings have been consistent throughout the research literature review from Schunterman (2007) that focused on siblings of children with pervasive developmental delays or intellectual disabilities. It is also stated by Schunterman (2007) that since the typically developing sibling may have a determination to be “normal”, they may bottle their emotions or “relinquish opportunities to secure parental support, since they see their parents may be preoccupied with the child with a disability” (p. 98).

In a Barr and McLeod (2010) study, publicly available internet responses were used from children and adolescent siblings of children with a disability. The website the authors gained their information from was run by an Australian disability organization and was created to provide siblings of children with a disability an opportunity to express their feelings and emotions with others in the same situation. A total of 676 contributions, ranging from one sentence to four pages, were made from the participants. The experiences reported had three (3)
themes: interactions with strangers, interactions with peers, and/or interactions with family members. The typically developing sibling reported the amount of attention the parents split between the siblings as “disproportionate” (Barr & McLeod, 2010, p. 164). This view on attention could result in the typical developing sibling feeling “left out”, “unloved”, or “forgotten” (p. 164). Seeking the need for attention by the adult, the typically developing sibling would take advantage of the situation whether in a positive or a negative way, which also resembles the work from Berger and Nuzzo (2008) that thought there may be inconsistency with the attention from parents to the siblings. Resentment, from the typically developing sibling, was also discovered in the study towards the sibling with a disability because of the constant attention they were receiving by the parents (Barr & McLeod, 2010).

Some parents are aware that the division of attention between the siblings is disproportionate (Schuntermann, 2007). Children who are much older than the child with the disability are able to cope better with the lack of attention they receive by talking to a peer. Parents value this peer as they help their typical developing child cope and adjust to the sibling with a disability and their needs (Schuntermann, 2007).

**Siblings as Language Facilitators**

Communication and social skills are important developmental skills to learn for any individual. When a child with a disability is born into a family, some of the responsibility placed on parents to teach these skills can be uplifted by teaching the typically developing sibling how to provide these skills in a functional manner (Gallagher et al., 2009). Siblings can also be facilitators of such skills and provide adequate input for teaching these skills to a sibling with a disability (Kim & Horn, 2010). Typical developing siblings are also able to provide the
sibling with a disability information and opportunities to increase different motor and language skills (Gallagher et al., 2009). In the study completed by Kim and Horn (2010), they used a single-case design in which eight studies were reviewed to understand if sibling-implemented intervention was beneficial for increasing specific skills or behaviors in siblings with disabilities. They found positive results in the majority of the targeted children. Kim and Horn (2010) also found that interaction and play with siblings has been shown to help with academic achievement and build a successful social life. Since siblings are known to communicate with each other over any other person in the family, the typical developing sibling has the capability to act as an interventionist for helping the sibling with a disability develop their skills (Kim & Horn, 2010). In order for this intervention technique to be adequate for positive results, the sibling needs to be taught how to support their sibling with a disability and to learn specific strategies to help them (Kim & Horn, 2010).

There are positive aspects in teaching a typically developing sibling how to provide functional intervention to a sibling with a disability. The sibling may gain a deeper understanding of their sibling’s disability and understand the learning and social problems they may face in life (Gallagher et al., 2009). It is important for the typically developing sibling to be as much involved as the parents because it will help ensure their adjustment to their sibling with a disability and allow their understanding to grow (Gallagher et al., 2009). Parents have a strong influence on this adjustment for the typically developing sibling and the more they are included, the easier it will be. Parents can also help to stress the positive aspects of the sibling with a disability by showing the typically developing sibling more good things instead of all negative (Gallagher et al., 2009).
In study conducted by Frey et al. (2007), three sibling dyads were used to facilitate an intervention strategy with their sibling with Down syndrome. The typical developing siblings first had a review or training session to teach them the responsive interaction strategy. During this time the sibling with Down syndrome was not present. The siblings then had a 10 minute play-based session, of which only the first 5 minutes were coded due to possible fatigue or less interest in the activity by the sibling with Down syndrome. The results from Frey et al. (2007) were collected from asking typical developing siblings to mirror nonverbal behaviors from their sibling with Down syndrome. The number of verbal responses from the sibling with Down syndrome increased from a baseline between 0 and ten to responses between 10 and 40. This is also true for the verbal response strategy.

Siblings can be great therapy facilitators. There is evidence that they are capable of providing direct therapy services with the guidance from a speech-language pathologist. The goals for the child with a disability should also include goals that the typical developing sibling has learned to teach or implement. If the typical developing sibling understands the goal they are meant to use to implement therapy, then they might be able to look for particular outcomes (Gallagher et al., 2009). Some of the outcomes the typical developing sibling could look for would be ones like the number of utterances or words the child with a disability used, how many times they used language to request items, if they were able to label target items while they were playing, or if the sibling was able to act out the target goal and with how much help from the typical developing sibling.

The study by Gallagher et al. (2009) handed out 153 surveys to parents who attended nine early intervention conferences. The surveys asked questions about the typical developing
sibling of a child with a disability and the Individualized Family Service Plans of the child with a disability. Of the surveys handed out, 87 surveys were used for the study. Twenty-two parents reported the Individualized Family Service plans had a specific goal that included the help of the typically developing sibling. Forty-two parents stated there were no goals that included the help of the typically developing sibling but said they would like to have a goal on the Individualized Family Service Plans. Some of the goals the parents would have liked to see were: education and information regarding the disability for the sibling, “ways to participate to help the child with disabilities learn”, include the typical developing sibling with implementation of the target goal, and “better communication, basic care, and emotional issues regarding the child” (p. 148). Having these particular types of goals may help to minimize parents possible inability or uncomfortable feeling of the typical developing sibling asking questions like “Why is she like that?”, “Why doesn’t she walk like me?”, or “Why can’t he talk?” (Gallagher et al., 2009, p. 148).

**Community Involvement**

When a child with a disability is born into a family, the typical developing sibling’s life becomes more complex (Barr & McLeod, 2010). For example, a sibling may choose their friends based on how these friends react to the news that their friend has a sibling with a disability (Barr et al., 2008). The sibling will continue to use this type of segregation, without even knowing it, through adolescence, adulthood, and even when selecting a significant other (Barr et al., 2008). Barr and McLeod (2010) reported approximately 19% of typically developing siblings chose not to tell their friends about their sibling with a disability because of the fear of the friend’s reactions (Barr & McLeod, 2010, p. 163). Specific concerns like how the
friends will react, or if the sibling with a disability will be having a good day or a bad day tend to be the top priorities. The reactions of the friends to the sibling with a disability can bring on the most worries and uncomfortable settings for the typically developing sibling (Barr & McLeod, 2010). These reactions to the sibling with a disability will be the basis of their friendship through the rest of their lives.

The door to the world of the typically developing sibling can be difficult to open, especially, when their sibling has a disability. This world consists of the trust and respect the typically developing sibling would expect from friends or outsiders about their brother or sister with a disability. Most typically developing siblings love their sibling with a disability and will do anything they can to protect them.

**Conclusion**

With everything we learn in particular fields of study, there are theories. These theories guide us to create ideas and consider concepts we may not have considered before. In the field of speech language pathology, the ecological theory and the sociocultural/social interaction theory are two theories that flow along with children and their environment. The ecological theory believes that our surrounding environments help develop our language through family, peers, and culture, which all include social interactions. Our environments and surroundings help us to develop our language and these are essential when speech-language pathologist develop assessments and interventions. Siblings are capable of providing these speech intervention strategies given the time and opportunity because their relationship is strong and has the least amount of conflict. With the proper education the typical developing sibling can help
the child with a disability to meet their goals set for them by educators or speech-language pathologist.

It can be difficult for parents to provide adequate attention to each sibling regardless if there is a sibling with a disability or not. Parents are aware of this disproportionate attention but when a child has a disability, the parents find it difficult to accommodate for the typical developing sibling. Parents may feel the typical developing sibling wishes to help the child with a disability but the amount of responsibilities they place on them is set too high. Typical developing siblings are able to become language facilitators provided they are included in the goals set for the child with a disability.

Further research should be conducted related to the social implications of disability on sibling relationship. Specific variables of interest include age of the sibling, disability type, and resiliency strategies. As children with disabilities live longer and more inclusive lives, sibling relationships will last longer and offer more opportunities for social and emotional growth. For speech-language pathologist, siblings can be wonderful communication models and partners, for the children we work with. It is important to remember the value of siblings and also our responsibility to siblings in terms of providing information and support.

Speech-language pathologists, who wish to work with children with disabilities, should consider their typical developing sibling as a possible therapeutic facilitator. The speech-language pathologist should make goals that the typical developing sibling is able to understand and implement appropriately. These typical developing children should be incorporated into therapy so they are completely aware of how their sibling with a disability should respond and how it should be measured.
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