Autism Spectrum Disorders and Sibling Relationships: Research and Strategies

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Abstract: Significant attention has been paid in the literature to sibling relationships and the effects of birth order, family size, and gender on such relationships. Although these are important areas to study, there is relatively little research on the effects of autism spectrum disorders (ASD) on sibling relationships. The existent research identifies both positive and negative factors in such sibling relationships. This paper analyzes the studies that are available on ASD and sibling relationships, discusses findings, identifies implications, and makes recommendations for improving sibling relationships when one sibling has ASD.

Within the family unit siblings share a unique relationship with one another (Knott, Lewis, & Williams, 1995), typically lasting the longest among all human relationships (Orsmond & Seltzer, 2007). Sibling relationships in the general population develop along a continuum throughout childhood, adolescence and adulthood (Dunn, Slomkowski, & Beardsall, 1994) and typical sibling relationships provide siblings with experiences that “foster the development of emotional understanding, self-regulation, and a sense of belonging and comfort” (Orsmond & Seltzer, p. 313).

A number of specific aspects of sibling relationships have been highlighted in the research. For example, Smith and Hart (2002) stated that sibling relationships play a significant role in the development of children’s understandings of others’ emotions and thoughts. Kaminsky and Dewey (2001) reported that positive sibling relationships can be an important source of social development and self-worth and are associated with lower levels of conduct disorders and loneliness in children. Further Foden (2007) stated interplay between siblings profoundly affects individuals’ personalities and social and intellectual development. Howe, Petrkas, and Rinaldi (1998) similarly found that siblings who engage in frequent pretend play demonstrate a greater understanding of others’ emotions, are more likely to construct shared meanings in play, and are more likely to develop conflict management strategies. In addition, El-Ghoroury and Romanczky (1999) reported that siblings are important social agents for children with autism spectrum disorders (ASD), who often have severe deficits in social competence. As Reagon (2006) further noted, siblings are the most frequently available play partners.

Thus, the question of how do autism spectrum disorders (ASD) affect sibling relationships is important to answer because positive sibling relationships can foster a better quality of life both in the present and in the future, such as once parents may be unable to care for their child with ASD. This paper addresses factors that affect sibling relationships, analyzes the impact of having a sibling with ASD as compared to one with other disabilities, discusses the findings and potential makes recommendations for improving sibling relationships when one sibling has ASD.

Research on Sibling Relationships

Factors

In addition to the presence of a sibling with a disability, there are many factors that have been identified that affect sibling relationships. Kim, McHale, and Wayne (2006) reported on gender effects on sibling relationships; stating that girls tend to report more
affection in their sibling relationships than boys while Trevino (1979) reported older brothers tend to be the least involved with their siblings. Further, Brody (1998) found positive parent-child relationships were connected to positive affect and pro-social behavior of siblings. Moreover, Fielder and Simpson (2006) reported that culture, traditions, interests, and environmental contexts all have an effect on sibling relationships. The aim of this paper is to analyze the research about the impact of the presence of a disability, and in particular ASD, on sibling relationships.

**ASD: Behavioral Barriers to the Sibling Relationship**

Foden (2007) stated that typically developing siblings of siblings with ASD face the daunting task of forming a healthy sibling bond. Harris (2007) reported the nature of ASD makes it difficult for siblings who are non-disabled to form satisfying relationships with their brother or sister with ASD. That is, the majority of individuals with ASD have cognitive limitations as well as social and behavioral characteristic that may present challenges to sibling relationships (American Psychiatric Association, 2000). Such limitations and characteristics include deficits in understanding the perspectives and emotions of others, lack of reciprocity in conversations, inability to seek out others for comfort, affection, inability to initiate play (Rutter & Schopler, 1987), and troubling behaviors such as aggression (Donenberg & Baker, 1993). Further, Rivers and Stoneman (2003) found in a study of 50 families with children with ASD that siblings who are non-disabled reported on a self-inventory that they were often disturbed by their siblings’ behaviors. Kaminsky and Dewey (2001) hypothesized that the social deficits shown by individuals with ASD causes their sibling relationships to be different from the relationships of other disorders such Down syndrome and no disorder.

**Comparison to Other Groups**

To better understand how ASD affects sibling relationships, it is helpful to investigate studies that have compared relationships of siblings of individuals with ASD to siblings of individuals with other disorders such as Down syndrome (DS), mental retardation (MR), and developmental delay (DD), as well as siblings of typically developing individuals. In the succeeding sections attention is also given to prosocial behavior among siblings, pride or embarrassment of siblings, conflict between siblings, concerns for siblings, and coping skills, (See, Table 1 for more information on studies discussed below)

Positive relationships. There have been studies that have found positive reports of sibling relationships between typically developing siblings and siblings with ASD. Rivers and Stoneman (2003) studied 50 families of siblings of individuals with ASD ages 7–12 and reported mainly positive feeling about their sibling relationships. Mascha and Boucher (2006) concluded in their qualitative study that most siblings of individuals with ASD ages 7-20 recalled positive experiences with their siblings, stating they played outside, watched television and had fun with their siblings. Further, Foden (2007) reported that typically developing siblings of individuals with ASD spoke of pride in teaching their sibling with ASD. In addition, Knott et al. (1995) reported that siblings of individuals with ASD typically “stage-manage” play with their sibling. Knott et al. also found that in some cases siblings with ASD did initiate play with their typically developing sibling(s). Moreover, Fisman et al. (1996) and Kaminsky and Dewey (2001) concluded in their study of 138 subjects that siblings of children with ASD reported less conflict and greater warmth in the sibling relationship than siblings of typically developing individuals. Orsmond and Seltzer (2007) reported siblings of individuals with ASD who were closer when the sibling had lower educational levels, lived closer to their brother or sister with ASD, used coping strategies, and when their sibling had higher levels of independence.

Moreover, McHale et al. (1987) reported that siblings of individuals with ASD reported more positive sibling relationships when they accepted their role as a family member, perceived minimal parental favoritism, developed coping skills, understood their siblings’ disability, and were not worried about the future of their sibling with ASD. Similarly, Orsmond and Seltzer (2007) found that the use of ef-
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<td>60 subjects b/w 5-20 years old</td>
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<td>Reported significantly less positive experiences</td>
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<td>Fisman et al. (1996)</td>
<td>138 subjects</td>
<td>Sibling of siblings w/out a disability</td>
<td>Parent/caregiver &amp; teacher interviewed</td>
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<td>Foden (2007)</td>
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<td>46 subjects</td>
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<td>284 siblings of sibling w/DS</td>
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<td>176 sibling of sibling w/ASD</td>
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<td>Kaminsky &amp; Dewey (2001)</td>
<td>90 siblings of siblings w/ASD</td>
<td>Sibling of siblings w/DS &amp; TD</td>
<td>Sibling Relationship Questioner (SRQ)</td>
<td>Characterized relationships by less intimacy, prosocial behavior, &amp; nurturance, &amp; reported less conflict</td>
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<td>b/w 8 &amp; 18</td>
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<td>Knott et al. (1995)</td>
<td>30 sibling pairs</td>
<td>Sibling of sibling w/DS &amp; LD</td>
<td>Observed at home</td>
<td>Engaged in fewer bouts, imitated less, &amp; staged managed play</td>
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<td>Mascha &amp; Boucher (2006)</td>
<td>14 subjects ages 7-20 from families where there was a child diagnosed ASD</td>
<td>Sibling of siblings w/DS</td>
<td>Sibling Interviewed &amp; observed at home</td>
<td>Reported greater feelings of embarrassment, &amp; coping strategies resulted in more positive feelings, recalled positive feelings about playing outside, &amp; watching tv</td>
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<td>Citations</td>
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<td>McHale, Sloan &amp; Simensson (1987)</td>
<td>90 subjects ages 6-15</td>
<td>Sibling of siblings</td>
<td>Sibling questioners</td>
<td>No differences in relationships b/w groups</td>
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<td>30 siblings of sibling w/ASD</td>
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<td>Osmond &amp; Seltzer (2007)</td>
<td>154 subjects ages 21–56</td>
<td>Sibling of siblings</td>
<td>Sibling questioner</td>
<td>Reported less positive affect, relationship w/parents impacted, development of coping strategies resulted in more positive feelings, as did lower level of education &amp; higher levels of independence of their sibling</td>
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<td>77 sibling of siblings w/DS</td>
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<td>77 sibling of sibling w/ASD</td>
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<td>Rivers &amp; Stoneman (2003)</td>
<td>50 families where there was a child diagnosed ASD</td>
<td>No comparison group: normally developing siblings &amp; parents views</td>
<td>Sibling Inventory Behavior (SIB) &amp; Sibling Relationship Questioner (SRQ)</td>
<td>Reported more positive relationships than parents did</td>
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<td>Roeyers &amp; Mycke (1995)</td>
<td>60 subjects ages 8–14</td>
<td>Sibling of siblings</td>
<td>Siblings interviewed</td>
<td>No differences in relationships b/w groups</td>
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<td>Ross &amp; Cuskelley (2006)</td>
<td>25 subjects ages 8-15 of siblings w/ ASD or no disability</td>
<td>Siblings w/no disability</td>
<td>Siblings interviewed</td>
<td>Reported more aggressive behaviors in the relationship</td>
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ffective coping strategies results in more positive sibling relationships between typically developing siblings and siblings with ASD.

Thus, positive relationships (Rivers & Stoneman, 2003; Mascha & Boucher, 2006; Foden, 2007; Knott et al., 1995) and less conflict (Fisman et al., 1996; Kaminsky & Dewey, 2001) have been reported by siblings of a brother or sister with ASD. Further, effective coping strategies (McHale et al., 1986; Orsmond & Seltzer, 2007), minimal perceived parental favoritism, understanding of sibling’s disability, and little concern about futures of sibling with ASD were all found to contribute to positive sibling relationships (McHale et al.).

Negative relationships. Bagenholm and Gillberg (1991) conducted a study of 60 siblings of children with ASD, DD, and children who are non-disabled and their parents and found siblings and parents of children with ASD reported less favorable attitudes towards their brother or sister with ASD and significantly less positive experiences of their sibling’s role in the family. Further, siblings and parents also reported problems with the destructive behavior of their sibling with ASD (Bagenholm & Gillberg). Similarly, Ross and Cuskelly (2006) reported that siblings of children with ASD ages 8–15 reported more aggression in their sibling interactions.

Further, Kaminsky and Dewey (2001) also reported differences between 90 siblings of individuals with ASD and other disabilities and typically developing individuals ages 8–18. That is, they found siblings of a brother or sister with ASD reported on Sibling Relationship Questioner (SRQ) less intimacy, prosocial behavior, initiated play and nurturance with their sibling than siblings of individuals with DS and of typically developing individuals. Knott et al. (1995) compared 30 sibling pairs of individuals with ASD and siblings of individuals with DS and found that siblings of individuals with ASD spent less time with their sibling, reported having less close relationships and contact, and were more concerned about their siblings’ future. Hodapp and Urbano (2007) conducted a study of 284 subjects of siblings with DS and 174 subjects of siblings with ASD and found siblings of individuals with DS reported closer, warmer sibling relationships than siblings of individuals with ASD. Further, in a study of 154 subjects, Osmond and Seltzer (2007) concluded that siblings of individuals with ASD reported less contact and positive affect with their siblings than siblings of individuals with DS. They also found that siblings of individuals with ASD were more likely to report that their relationships with their parents had been impacted more than those with siblings with DS. Mascha and Boucher (2006) found in their study of 14 subjects ages 7–20 that siblings of individuals with ASD reported greater feelings of embarrassment than siblings of individuals with DD or no disability.

To conclude, siblings of a brother or sister with ASD have reported negative sibling relationships such as less contact, less intimacy, less prosocial behavior and less initiated play (Bagenholm & Gillberg, 1991; Hodapp & Urbano, 2007; Knott, et al., 1995; Orsmond & Seltzer, 2007), worry about the future of their sibling with ASD (Knott et al.) concern about destructive behavior of sibling with ASD (Bagenholm & Gillberg, 1991; Ross & Cuskelly, 2006; Rivers & Stoneman, 2003), and embarrassment (Mascha & Boucher, 2006).

No differences. In contrast to the above studies reported on which showed evidence of less positive relationships, Roeyers and Mycke (1995), in their study of 60 subjects ages 8–14, reported no differences between sibling relationships of children with ASD when compared to siblings of children with DS and no disability. Similarly, in a study of 90 subjects ages 6–15, McHale et al. (1987) found siblings of children with ASD, of children with MR, and of typically developing children reported no differences in sibling relationships.

Strategies for Improving Sibling Relationships

The research findings summarized above may indicate in part a negative impact of ASD on sibling relationships. While there is nothing that can be done about the age, ordinal position, or degrees of ASD, there are strategies that can be implemented to facilitate more positive relationships between typically developing siblings and their brother or sister with ASD. Strategies addressing four areas of concern are discussed below.
Teach play skills. Siblings are the most frequently available play partners (Reagon, 2006). One strategy for increasing positive interactions, prosocial behaviors, and play skills between siblings is to teach siblings a game that they can play together. Harris and Glasberg (1994) suggested starting with a simple skill such as rolling a ball to each other or playing catch and gradually increasing the complexity of the skill as the siblings become more skillful and older, such as going for a jog or shooting baskets together. Further, older typically developing siblings might enjoy learning specific teaching skills so they can be the “teacher” of play (Howlin, 1988) and research has shown that siblings of a brother or sister with ASD can effectively implement behavior interventions (Celiberti & Harris, 1993; Schreibman, O’Neill & Koegel, 1993).

Develop coping skills. As stated earlier, McHale et al. (1987) and Orsmond and Seltzer (2007) reported that siblings of a brother or sister with ASD who had developed effective coping strategies reported more positive relationships. Thus, typically developing siblings need effective coping skills in order to effectively deal with the challenges that come with having a sibling with a disability and to develop a more positive relationship with their sibling with ASD.

Coping strategies can be developed by first encouraging typically developing siblings to share how they are feeling and any concerns they have for their sibling with ASD. That is, by encouraging siblings to openly discuss their feeling unnecessary distress can be avoided and siblings can be reassured their feelings are natural.

Second, Glasberg (2000) stated these siblings often lack information or are misinformed about their brother’s or sister’s disability and that approximately one of every five siblings claim they never heard the sibling’s diagnostic term (autism), thus providing them with accurate age appropriate information about ASD can enable them to cope both intrapersonally and interpersonally by dealing more effectively with their own curiosity and peers’ curiosity (Howlin, 1988; & McHale et al., 1986).

Glasperg (2000) suggested when considering how to explain the disability to siblings it is important to first assess the sibling’s cognitive level and to then re-present information throughout the sibling’s development. Further, Harris and Glasberg (1994) stated that very young siblings will not benefit from a detailed discussion of ASD, but they need to be reassured about their concerns. Smith, Polloway, Patton, and Dowdy (2008) stated that as siblings get older they should be provided with information concerning the disability, which can be found in books, magazines, and journal articles. At the same time, however as noted by Fiedler, Simpson and Clark (2005), adults should help siblings with comprehension for most information is often presented in a manner meant for adults. Further, Smith et al. stated that siblings should be included in the education of their brother or sister with a disability because siblings who are not included in the education of their brother or sister with a disability may often feel isolated or guilt about causing the disability (Meyer, 2001).

Third, Rivers and Stoneman (2003) hypothesized that accessing social support could shield the harmful effects of stressors on the sibling relationship. Therefore, encouraging typically developing siblings to join support groups can allow them to meet others who are going through similar experiences, share their own experiences and realize they are not alone.

Private special time. Meyer (2001) reported that siblings of a brother or sister with a disability reported feelings or resentment when their sibling became the focus of the family’s attention and when he or she was spoiled, overprotected, and allowed to engage in behaviors that were unacceptable if done by another family member. Thus, in order to reduce resentment, perceived parental favoritism, depression, and increase sensitivity and intimacy of typically developing siblings towards their brother or sister with ASD, parents should purposefully set aside private special time to spend with their typically developing child when the child can be the center of attention and feel like a valued member of the family (Harris & Glasberg, 1994). Finding this time may not always be easy, but parents can, for example, split the time between each other, spend time with the child while doing errands, enlist in support from other family members such as grandparents, and use re-
spite care for the individual with ASD (Howlin, 1988).

Avoid unnecessary emotional and physical pressure. Smith et al. (2008) stated that the siblings of a brother or sister with a disability often become second parents in the areas of care and discipline. As mentioned earlier Knott et al. (1995) reported that concerns about the future of the sibling with ASD can lead to negative sibling relationships. Thus, parents should be conscious of not putting too much responsibility on typically developing siblings for support for this puts unneeded stress upon them. More specifically, parents should plan for the possibly of future residential placements of sibling with ASD long before they become too old and typically developing siblings should be involved in the process, but not feel obligated for future care (Howlin, 1988).

**Future Research Areas**

The inconsistencies that are reported in the research regarding the effects of ASD on siblings relationships (e.g., positive vs. negative relationships) seem inevitable because of intervening variables such as the family environment (e.g., economic, educational status, number, age, and gender of children in the family, presence or absence of stress in the paternal relationship, development of coping strategies, availability of social support) and the severity of the disorder of the child with ASD. However, the research literature does seem to show more negative impacts than positive impacts of having a sibling with ASD when compared to having a sibling with DS, DD, MR, or no disability (Bagenholm & Gillberg, 1991; Hodapp & Urbano, 2007; Knott et al., 1995; Ormond & Seltzer, 2006; Ross & Cuskelly, 2006; Mascha & Boucher, 2006; Rivers & Stoneman, 2003).

Further, it appears that the majority of the studies on siblings of individuals with ASD group together siblings spanning from the childhood to adolescence years, which may obscure the differences between these life stages. In addition, the measurements most commonly used (e.g., self-reports) in most of the studies were dependent on the skills and development of the siblings and parents and thus may not be reliable.

Given the status of the research findings in this area, it seems reasonable to conclude it is not enough to just study the effects of ASD on sibling relationships. Rather, future studies need to take a life course approach and consider the context of life stages and also to analyze in depth the effects of factors such as those discussed below.

A first consideration is the gender of the siblings with and without ASD. A first consideration is the gender of the siblings with and without ASD, Stoneman, Davis, Crapps, and Malone (1991) reported that older sisters with brother or sister with a disability had more care giving responsibilities than other siblings. Thus, it seems reasonable to ask is the sibling relationship in which one sibling has a ASD more likely to be poor if the typically developing sibling is an older sister than if an older brother. Further, it may be interesting to look into how the relationship is affected if the siblings are of the same or opposite sex.

A second area for focus is age of the siblings with and without ASD. That is, future research should ask how the relationship is impacted if the typically developing sibling is older or younger than their sibling with ASD. Brody, Stoneman, Davis, and Crapps (1991) reported that older siblings with mental retardation can become closer with their younger typically developing sibling than if they did not have the disability, but little research is available on if this finding would also be true of siblings with ASD.

Third, while it is well known that having a child with ASD can put strain on the marital relationship, the question remains as whether this strain carries over to sibling relationships. That is, do siblings sense stress among parental relationships and if so are sibling relationship affected by negative or positive interaction among parents.

Fourth, Trevino (1979) reported that the larger the family the more the responsibilities for the child with a disability are dispersed among the family members. Thus, future research should address the affects of a larger family on relationships among typically developing siblings and their brother of sister with ASD.

A fifth concern is as mentioned earlier coping strategies have been found to have a positive effect on sibling relationships (McHale et al., 1986; Ormond & Seltzer, 2007), but strate-
gies that are the most and least effective for facilitating positive relationships among typically developing siblings and their brother or sister with ASD have not been widely documented; thus future research should address this issue.

Another area of focus should be the socio-economic status of the family. Seligman (1983) reported that families with financial security may experience greater difficulty meeting the needs of their child with a disability because fewer resources are available to pay for services. Further research is needed to address whether relationships are more positive in affluent families.

Finally, other factors that may be important are the effects of the severity of the disability, the family dynamic, and the cognitive abilities and educational levels of family involvement. Moreover, most of the studies reported compared siblings with ASD to siblings with DS and used one type of assessment such as self-reports and this alone is not sufficient enough to draw any clear conclusions about sibling relationships. Thus comparisons to other populations and other assessment method needs to be used along with self-reports (e.g., observations).

Discussion

The Centers for Disease Control and Prevention (CDC) (2007) released the latest prevalence figures for ASD of 1 in 150, which is up from the 1 in 166 figure reported by the CDC in 2004. Consequently, it appears that having a brother or sister with ASD is becoming more common. For children with ASD, a primary concern is the development of social competence and thus it seems more important than ever that sibling relationships be positive given that siblings are the most frequently available play partners (Reagon, 2006). As detailed earlier, positive support, effective coping strategies, open discussion, planning and sensitivity can facilitate more positive relationships between typically developing siblings and siblings with ASD.

References


Howe N., Petrakos, H., & Rinaldi, M. (1998). All the sheep are dead. He murdered them: Sibling pre-


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