An Investigation of "Circle of Friends" Peer-Mediated Intervention for Students with Autism

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The dramatic rise in children diagnosed with autism spectrum disorder (ASD) is accompanied by a substantial increase in public school inclusion. A growing body of research supports the need for teachers proficient in evidence-based practices to support such students. One strategy involves using peer support networks like Circle of Friends (CoF) for ASD adolescents. A collective case study was used to investigate experiences of stakeholders relative to a CoF community. Four themes emerged from a cross-case analysis: the influence a CoF partnership initiative has on inclusion, social skills improvement, empowerment, and sense of wellbeing. For the purposes of this article, findings relative to inclusion are discussed. CoF fostered an attitude of peer acceptance for classmates with ASD and helped alleviate feelings of fear peers experienced toward ASD classmates. CoF peers developed empathy and understanding for the CoF target student, and those qualities extended to students outside the circles. CoF seemed to have fostered true social inclusion, altering traditional divisions between special education and typical education populations. Peer acceptance generalized outside the school setting, even in the absence of CoF adult facilitators, and fostered long-term, genuine friendships. Findings from the larger study led to the development of an interactive website to foster a virtual learning community to enhance this ongoing partnership. The website might promote a deeper understanding of peer support networks for improved social skills, increased school involvement, decreased isolation, and decreased bullying in youth with ASD, as well as a successful community agency–public school partnership model.

Keywords: *autism, inclusion, peer-mediated intervention, Circle of Friends, social skills, community of practice*

Introduction

Peer-mediated intervention (PMI) is a treatment approach in which typically developing peers are trained to implement behavioral interventions and facilitate social skills development in special needs populations (Newton, Taylor, & Wilson, 1996). It has been identified as an established treatment with favorable outcomes and an essential component of any comprehensive educational program for children with Autism Spectrum Disorder (ASD) (Chan et al., 2009; Humphrey & Symes, 2010; National Autism Center, 2009). However, few teachers include PMI in programming for this population (Carter & Pesko, 2008; Hughes et al., 2011). Currently, a need exists for additional research on PMI in adolescent ASD populations (Bellini, Peters, Benner, & Hopf, 2007; DeRosier, Swick, Davis, McMillan, & Matthews, 2011; Locke, Ishijima, Kasari, & London, 2010). The current study explored the experiences and perceptions of participants in an ongoing partnership between a community non-profit agency partnering with three public high schools to support implementation of the PMI model called Circle of Friends (CoF) for adolescents with ASD.

Background and Research Problem

ASD is a pervasive developmental disorder characterized by deficits in social interactions and communication skills and is one of the fastest growing health conditions in children in the United States today with 1 in 88 children receiving the diagnosis (Centers for Disease Control, 2012). The increase in autism diagnoses has been accompanied by a steady rise in the number of students with ASD receiving their education in general education inclusion settings (U.S. Department of Education, 2006). Circle of Friends (CoF) is an educational approach that facilitates the inclusion of children with disabilities in the school community by engaging the peer group in proactively supporting the individual with special needs. By providing access to peers in an authentic social context, social skills acquisition is facilitated through mentoring by more socially competent classmates.

The community partnering agency in this study provided training and support for the (CoF) PMI model implemented in three public high schools. The larger research study was an examination of the experiences of facilitators, parents, and non-profit community agency directors implementing CoF groups. It also explored how the contributions of the community partnering agency providing professional development, funding, and ongoing support influenced CoF implementation.

Conceptual Framework

A constructivism framework is built on the belief that learners construct knowledge based on a combination of previous experiences and social

interactions in authentic surroundings (Vygotsky, 1978). One learning theory rooted in a social constructivist framework is Vygotsky's social development theory. Vygotsky (1978) noted that social interaction precludes development; consciousness and cognition are the end products of socialization and social behavior. Cognitive development is dependent on the *zone of proximal development* (ZPD), the distance between a student's ability to perform a task with the assistance of adults or peers and the ability to perform it independently. Social interaction is required for learning to take place.

Literature Review

The literature review provides an overview of three topics. These topics include social skills and peer relationships in adolescent ASD populations, school environments and adolescents with ASD, and Peer-Mediated Intervention and Circle of Friends.

Social Skills and Peer Relationships in Adolescent ASD Populations

ASD is considered a pervasive developmental disorder characterized by deficits in three major areas: "reciprocal social interaction, communication, and restricted, repetitive interests and behaviors" (American Psychiatric Association, 2000, p. 70). The resulting lack of social competency can hurt development by

> 1) increasing behavior problems that result from not having the appropriate skills for social interaction, 2) increasing the likelihood of maladaptive behavior later in life, and 3) decreasing the positive developmental support and learning opportunities found in successful peer relationships. (Frea, 1995, p. 53)

Specific social disabilities in adolescents with ASD are well documented: difficulty following shifts in conversation, reading body language and nonverbal communication; understanding non-literal language; obsessing on a single area of special interest when conversing with others; and difficulty understanding both emotions and romantic relationship cues (Gillberg, 2001; Stokes, Newton, & Kaur, 2007). Adolescents with ASD have difficulty showing empathy as well as understanding the perspectives of others (Demurie, De Corel, & Roeyers, 2011) and experience a significantly greater incidence of obsessive compulsive disorder, anxiety, fear, and phobias (Bradley, Ames, & Bolton, 2011; Simonoff, Pickles, & Charman, 2008). In addition to irritability, temper tantrums, and mood swings, individuals with ASD may exhibit aggressive behavior, which has been reported in up to 45% of this population (Farmer & Aman, 2011; Gabriels et al., 2005; Johnson & Myers, 2007; Matson, Mahan, Hess, Fodstad, & Neal, 2010; Poppes, Putten, & Vlaskamp, 2010). Further, compared to typically developing peers, adolescents with ASD experience substantial deficits in memory storage and retrieval (Southwick et al., 2011).

School Environments and Adolescents with ASD

Increasingly, adolescents with ASD are being educated in inclusive classroom environments, but effective inclusion for children with ASD is complicated and often misunderstood (Humphrey & Lewis, 2008). Currently, inclusion refers not only to the physical placement of students, but also to the quality of their interactions (Farrell, 2001). A growing body of research indicates that the ASD population rarely develops typical peer relationships in the school setting. Orsmond, Krauss, and Seltzer (2004) investigated the peer relationships and social lives of 235 adolescents with ASD, and discovered the prevalence of having friendships, peer relationships, and participation in social activities was low, comparable to previous research. Adolescents with ASD report having less access to peers and friends, likely because of the nature of their social deficits (Stokes, Newton, & Kaur, 2007). They initiate fewer interactions with classmates than both peers without ASD and peers with developmental disabilities (Hendricks & Wehmen, 2009; Riechow & Volkmar, 2010).

In addition, adolescents with ASD are at increased risk of becoming victims of bullying (Little, 2002; Wainscot et al., 2008). This is especially true in adolescence when understanding social cues becomes even more complicated (Little, 2002; Wainscot, Naylor, & Sutcliffe, 2008). Adolescents with ASD are three times more likely to be bullied than their typically developing peers (Humphrey & Symes, 2010; Interactive Autism Network, 2012). Even more disturbing, the victimization rate may be much higher. Because they sometimes have problems distinguishing friendly overtures from victimization, bullying is often underreported among this population (Moore, 2007; National Autistic Society, 2006). Students with ASD are less likely to report bullying because poor social understanding prevents them from realizing they are actually being treated poorly by peers at school (National Autistic Society, 2006). Without positive peer interactions, hostile school environments exacerbate the difficulties teenagers with ASD have in developing healthy social relationships and normalized social function.

Teachers and other school staff also have an effect on the social interactions between students with ASD and their non-autistic peers. Adults often fail to acknowledge that teenagers with ASD have impairments in social competency and may assume that because a student with high functioning ASD is academically capable, he or she must also be capable of interacting appropriately with peers (Moore, 2007). Teachers often blame the students with ASD, insisting they choose to behave in ways which alienate their classmates (Humphrey & Symes, 2010; Moore, 2007).

Peer-Mediated Intervention and Circle of Friends

Peer-mediated intervention (PMI) is a treatment approach where typically developing peers are trained to interact with students on the autism spectrum. PMI may involve peers in the instructional process, behavioral interventions, and/or social interaction facilitation (Bass & Mulick, 2007; Chan et al., 2009; DiSalvo & Oswald, 2002; US Department of Education, 2006). Since PMI provides greater access to peers, positive, proactive feedback in a supportive structure may help improve social competency skills. Kamps et al. (2002) found that repeated interactions in a natural school context between trained peers and students with ASD resulted in greater generalization of social skills than in control groups consisting of untrained peers and strangers. As peers are readily available in the school setting and can learn peer support strategies fairly easily, PMI is worthy of consideration by teachers (Cushing, Clark, Carter, & Kennedy, 2005).

CoF is a specific form of PMI based on a social constructivist approach (Frederickson, 2003). CoF is defined as an educational approach which facilitates the inclusion of children with disabilities in the school community by engaging the peer group in proactively supporting the individual with special needs (Kalyva & Avramidis, 2005). The goal of the CoF group is to provide an environment in which children with ASD can increase social interactions in order to facilitate positive social skills development. It is a "systemic approach that recognizes the power of the peer group-and thereby of pupil culture-to be a positive as well as a constraining or exacerbating influence on individual behavior" (Newton, et al., 1996, p. 42). Taylor (1997) outlined the process of forming CoF in four stages which include the following:

1) Establish prerequisites. This involves choosing a supportive school, providing teachers training along with a commitment of resources to meet weekly with the CoF, and finally, communicating with parents.

2) Meet with chosen typically developing peers to discuss the focus child's strengths and challenges, discuss the requirements of the peer mentor role, and end by inviting peers to voluntarily participate in the CoF.

3) Establish the circle with a group of six to eight typically developing peers who agree to a collaborative problem solving approach.

4) The typically developing peers then meet on a regular basis with the adult facilitator to review progress, identify difficulties, and plan ways to solve problems.

Methodology

The purpose of this study was to understand stakeholders' interpretations of the CoF phenomenon. A multi-site collective case study design (Merriam, 2009; Stake, 1995; Yin, 2003) was chosen to understand the unique perspectives of three different cases: Group facilitators, parents of children with ASD, and the

community partnering agency program directors. The question guiding the larger study was: What are the experiences of group facilitators, parents, and partnering outside agency leaders in three high schools implementing CoF? The adult facilitators were all school employees who worked in some capacity with youth with special needs, either special education teachers and directors, speech pathologists, or guidance counselors. The parents included in this study had a child with ASD who participated in a CoF in one of the three high schools. The director and program manager from the partnering agency were chosen to participate because their involvement in the project provided insight into the dynamics of a school-community agency partnership.

Interviews were conducted by phone using broad, open-ended questions, intended to allow the interviewees to speak freely and provide depth of insight. Five open-ended interview questions were asked of parents, seven for CoF facilitators, and 10 for the partnering agency director and program manager (See Appendix). These questions emerged from the literature review which revealed that while PMI is emerging as an effective strategy to teach children with ASD, teachers rarely implement the practice. The questions were chosen to provide insight into the perspectives of the facilitators who have implemented it, as well as parents who have experienced the phenomenon. Responses to interview questions were recorded, transcribed verbatim, and analyzed by hand coding (Miles & Hubermann, 1994). A combination of predetermined and emerging codes was used. Data were analyzed for multiple perspectives on the major themes which emerged. Several measures were used to enhance trustworthiness. Data were continually compared to specifically defined codes, and triangulation, member checking, and reflexivity were also used.

Findings

Four main themes emerged from a cross-case analysis of the data of the larger study. Those themes that emerged were the influence a CoF partnership initiative has on inclusion, social skills improvement, empowerment, and sense of wellbeing. Findings are congruent with Vygotsky's (1978) claim that social interaction precludes development; consciousness and cognition are the end products of socialization and social behavior. For the purposes of this article, the findings relative to inclusion are discussed.

Peer Acceptance and Less Fear toward Classmates with ASD

Based on interviewee feedback, CoF fostered an attitude of peer acceptance for classmates with ASD. Every research participant reported an increase in peers' understanding of classmates with autism and other disabilities. They believed this acceptance was an outcome of specific CoF lessons designed

to teach them about autism and promote positive interactions. As noted by one facilitator:

> I think the peers learn a lot. I think a lot of the peers are unaware of autism, Asperger's, kids who, you know, kids on the spectrum. By looking at them you can't tell that they have a disability. So they kind of get labeled the weird kid and I think having an understanding of why they behave the way they do is extremely beneficial to the peers.

Another facilitator stated, "I think it's been great for them. I think it opens their eyes and makes them more aware of other kids with disabilities. Really what we're doing is teaching them a framework for being a really nice person."

Adults describe social interactions and peer comfort levels with odd behaviors which didn't exist before CoF groups were formed. One facilitator shared,

> She (the target student) could say those strange things that she says and they understood she was being funny, that she's a little different, that she's silly. When there were conversations going on in the group she was part of it and it wasn't just her talking. She was definitely part of the group. So they (the peers) were really focusing on the funny things she says and encouraging her to talk about her animals and it really just brought her out. I mean she looked forward to the group all week long.

This facilitator went on to describe the target student's CoF peers as patient and interested, stating that they were, "really good with her" and that they, "really seem to enjoy her."

CoF also seemed to help alleviate feelings of fear peers experienced towards classmates with ASD. One facilitator described an isolated target student who had a history of lashing out at peers, but after CoF experienced a newfound accepting environment. This facilitator stated:

> I think there were probably a couple of kids who were kind of scared, scared of her in the beginning, but once they came down for lunch a couple of times and they saw she's completely different when they come to lunch, I don't think I had anybody who didn't want to interact with her.

According to this facilitator, the target student moved from thinking students would never like her to experiencing acceptance and friendship. The facilitator observed that she became more comfortable taking social risks.

Development of Empathy, Understanding, and Fostering True Social Inclusion

Several facilitators shared that CoF peers not only developed empathy and understanding for the Circle target student, but that those qualities extended to students outside the Circles. In one case, a facilitator described a situation where peers demonstrated sensitivity to the needs of a student who had recently moved

to the district. This new student told peers who happened to be part of a CoF group that she had been bullied at her former school. Upon learning this, a CoF peer approached her adult facilitator and asked if this new girl could be included in the Circle to prevent a similar situation from recurring. As another facilitator put it:

> I think it helps peers look at classmates differently. Taking a second before just deciding they're going to judge someone from a five second interaction with them. Taking a step back and really working through some of the issues the other person might be dealing with. I think that a lot of our peers leave, especially when they graduate with a much better understanding of autism in general and then just have more respect; I want to say more respect for all people, not just people with ASD.

CoF seemed to have fostered true social inclusion, altering traditional divisions between special education and typical education populations. One parent shared, "The first year he always sat with all the special needs kids at lunch. But then (after CoF), the other peers would say, 'Come sit with our group'." Another parent explained the relationship between CoF and social inclusion in the following statement:

> I don't think a lot of these teens would know my son or would know them (other target students) as well or engage them having not experienced Circle of Friends. It's one thing having a child in the classroom, but it's another thing to know what their hobbies are and to know kind of what they like. That's a big benefit.

One facilitator confirmed this parent's perceptions stating, "They (parents) have that support system they didn't necessarily have before. They've seen their kids talking to other kids without disabilities. They've seen them interact with those kids."

Interestingly, it was reported across case groups the belief that this peer acceptance generalized outside the school setting, even in the absence of CoF adult facilitators. One parent interviewed, who happens to be the leader of a social support group for teens with ASD from different schools, shared the following account. The support group was at a bowling alley for a social outing not associated in any way with CoF. With the exception of this support group leader's son, none of the youth with ASD had CoF groups in their schools. There happened to be a fundraiser for a local baseball team at the bowling alley that particular night, so the facility was packed with teenagers not associated with the ASD support group. The support group leader mother relayed:

> There was one young adult from our group that kept going over to a group of typical teens from this baseball group and engaging them and kind of being goofy. I was kind of watching the situation and making sure he was being appropriate. And those teens, you could tell they were from our

school (involved in the CoF project) in the way that they handled it. They were so used to having special needs kids in their group, in their environment, that they didn't miss a beat. It was so cool. And so I went up to them a couple of times and said, 'Is everything o.k.?', and they said, 'No, no, he's fine'. And then probably halfway through the night one of the young men got up from the team and came over to talk to me and said, 'Is that your son, _____?'. I said, 'Yeah', and then he said, 'Well, I'm one of the peers from his Circle of Friends'. Here we had this whole group of kids from ____ (participating CoF school) and it was so obvious that they're used to engaging them and they all responded so positively which wouldn't have been the case (before CoF). As a parent that's the biggest thing I see, that when you're out in the community, that peers are used to greeting kids, and they're used to having them around, and making them part of the community. That's probably the biggest thing that my husband and I see.

This parent went on to add that the parents of the teens with ASD who did not have CoF at their schools were surprised when they observed these natural peer social interactions. These parents expressed frustration that their children's schools did not have CoF programs.

While CoF may be viewed as contrived, artificial friendship at least initially, it appears from this study that some long term, genuine friendships develop. One parent shared that her daughter received a party invitation from a former CoF peer who moved to another district one year later, no longer part of her daughter's CoF group. Social events outside CoF to which target students were invited included birthday and holiday parties, movies, and shopping trips. Parents and facilitators also reported that target students formed friendships in gaming and anime clubs outside CoF.

Discussion of Findings

The findings that emerged from the analysis of the data of the larger study: inclusion, social skills improvement, empowerment, and sense of wellbeing are congruent with Vygotsky's (1978) claim that social interaction precludes development and that consciousness and cognition are the end products of socialization and social behavior.

Based on participant responses, CoF fostered an attitude of peer acceptance for classmates with ASD. Every research participant reported an increase in peers' understanding of classmates with autism and other disabilities. This is consistent with DiSalvo and Oswald's (2002) contention that typical students must first be educated to change their views and beliefs about those with autism in order to gain the attention of peers with autism. In their study about typical peers and peers with Asperger syndrome, Carter, et.al (2004) noted that

social interaction allowed the typical peers to enhance their understanding of their peers with Asperger syndrome.

Participants in the current study described social interactions and peer comfort levels with odd behaviors which did not exist before CoF groups were formed and commented that CoF also seemed to help alleviate feelings of fear peers experienced toward classmates with ASD. This finding is in agreement with Frederickson and Turner's (2003) study of CoF, where they noted that the program is "a useful means of changing other children's perceptions and judgments about a focus child" (p. 240). Frederickson and Turner also pointed out that those around a person with autism must change first in order for change to occur in the one with autism. In addition, Gus (2000) discussed CoF and maintained the process enhanced typical peers' understanding of peers with autism.

Several facilitators shared that CoF peers not only developed empathy and understanding for the Circle target student, but that those qualities extended to students outside the Circles. In one case, a facilitator described a situation where peers demonstrated sensitivity to the needs of a student who had recently moved to the district. Findings in the current study demonstrated that CoF seemed to have fostered true social inclusion, altering traditional divisions between special education and typical education populations. Kalyva and Avramidis (2005) investigated a CoF intervention. They reported that "changes in the interaction patterns indicate that the circle of friends is a powerful intervention that, if carefully applied, can improve the social skills of children with autism and their ability to communicate, and ultimately facilitate their inclusion in mainstream settings (p. 253).

In the current study, across case groups, findings indicated that the peer acceptance generalized outside the school setting, even in the absence of CoF adult facilitators. Kalyva and Avramidis (2005) pointed out a similar finding noting that those in the CoF intervention group had significantly higher successful response and initiation rates at after the intervention and follow-up than those in the control group. Similarly, Jung, Sainato, and Davis argued that peers often can provide opportunities for genuine interaction in ways better than adults are able to; peers also may become examples for language use and social behavior (Kalyva & Avramidis).

Implications for Social Change

All participants believed CoF benefitted students with ASD, their peers, as well as themselves. The themes that emerged from the study indicated that CoF fosters true social inclusion, improved social skills, feelings of empowerment, and a greater sense of wellbeing. A blueprint for successful CoF implementation also became apparent. Results of the larger study were used to guide the development

of a web site for use by stakeholders in this project. The partnering agency has a stated goal to support any school in the state of interested in implementing CoF groups for students on the autism spectrum. With this goal in mind, the site will alleviate challenges communicated by study participants, provide support, and simplify future project implementation with an increased number of schools.

Findings have the potential to improve the lives of youth with autism and the adults for whom this virtual community is created. Without proper intervention, students with ASD may be physically integrated into the regular education setting, but denied social inclusion. Without proper education, their peers misunderstand, socially ignore, or even bully them. Without training and support, well-meaning teachers often fail to meet the social needs of this population as parents watch helplessly. By creating a virtual learning community to support this CoF partnership, teachers will receive the training and ongoing, collaborative professional development needed to properly implement an intervention designed to promote true social inclusion for youth with ASD. This also enables the community agency leaders to serve additional schools since having all documents in a central location will make the CoF program manageable. Parents, as a result of observing their children in new social situations, will be able to set and meet new social goals in partnership with their child's teachers. Enhancing accountability and knowledge of CoF for the partnering agency board of directors will increase the likelihood that this program will continue to receive support in the future.

Findings will have the potential to impact social change beyond the local level. Having a visual model of a replicable partnership could provide a blueprint for other communities seeking creative ways to serve children with ASD. Having research supporting the intervention on the website will provide an evidence-base for parents, teachers, and administrators trying to convince others outside this partnership to consider CoF. This project can serve as a method to increase visibility for this evidence supported intervention, ultimately benefiting children with

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders, text revision* (4th ed.). Washington, DC: Author.

Bass, J., & Mulick, J. (2007). Social play skill enhancement of children with autism using peers and siblings as therapists. *Psychology in the Schools, 44,* 727-735.

Bellini, S., Peters, J., Benner, L., & Hopf, A. (2007). A meta-analysis of school-based social skill interventions for children with autism spectrum disorders. *Remedial and Special Education, 28,* 153-162.

Bradley, E. A., Ames, C. S., & Bolton, P. F. (2011). Psychiatric conditions and behavioral problems in adolescents with intellectual disabilities: Correlates with autism. *Canadian Journal of Psychiatry, 56*(2), 102-109.

Carter, E., & Pesko, M. (2008). Social validity of peer interaction intervention strategies in high school classrooms: Effectiveness, feasibility, and actual use. *Exceptionality, 16,* 156-173.

Carter, C. C., Meckes, L. L., Pritchard, L. L., Swensen, S. S., Wittman, P. P., & Veldt, B. B. (2004). The Friendship Club: An after-school program for children with Asperger Syndrome. *Family and Community Health*, 27143-150.

Centers for Disease Control and Prevention. (2012). CDC estimates 1 in 88 children in the United States has been identified as having autism spectrum disorder. [Press Release]. Retrieved from http://www.cdc.gov/media/index.html

Chan, J., Lang, R., Rispoli, M., O'Reilly, M., Sigafoos, J., & Cole, H. (2009). Use of peer-mediated interventions in the treatment of autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders, 3,* 876-889.

Cushing, L., Clark, M., Carter, E., & Kennedy, C. (2005). Access to the general education curriculum for students with severe disabilities: What it means and how to accomplish it. *Teaching Exceptional Children, 38,* 6-13.

Demurie, E., De Corel, M., & Roeyers, H. (2011). Empathetic accuracy in adolescents with autism spectrum disorders and adolescents with attention-deficit/hyperactivity disorder. *Research in Autism Spectrum Disorders, 5*(1), 126-134.

DiSalvo, C., & Oswald, D. (2002). Peer-mediated interventions to increase the social interactions of children with autism: Consideration of peer expectancies. *Focus on Autism and other Developmental Disabilities, 17*(4), 198-207.

Farmer, C., & Aman, M. (2011). Aggressive behavior in a sample of children with autism spectrum disorders. *Research in Autism Spectrum Disorders, 5*(1), 317-323.

Farrell, P. (2001). Special education in the last twenty years: Have things really got better? *British Journal of Special Education*, *28*, 3-9.

Frea, W. (1995). Social communicative skills in higher-functioning children with autism. In R.L. & L.K. Koegel (Eds.) *Teaching children with autism: Strategies for initiating positive interactions and improving learning opportunities,* 53-56. Baltimore, MD: Brookes.

Frederickson, N. & Turner, J. J. (2003). Utilizing the classroom peer group to address children's social needs: An evaluation of the circle of friends intervention approach. *The Journal of Special Education, 36,* 234-245.

Gabriels, R. L., Cuccaro, M. L., Hill, D. E., Ivers, B. J., & Goldson, E. (2005). Repetitive behaviors in autism: Relationships with associated clinical features. *Research in Developmental Disabilities, 26,*169-181.

Gillberg, C. (2001). Asperger syndrome and high functioning autism: Shared deficits or different disorders? *The Journal of Developmental Learning Disorders, 5,* 81-94.

Gus, L. (2000). Autism: promoting peer understanding. *Educational Psychology In Practice*, *16*(4), 461-468. doi:10.1080/02667360020006345

Hendricks, D. R., & Wehman, P. (2009). Transition from school to adulthood for youth with autism spectrum disorder: Review and recommendations. *Focus on Autism and Other Developmental Disabilities, 24,* 77-88. doi: 10.1177/1088357608329827

Hughes, C., Golas, M. Cosgriff, J., Brigham, N., Edwards, C., & Cashen, K. (2011). Effects of a social skills intervention among high school students with intellectual disabilities and autism and their general education peers. *Research & Practice for Persons with Severe Disabilities, 36*(1-2), 46-61.

Humphrey, N., & Lewis, S. (2008). Make me normal: The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism: An International Journal of Research and Practice, 12*, 39-62.

Humphrey, N., & Symes, W. (2010). Responses to bullying and the use of social support among pupils with autism spectrum disorders (ASD's) in mainstream schools: A qualitative study. *Journal of Research in Special Education Needs, 10*(2), 82-90.

Interactive Autism Network. (2012). *New data show children with autism bullied three times more frequently than their unaffected siblings.* Retrieved from http://www.kennedykrieger.org/overview/news/new-data-show-children-autism-bullied-three-times-more-frequently-their-unaffected-siblings

Johnson, C. P., & Myers, S. M. (2007). Identification and evaluation of children with autism spectrum disorders. *American Academy of Pediatrics Council on Children with disabilities, 120,* 1183-1215.

Jung, S., Saint, D., & Davis, C. (2008). Using high-probability request sequences to increase social interactions in young children with autism. *Journal Of*

Early Intervention, *30*(3), 163-187.

Kamps, D., Royer, J., Dugan, E., Kravits, T., Gonzalez-Lopez, A., Garcia, J., & Garrison Kane, L. (2002). Peer training to facilitate social interaction for elementary students with autism and their peers. *Exceptional Children, 68*(2), 173-187.

Kalyva, E., & Avramidis, E. (2005). Improving communication between children with autism and their peers through the 'Circle of Friends': A small-scale intervention study. *Journal of Applied Research in Intellectual Disabilities, 18,* 253-261.

Little, L. (2002). Middle class mothers' perceptions of peer and sibling victimization among children with Asperger's syndrome and nonverbal learning disorders. *Issues in Comprehensive Pediatric Nursing,* 25, 43-57.

Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality, and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Education Needs, 10*(2), 74-81.

Matson, J., Mahan, S., Hess, J., Fodstad, J., & Neal, D. (2010). Progression of challenging behaviors in children and adolescents with Autism Spectrum Disorders as measured by the Autism Spectrum Disorders-Problem Behaviors for Children (ASD-PBC). *Research in Autism Spectrum Disorders, 4*(3), 400-404.

Merriam, S. (2009). *Qualitative research: A guide to implementation.* San Francisco, CA: Jossey-Bass.

Miles, M. B., & Hubermann, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* (2nd ed.). Thousand Oaks, CA: Sage.

Moore, C. (2007). Speaking as a parent: Thoughts about educational inclusion for autistic children. In R. Cigman (Ed.), *Included or Excluded? The Challenge of Mainstream for some SEN Children,* 34-41. London: Routledge.

National Autistic Society. (2006). *B is for bullied.* London, UK: NAS.

National Autism Center. (2009). Addressing the need for evidence based practice guidelines for autism spectrum disorders. National Standards Report. Randolph: MA: National Autism Center.

Newton, C., Taylor, G., & Wilson, D. (1996). Circles of Friends: An inclusive approach to meeting emotional and behavioural needs. *Educational Psychology in Practice, 11*(4), 42.

Orsmond, G. L., Krauss, M. W., & Seltzer, M. M. (2004). Peer relationships and social recreational activities among adolescents and adults with autism. *Journal of Autism and Developmental Disorders, 34,* 245-256.

Poppes, P., Putten, A., & Vlaskamp, C. (2010). Frequency and severity of challenging behavior in people with intellectual and multiple disabilities.

Research in Developmental Disabilities, 21, 1269-1275.

Riechow, B., & Volkmar, F. R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism and Developmental Disorders, 40,* 149-166.

Simonoff, E., Pickles, A., & Charman, T. (2008). Psychiatric disorders in children with autism spectrum disorders: Prevalence, comorbidity, and associated factors in a population-derived sample. *Journal of the American Academy of Child and Adolescent Psychiatry. 47*, 921-929.

Southwick, J. S., Bigler, E. D., Froehlich, A., DuBray, M. B., Alexander, A. L., Lange, N., & Lainhart, J. E. (2011). Memory functioning in children and adolescents with autism. *Neuropsychology, 25*(6), 702-710. doi:10.1037/a0024935

Southwick, J., Froelich, A., DuBray, M., Lange, N. Bigler, E., Alexander, A., & Lainhart, J. (2011). Memory functioning in children and adolescents with autism. *Neuropsychology, 25*(6), 702-710.

Stake, R. (1995). *The art of case study research.* Thousand Oaks, CA: Sage.

Stokes, M., Newton, N., & Kaur, A. (2007). Stalking, and social and romantic functioning among adolescents and adults with Autism Spectrum Disorder, *Journal of Autism and Developmental Disorders,* 37:1969-1986. doi: 10.1007/s10803-006-0344-2

Taylor, G. (1997). Community building in schools: Developing a 'circle of friends'. *Educational and Child Psychology, 14*(3), 45-50. .

U.S. Department of Education, Office of Special Education Programs. (2006). *Annual Report to Congress on the implementation of the Individuals' with Disabilities Act.* Washington, DC: Author.

Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes.* Cambridge, MA: Harvard University Press.

Wainscott, J., Naylor, P., Sutcliffe, Pl, Tantam, D., & Williams, J. (2008). Relationships with peers and use of the school environment of mainstream secondary school pupils with Asperger syndrome (high functioning autism): A case control study. *The International Journal of Psychology and Psychological Therapy,* 8, 25-38.

Yin, R. K. (2003). Case study research: Designs and methods (3rd ed.). Thousand Oaks, CA: Sage.

Appendix: Interview Questions

Parents
1. Can you tell me to the best of your knowledge how your son/daughter's Circle of Friends group at school works?
2. Can you tell me about any benefits your son/daughter has experienced from participating in Circle of Friends?
3. Can you tell be about any drawbacks your son/daughter has experienced in participating in Circle of Friends?
4. Do you have any recommendations for the way your school implements Circle of Friends groups in the future?
5. Is there anything else you'd like to tell me about your family's participation in the Circle of Friends program at school?

Facilitators
1. How does the Circle of Friends group(s) work in your school? You may discuss the following or anything else that comes to mind:
   - How peer mentors are chosen
   - Meeting schedules
   - Meeting activities
   - Methods peers give feedback
   - Any outside of school activities?
   - Any parental involvement?
2. Can you tell me about any benefits to Circle of Friends as it has been implemented in your school? You may discuss the following or anything else that comes to mind:
   - Benefits to the target student
   - Benefits to the peer mentors
   - Benefits to administration
   - Benefits to you personally
   - Benefits to parents of the target student
3. Can you tell me about any drawbacks /problems with Circle of Friends as it has been implemented in your school? You may discuss the following or anything else that comes to mind:
   - Drawbacks/problems for the target student
   - Drawbacks/problems for the peer mentors
   - Drawbacks/problems for administration
   - Drawbacks/problems for you personally
   - Drawbacks/problems for parents of the target student

4. Describe how support from _____ (partnering agency) has influenced/helped/hindered your role in implementing Circle of Friends.
5. Do you have any recommendations for Circle of Friends implementation in your school for the future?
6. Is there anything else you'd like to tell me about your experiences with Circle of Friends?

Community Agency Director and Program Manager
1. Can you tell me about how the Circle of Friends school partnership came about?
2. What support does your organization provide to K-12 schools in this project?
3. Can you describe positive experiences working with school facilitators on this project?
4. Can you describe challenging experiences working with school facilitators on this project?
5. In your opinion, what factors contribute to successful implementation of CoF?
6. In your opinion, what factors contribute to unsuccessful implementation of CoF?
7. Describe the perceptions of stakeholders in your agency regarding this project.
8. Do you have recommendations for Circle of Friends implementation in the future?
9. What role does your agency plan to fill in the future?
10. Is there anything else you'd like to tell me about the Circle of Friends project?