

Teachers Perceptions of Interventions for Children with Autism in a School Setting

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Abstract

Navigating the topic of autism can be difficult because there is so much recent research covering a vast range of information. The present study focuses on interventions for children with autism in a school setting. The interventions being reviewed are social stories, visual cues, and family support. The definition and evaluation of social stories and visual cues in academic settings will be discussed. The population of parents of children with autism will also be examined. Research suggests appropriate use of social stories and visual cues in academic settings are effective and positive; however the transfer into nonacademic settings is limited, suggesting a need for more resources in nonacademic settings. The implication is resources be made available to parents of children with autism.

Teachers Perceptions of Interventions for Children with Autism in a School Setting

A significant portion of children with Autism are placed in the public school system (Smith, 2008). Due to the significant population of children with Autism; there is a need for examination of this population, and ensuring that their needs are being met. Smith (2011) suggested that public schools are facing no “greater challenge” than the substantial increase of children with autism. In addition, Smith argued the immediate need for school districts budgets to grow in order to meet the increasing needs of children diagnosed with Autism. According to the findings (Smith, 2008; Smith, 2011), one can infer the need for timely research in this area.

According to the Interagency Autism Coordinating Committee (IACC, 2011) “today, Autism is more common in the United States than childhood cancer, juvenile diabetes, and pediatric AIDS combined, and the increasing numbers of children being diagnosed with autism has created a national health emergency” (p. 1). It is estimated that an average of 1 in 110 children living in the United States have Autism (U.S. Centers for Disease Control and Prevention, 2010; U.S. Department of Education, 2011). In addition, findings continue to reveal an increase in the numbers of children diagnosed with Autism, and have especially showed an increasing upward trend over the past decade. The increased number of children diagnosed with Autism has garnered national attention (IACC, 2011), which led to President Obama’s endorsement of Autism awareness month and verbal proclamation of World Autism Awareness Day. Furthermore, IACC was developed in accordance with the Combating Autism Act of 2006, and was specifically established by congress in order to provide a blueprint for Autism research (U.S Department of Health and Human Services, 2011). According to IACC (2011), Autism is on the rise and there is a need to address and examine this population.

Children with Autism face many developmental obstacles including physical, emotional, and social disabilities (Kane, Connell & Pellecchia, 2010). Social understanding and behavior problems are a common experience for individuals with Autism, creating a challenge for teachers to manage their needs (Eman & Farrell, 2009). Lynch, Simpson, and Spencer found (2008) educating students with autism spectrum disorders (ASD) in inclusive classroom settings has increased over the past ten years. Consequently, it has created challenging behavioral issues in the school setting (Agosta, Graetz, Mastropieri, & Scruggs, 2004; Norris & Dattilo, 1999). Numerous studies have been conducted on various interventions that help assist appropriate social interactions and behavior (IACC, 2011).

For the purpose of this literature review, interventions commonly used in a school setting, which focus on social interaction and/or negative or disruptive behaviors were specifically examined. This does not negate the other contributing variables; however, it is for the purpose of exploring the interventions that will have the most impact, specifically in a school setting. The impact of social stories, visual cues and family support are the interventions being examined in this review of literature. The interventions were examined to determine their effects on social and/or negative or disruptive behavior in a school setting.

Review of Literature

The present study will focus on interventions for children with Autism in a school setting. Teachers' perceptions of interventions of social stories and visual cues will be examined. In addition, teachers' perceptions of interest in further training on social stories and visual cues will be discussed.

Autism Spectrum Disorder (ASD) is characterized as a complex developmental disability that ranges in severity among different individuals (ACC, 2011; IACC, 2009; U.S. Centers for Disease Control and Prevention, 2011; U.S. Department of Education, 2011; U.S. Department of Health and Human Services, 2011). ASD is also referred to as Pervasive Developmental Disorder (PDD). Chowdhury, (2009) described the main characteristics of ASD as: qualitative impairment in communication and social interaction as well as restrictive, repetitive and/or stereotyped patterns of behavior, interests and activities. There is no medical test to diagnose ASD (U.S. Department of Health and Human Services, 2011). Therefore, professionals must diagnose based on presenting symptoms. Individuals, to be diagnosed with Autism, must display delayed language with a qualitative impairment in: (1) communication; (2) social interactions; and (3) restrictive, repetitive and stereotyped patterns of behavior, interests and activities (Chowdhury, 2009). Examples of qualitative impairment in social interaction include, an individual maintaining eye contact and lack of interest in developing social relationships. In a school setting, one might observe a child with ASD disengaged from his peers, almost appearing self-absorbed or in his own world (Emam & Farrell, 2010). ASD behaviors affect the quality of the teachers' relationship with ASD students. Some examples of qualitative impairment behavior in communication are: speech delay, misunderstanding social cues, jokes or non-verbal facial expressions. Restrictive, repetitive and stereotyped patterns of behavior, interests and activities appeared to express themselves in fixation of specific topics and rituals. For example, a student may have a fixation or almost what might be perceived as obsession with specific topics, such as a movie or character (Chowdhury, 2009).

Two decades ago ASD diagnoses were uncommon and little was known about the disorder (IACC, 2011). In fact, Autism was once confused with childhood schizophrenia before

there was research to support the distinct difference between ASD and childhood schizophrenia (Best Behaviour Consulting, 2010; Lyons & Fitzgerald, 2007). Leo Kanner and Hans Asperger appear to be the two pioneers of Autism research (Lyons & Fitzgerald, 2007). In 1943, Dr. Leo Kanner, of John Hopkins University, originally coined the term Autism in the published paper “Autistic Disturbances of Affective Contact” in the Journal Nervous Child. He was studying a group of 11 children, who presented with severe delays in social communication (Kanner, 1943). Autism originally comes from the Greek word “auto” which translates “self” (Best Behaviour Consulting, 2010). Interestingly, children with ASD often display what one may consider selfish and/or self-absorbed behaviors, which include: tantrums, aggressive behavior, and poor social interactions (Mancil, Haydon, & Whitby, 2009). Also in 1943, Dr. Hans Asperger studied 200 children that presented the same symptoms as children with ASD, but did not present with severe language delays (Best Behavior Consulting, 2010); he termed his finding as Asperger’s Disorder. Although the term Asperger’s was identified in 1943, its first introduction into the DSM-IV Diagnostic and Statistical Manual was not until the fourth edition in 1981.

Children who have ASD symptoms but do not meet criteria for ASD or Asperger’s Syndrome, are often diagnosed with Pervasive Developmental Disorders Not Otherwise Specified (PDDNOS; Chowdhury, 2009). PDDNOS individuals are classified higher on the spectrum, therefore, more likely to complete daily tasks associated with normal living (Chowdhury, 2009). Furthermore, individuals with PDD or Asperger’s Syndrome are typically more independent and self sufficient than an individual who is lower on the spectrum and classified with Autism (Lyons & Fitzgerald, 2007). Children, in school settings, can be classified with PDDNOS, Asperger’s Syndrome, or Autism; Furthermore, students with ASD

symptoms may be diagnosed anywhere along the spectrum and can present with a variety of symptoms.

According to current statistics and research ASD is on the rise (IACC, 2011; IACC, 2009; U.S. Centers for Disease Control and Prevention, 2011; U.S. Department of Education, 2011; U.S Department of Health and Human Services, 2011). It is estimated that ASD occurs in all racial, ethnic, and socioeconomic groups, however; ASD is 4 to 5 times more likely to present in boys than girls (U.S. Centers for Disease Control and Prevention, 2011). In addition, approximately 10% of children with ASD also have a genetic, neurologic or metabolic disorder. Examples of genetic neurologic or metabolic disorders include disorders such as, Fragile X or Down syndrome. Findings suggested that ASD symptoms are typically visible by age 3, however; symptoms can present as early as 18 months (Rice, 2006). Furthermore, symptoms typically peak at age 8 and symptoms can vary for each individual. Given the ages in which ASD is diagnosed, ASD has created a significant problem in the public school systems in the United States (Smith, 2011). The Combating Autism Act (CAA) of 2006 was created to identify research needs for the ASD population (IACC, 2011). The CAA is updated annually and the areas of research include, but are not limited to: areas of opportunity, new scientific research, advocacy groups, researching funding organizations, and input from the ASD community.

Children with ASD who are in the school setting experience tremendous stress and anxiety due to their difficulties in social and emotional understanding (Emam & Farrell, 2010). Students with ASD especially feel anxiety in social settings; therefore, the school setting can often become a stressful and scary place for a student with ASD. Research infers that children with ASD often have average to high intellectual ability, thus proving their ability to

academically meet standards in a school setting; however, meeting academic standards are often difficult due to their difficulties in social and emotional understanding.

Post Diagnosis

After a diagnosis of ASD, many families experience what is often called the “second crisis” (Nichols & Blakeley-Smith, 2010). Families begin the battle of facing what life, with a child with ASD, will entail. Families are particularly concerned about the adolescent years; changes such as, puberty, social expectations and increasing adaptive behaviors create stress on individuals with ASD and their families (Henault, 2002). Aside from managing their child’s (with ASD) emotions, family members can experience social embarrassment; parents often feel isolated and even trapped by their experience of raising a child who lacks social awareness. In fact, research suggests parents of children with autism are at a higher risk of unhealthy stress levels when compared to other broader disabilities (Benjak, Vuletic-Mavrinac, & Pavic-Simetin, 2009). This suggests the need for intervention and resources to be available to parents. It is currently unknown why there is gap between academic and nonacademic settings. Research suggests perhaps the limitation of resources available to parents, and shows the need for more resources to be made available.

Impact on Caregivers

Banach, Iudice, Conway, and Course (2010) examined the feelings and responses of families after receiving an ASD diagnosis for their child. Parents reported feeling shocked, guilty, angry, and relieved. Furthermore, parents reported a diagnosis of ASD was life-changing. Carbone, Behl, Azor, and Murphy found (2009) that parents felt isolated, frustrated, and exhausted by finding and financing proper services for their child. Parents also reported feelings

of anger and ongoing anxiety about their child's future. Parents, with young children, especially felt anxious about the future. In fact, parents of young children reported being unable to begin transition planning because they felt so overwhelmed. According to, Estes, Munson, Dawson, Koehler, and Zhou (2009) "mothers of children with ASD also report higher stress and depressive symptoms compared with mothers of children with broadly defined developmental delay, and not one study to date has found a group of mothers with higher distress levels than mothers of children with ASDs" (p. 376). The comparative studies included mothers of children with Down syndrome, fragile X, and cerebral palsy.

Impact on Siblings

Sibling relationships are greatly impacted by the increased stress and difficulty of adolescence for an individual with ASD and their family. In fact, some research found that sibling relationships suffered (Bachraz & Grace, 2009; Osmond & Seltzer, 2007). Siblings tended to develop less intimate relationships with their siblings with ASD and more intimate relationships with their other siblings (Bachraz & Grace, 2009). The researchers concluded the more pervasive the ASD symptoms, the less connected siblings felt toward the sibling with ASD. Hastings (2006), however, found sibling relationships were not negatively impacted (Hastings, 2006). In fact, some researchers found that siblings of individuals with ASD experienced positive behavior adjustment and social interactions (Kaminsky & Dewey, 2002; Macks & Reeve, 2006). The mixed research findings suggest ambiguity regarding the impact ASD has on sibling relationships.

Impact on Romantic Relationships

ASD hinders individuals forming and maintaining appropriate intimate relationships, which often creates lonely and isolated lives for a person with ASD. An adult with ASD may experience increased anxiety or depression because they are not able to form appropriate intimate relationships. One contributing factor is individuals with ASD experience increased sexual feelings and interests than a person who is not diagnosed with ASD (Nichols & Blakeley-Smith, 2010; Henault & Attwood, 2002). Therefore, an individual with ASD has potential to become sexually inappropriate and/ or socially awkward, thus, forming appropriate relationships is difficult. Consequently, not only does qualitative impairment in communication and social interaction have a negative impact on family members; qualitative impairment in social interaction has a negative impact on developing and maintaining interpersonal relationships as well as intimate relationships (Chowdhury, 2009; Nichols & Blakeley-Smith, 2010).

Impact on Teachers

In a school setting, teachers often experience difficulty educating students with ASD because of the student's social deficits (Boutot, 2010; Eman & Farrell, 2010; Parson's & Lewis, 2009; Sandt, 2008). Teachers must become creative in implementing curricula so that a student with ASD will be responsive to learning. Research has found teachers go to great lengths to promote independent functioning for their ASD students (Boutot, 2010). In addition, Parsons and Lewis found (2009) teachers often felt overwhelmed by the needs children with ASD. Teaching assistants, however, viewed their relationship with students with ASD as part of their commitment to their job, and were generally more positive about students with ASD than teachers (Emam & Farrell, 2010). The researchers concluded that since teachers carry the

primary responsibility for ensuring that all students meet the academic standards, they experience increased tension with students with ASD; consequently, the teacher-student relationship suffered as a result.

Treatment

There is no one treatment that is better than another when treating ASD (U.S. Centers for Disease Control and Prevention, 2011). Because ASD is a life-long, neurodevelopmental disability that has no cure; post diagnosis psychoeducation has become an effective intervention for treating ASD (Chowdhury, 2009). Often, children with ASD show little affection towards their parents and lack the ability to feel empathy; these behaviors can be stressful and confusing for parents. Educating parents of children who present symptoms or already have a diagnosis with ASD is important because it gives parents an opportunity to increase their understanding of ASD and all that it entails. An important aspect of psychoeducation is early intervention. Individuals with Disabilities Education Act (IDEA) states that individuals who present developmental delays are eligible for services as early as 36 months of age (U.S. Centers for Disease Control and Prevention, 2011). The early intervention services provided through the IDEA Act are managed by each U.S state and allow parents to ask for a professional evaluation for their child. In addition, Corsello (2005) found, “children with ASDs who receive services prior to 48 months of age mark greater improvements than those who enter programs after 48 months of age” (p. 75). Therefore, early intervention seems important in planning individualized long term management of children with ASD.

Once children with ASD become of school age, educational placement is an important intervention in treating ASD. The effectiveness of inclusion classrooms is still controversial;

therefore, it is important for parents to choose their child's education based on pragmatic considerations for their individual child (Chowhury, 2009). Lynch and Irvine (2009) described inclusion classrooms as much more than an issue of placement. Furthermore, they argued that in order for inclusion classrooms to be effective, they must include an individualized needs-based approach; without individualized needs-based approach inclusion classroom are simply a label in the school setting. Additionally, parents of children with disabilities tend to be satisfied with inclusion classrooms because of the social interactions with peers, however, parents of children with ASD experienced the inclusion setting different. Interestingly, parents of children with ASD reported less satisfaction with inclusion classrooms as their children grew older. Consequently, parents reported feeling less confident in the full-time inclusive setting. Educational placement plays an important role in managing the needs of children with ASD. According to Dawson and Osterling, (1997) there are six elements of effective educational programs: specialized curriculum content, highly supportive teaching environments, routine and predictability of that routine, competent approach to challenging behaviors, transitional support from each grade level and/or school, and family support.

Collectively, researchers found that early intervention was critical in treating ASD (ACC, 2011; IACC, 2009; U.S. Centers for Disease Control and Prevention, 2011; U.S. Department of Education, 2011; U.S Department of Health and Human Services, 2011). The increased diagnosis of ASD, and those students remaining in the classroom, have pressured public schools to provide interventions and treatment for the ASD population (Smith, 2011.) Common treatments include: Behavior and Communication Approaches, Dietary Approaches, medication, and Complementary and Alternative Medicine (U.S. Centers for Disease Control and Prevention, 2011).

One popular behavior and communication approach commonly used in school settings is Applied Behavior Analysis, also known as ABA (Callahan, Shukla-Mehta, Magee, & Wie, 2009). ABA is widely accepted in most settings, and is considered one of the most widely accepted comprehensive intervention models. The premise of ABA is to encourage positive behaviors and ignore negative behaviors in order to achieve the preferred behavior (Callahan, et al., 2009; U.S. Centers for Disease Control and Prevention, 2011). For example, if the preferred behavior for a student is to sit in his/her seat; their teacher would deliberately ignore negative behaviors, such as screaming, in order to achieve the preferred behavior (sitting in seat). Consequently, because of the increase of children with an ASD, public schools are learning to meet the needs of this population by integrating ABA (Chowdhury, 2009). The need is great and the learning curve is still growing. Educators are learning to integrate ABA; however, the concern is that it is simply not adequately meeting the social and emotional needs of students with ASD in the school setting (Callahan, et al., 2009).

Another common behavior and communication approach commonly used in school settings is Cognitive Behavioral Modification (CBM; Boutot, 2009). The premise of CBM is to encourage independent functioning, which is achieved through self-regulation and self-talk in order to achieve control over one's behavior, regardless of external and/or environmental factors. A goal of CBM is for an individual to gain more internal self-control. For example, if a student is feeling bothered by another student's behavior; the student with ASD might begin counting to ten in order to gain control over an impulse to yell out loud.

Social Stories

According to Downing and Earlies-Vollrath, (2009), “Social stories were developed in the early 1990’s in response to the evidence that students with ASD were unable to read and interpret social cues, had difficulties recognizing another’s perspective, and were deficit in identifying appropriate responses to social stimuli” (p. 276). Carol Gray, a former teacher, was considered to be one of the first people to integrate social stories in the school setting with the purpose of assisting students with ASD in social difficulties (Kokina & Kern, 2010). Ozdemir (2008) found proper implementation of social stories decreased the need for additional behavior management interventions, as well as, reduced disruptive behaviors for children with ASD. Social Stories are believed to appeal to parents, practitioners, and educators because of their strong practical rational. Furthermore, the same social story can be useful in the classroom as well as at home. For example, a social story created to promote independence while washing hands after using the bathroom would be helpful in the classroom and at home. Kokina & Kern, (2010); other researchers (Sansosti, Powell-Smith, & Kincaid, 2004), however, have argued that the effectiveness of social stories has yet to be supported. In addition, Reynhout and Carter (2009) found that teachers perceived social stories as beneficial in the classroom setting. Furthermore, teachers generally reported social stories as useful, which was supported in similar research (Ali & Frederickson, 2006; Rust & Smith, 2006; Sansosti, Powell-Smith, & Kincaid 2004). Overall, researchers supported the use of social stories, however, questions remain regarding the proven practical use of social stories in a school setting.

There has been an increasing trend, according to Lynch, Shane, and Irvine (2009), on the use of social stories being incorporated into inclusion classrooms with children who have ASD. Considering the increased use of inclusion classroom education in the past ten years, and the

increased number of students with ASD, the integration of social stories in the classroom is not surprising (IACC, 2011; IACC, 2009; U.S. Centers for Disease Control and Prevention, 2011; U.S. Department of Education, 2011; U.S Department of Health and Human Services, 2011). Physical education classes are also integrating social stories into their daily lessons for children who have ASD, and are seeing positive results. Sandt (2008) found social stories are effective for specific behaviors that take place in the physical education setting; for example, teaching new behaviors. New behaviors might include kicking a soccer ball, throwing a baseball, jumping over obstacles or adjusting to something different in the class routine. In addition, social stories are effective in promoting desired responses to negative behaviors and/or non-preferred activities. Examples of negative behaviors might include: lack of empathy, difficulty sharing, and completing non-preferred tasks in the physical education setting. For example, if an ASD student is having a difficult time completing a non-preferred activity such as taking a turn throwing a basketball; introducing a social story before the students turn would help in preventing a potential negative response to the non-preferred activity (throwing the basketball).

Overall, research suggests that literature examining the effectiveness and implementation of social stories in inclusion classrooms has increased (Delano & Stone, 2008). Based on the aforementioned findings, one can infer the use of social stories has increased in a school setting and is viewed in a positive way by teachers.

Visual Cues

Visual cues are similar to social stories in that they aim to increase social interaction and decrease disruptive behaviors (Ganz, Kaylor, Bourgeois, and Hadden, 2008; Kokina & Kern, 2010; Ozdemir, 2008). Another similarity of visual cues and social stories is they both deliver

important information to children with ASD using visual symbols, pictures or stories. In addition, visual cues and social stories are both used in academic and non-academic settings. Furthermore, visual cues and social stories are both popular in the school setting and viewed as positive by teachers (Ali & Frederickson, 2006; Rust & Smith, 2006; Sansosti, Powell-Smith, & Kincaid 2004). Therefore, there is a significant amount of visual cue research that correlates with social stories. In addition, research found using visual cues and social stories has helped increase positive behaviors (Spencer, Simpson, and Lynch, 2008).

Mitchell and Ropar (2004) found individuals with ASD often express good visuo-spatial functioning. People with good visual-spatial functioning excels on embedded figures and are fast at locating targets in visual order. Individuals with ASD often excel on embedded figures and are fast at locating targets in visual order. Therefore, research would support the need and function of visual cues because it helps these individuals to utilize their strengths and draw from them. West (2008) found visual cues useful in promoting independence, increasing appropriate social interactions, and decreasing negative behaviors. He described visual cues as pictures using photography and/or drawings that prompt or promote teaching. For example, a visual cue might be a picture of a boy sitting in a chair. This would be the visual cue for sit. When the child sees this visual, it will prompt him to sit in his chair. The visual might also include more than one visual at a time. For example, a picture of a boy sitting, followed by a picture of a pencil, which would prompt the child to sit and then begin his work. In addition, visual cues work better when designed to incorporate the individual's interests. For example, a child might have a special interest in dogs; therefore, incorporating a picture of a dog in the visual, intended for that child, would be helpful. According to Ganz, Kaylor, Bourgeois, and Hadden, (2008) "research has demonstrated that when children with autism are taught social scripts through

modeling, prompting, and reinforcement, their interactions with peers and adults increase, and students with ASD benefit from the use of scripts in nonacademic and academic settings” (p. 79). Visual cues help promote independence in children with impaired social interactions and language as well as gain appropriate attention from peers (Alper & Soenksem, 2006). Visual cues appear to take the anxiety out of the social interactions and facilitate independence in what would seem like mundane interactions for other children.

The Role of Classroom Teachers

Classroom teachers have many responsibilities. Some of these responsibilities include behavior management and discipline (Jeloudar, 2011). In addition, teachers are expected to provide an environment which fosters learning. Teachers are often left feeling overwhelmed and isolated by the responsibilities they face (Jeloudar, 2011). Teachers are expected to achieve their goals by promoting and maintaining positive student behavior. In order for a teacher to meet the needs of their students, behavior management is critical. Behavior management is considered important for teachers because it allows teachers to influence student behavior, thus, teaching them to behave positively in order to achieve academic success. Furthermore, disciplinary problems are considered a major problem for teachers, which creates added stress and pressure to achieve a positive learning environment and create academic success for all students (Edwards, 2008).

Students with ASD often have a multitude of special needs that can be overwhelming for teachers who are responsible to educate these students (Friedlander, 2008). Students with ASD require unique intervention because of their deficiencies social interaction and communication (Chowhury, 2009). Teachers find themselves in the unique of role educating these students,

however, they often lack the training, awareness, and support to meet the needs of this unique student population. Research suggests that training, awareness, and understanding of the behaviors often associated with ASD can help teachers meet the needs of students with ASD (Friedlander, 2008).

The Role of the School Counselor for Students with ASD

Every child deserves the opportunity to learn and gain an appropriate education, including children with ASD (Autism Education Network, 2010). The role of the school counselor is to advocate for every child, regardless of his or her background or disability (ASCA, 2005; Education Trust, year; Stone & Dahir, 2006). In addition, literature supports the need for increased awareness as well as advocacy surrounding the increased diagnosis of ASD (IACC, 2011). Stone and Dahir, (2006) identified school counselors as responsible for helping students with ASD for several reasons; specifically, school counselors are advocates, collaborators, and are expected to address diversity issues in schools. Furthermore, school counselors play an important role as consultants, in order to help teachers who are facing the challenge of meeting the needs of students with an ASD. In addition, when school counselors function as consultants they contribute to the overall well-being of students at all school levels (Peterson, 2007). Furthermore, school counselors who receive their education from graduate programs who are accredited by the Council for Accreditation of Counseling and Related Educational Programs may have some coursework in consultation. Consultation is important role of the school counselor as it relates directly to academic, career, and social-emotional advancement of students. There are many teacher responsibilities school counselors can address as consultants. Some of the responsibilities the school counselor can assume responsibility for are: the development of a behavior plan, creating and implementing visual cues into a student's daily

routine, and developing unique social stories to meet the needs of an ASD student (Friedlander, 2008). Furthermore, it is important to note that often visual cues and social stories are part of a student's behavior plan; therefore, the three responsibilities often coincide with one another.

Special Education Responsibilities

School counselors are often involved in the identification and provisions of services for students with ASD services, typically addressed in an Individual Education Plan (IEP). An IEP is a customized educational plan that is created to meet the unique educational needs of each student with a disability-- this includes students with an ASD (U.S Department of Education, 2011). School Counselors are also often members of the Committee of Special Education meetings (CSE). During CSE meetings, counselors collaborate with parents and other members of the CSE to ensure all the IEP goals are appropriate, supported, and being met; changes are made to the IEP plan as necessary (New York State Education Department, 2011). CSE meetings present an opportunity for parents to express concerns, as well as, request additional services for their child. The school counselor plays a unique and important role because they must balance collaborating with parents and professionals, as well as, advocating for the student (Stone & Dahir, 2006). In other words, the school counselor's role is unique because often they function as a mediator between all parties at a CSE meeting. The school counselor is often identified as the service provider for group and/or individual counseling services identified on the IEP (New York State Education Department, 2011). In addition, school counselors collaborate with other professionals and parents to ensure all the IEP goals are being met.

Psychoeducation Responsibilities

Because children with ASD have qualitative impairment in social interaction and communication, they report being bullied while in the school setting (Lewis, 2010). When students are bullied, school counselors often intervene and advocate on behalf of the students. One effective way to accomplish advocacy is through psychoeducation (Chowdhury, 2009), which can be used to address diversity, differences, and bullying. During a psychoeducational activity, the school counselor can also model the use of and implementation of a visual cue and/or a social story into their lesson. While modeling appropriate use of a visual cue and/or social story, the counselor is acting as an advocate and consultant (Chowdhury, 2009; Friedlander, 2008; Peterson, 2007; and Stone & Dahir, 2006). In addition, the role of the school counselor is to facilitate a safe and respectful environment for all students because students with ASD often feel anxious in school (Gillott, Furniss & Walter, 2001; Stone & Dahir, 2006). The role of the counselor is critical in helping the ASD population overcome social anxiety and other qualitative impairments. Furthermore, the school counselor can help children with ASD overcome anxiety through individual and group counseling (Stone & Dahir, 2006).

Family Consultation Responsibilities

Increased diagnoses of autism have led to a significant amount of literature aimed at supporting parents and families post ASD diagnosis. According to, Mulligan, Steel, MacCulloch, and Nicholas (2010), it is critical for parents to feel hopeful about accessing resources that are comprehensive in nature, practical and realistic. In addition, accessing local resources are imperative for maintaining appropriate care to manage their child's needs. Furthermore, parents need easily accessible resources that are clear, concise, and provide specific

actions for ASD symptom management. While resources have increased over the past number of years, researchers suggested that there was still a need for increased resources for families and individuals with ASD (Benjak, Vuletic-Mavrinac, & Pavic-Simetin, 2009). One way school counselors can consult with parents is through CSE meetings (New York State Education Department, 2011). During the CSE meeting the school counselor can provide appropriate resources as well as consult with parents (Stone & Dahir, 2006). In addition, school counselors can consult with parents through phone calls, and additional individual meetings at the parent's request. Furthermore, the school counselor is functioning as a counselor and consultant for parents.

In summary, research on autism is increasing and readily accessible. In addition, research has significantly increased in the past decade. The increase of research is due to the increased diagnoses and integration of children with ASD into mainstream educational settings. Inclusion classrooms are a significant part of the educational settings.

The levels of experience teachers have using social stories and visual cues in the school setting are important because teachers are often overwhelmed by the needs of their students with ASD. Inclusion physical education classes are also beginning to utilize social stories and visual cues. The findings of the research conclude effective use of social stories and visual cues are widely accepted in the school setting and seen as positive interventions; however, the level of experience teachers have using social stories and visual cues is currently unknown.

The use of social stories and visual cues can be transferred into nonacademic settings; however, there is not significant research supporting this transfer between academic and nonacademic settings. It is important to note effective use of social stories and visual cues in nonacademic

settings because social stories and visual cues are an important intervention that can be used to help support parents. There is a need to assess the level of importance teachers have in providing support to parents of students with ASD. The school counselor can function as a consultant to parents and help make resources available for parents. The fact that research supports effective use of social stories and visual cues in nonacademic settings as well is encouraging for parents struggling to promote independence in social skills. In addition, because teachers often feel overwhelmed by the needs of their ASD students there is a need to determine the level of importance teachers have on receiving additional training on how to appropriately integrate and implement social stories and visual cues in the school/and or classroom setting.

The purpose of this research study was to determine teachers' perceptions of interventions of social stories and visual cues in a school setting. In addition, teachers' interest of additional training on social stories and visual cues were also examined. Literature supports that teachers perceive visual cues and social stories as useful and beneficial in a school setting (Reynhout & Carter, 2009). However, research is currently lacking in whether or not teachers would be interested in additional training and/or assistance from school counselors. Therefore, the research questions being posed are significant in determining the likelihood a teacher would be interested in additional training of social stories and visual cues. In addition, the research will examine the level of experience teachers have using social stories and visual cues.

Method

Purpose

The research method used was a descriptive survey that focused on teachers' perceptions of social stories and visual cues in a school setting. In addition, teachers were asked if they would be interested in additional training on social stories and visual cues. The descriptive survey was designed specifically by this investigator to address the likelihood that teachers would be interested in additional training of the interventions examined.

Setting

This research study was conducted in a rural elementary school located approximately 50 miles south of the Greater Rochester metropolitan area. The elementary schools enrollment was 364 students in grades 3 through 6 (New York State Education Department, 2011). During the 2009-2010 school year, this building employed 31 teachers, resulting in an average classroom size of 19 students. Other professional faculty and/or staff included 1 principal and 4 other professional staff. The number of students with a disability and/or cognitive impairment in social interaction and communication was 52. In addition, it is important to understand that a student diagnosed with a disability may or may not include a student diagnosed with an ASD; however, a student may present ASD symptoms. Furthermore, students in this category often are classified with an ASD.

Participants

Approximately 35 individuals were chosen as participants in this research study. The population consisted of full-time teachers, faculty and 1 full-time school principal at the

elementary school. This particular population was chosen for the primary purpose that these were the individuals who come into contact with students who present symptoms of ASD in a school setting. Furthermore, because of the increased diagnosis of ASD in the United States, there is a strong probability that these individuals will eventually come into contact with a student who presents symptoms of an ASD.

Instrumentation

The instrument, which was previously created by the investigator, consisted of 13 questions in a Likert-type Scale format based upon current literature of interventions used in a school setting.

Procedure

An anonymous survey was used to collect data regarding teachers' perceptions of interventions for students with ASD in a school setting. The specific interventions surveyed were social stories and visual cues. The participants were asked to rate the various statements of their perceptions of their experience and understanding of social stories and visual cues with "1" being "strongly disagree," "2" being "disagree," "3" being "agree," and "4" being "strongly agree." In addition, participants were asked to rate their interest of receiving additional training on the use of social stories and visual cues, using the same rating on the Likert Scale. The instrument used in this study was handed out to participants at the beginning of a faculty meeting by this investigator. Participants gave their consent by completing the survey and placing the survey in the drop box, located in the front of the room. Surveys were distributed to 35 participants and 35 were completed resulting in a 100% return rate.

Results

Analyses focus on participants' responses to the research instrument. The methods of analysis used were a frequency analysis and descriptive analysis using SPSS Statistics Version 19. The results were first analyzed to determine participants experience with social stories and visual cues. The results were then analyzed to determine if participants were interested in additional training of social stories and visual cues.

Of the 35 surveys analyzed, 3% strongly disagree, 17% disagree, 34% agree, and 46% strongly agree in having experience with visual cues (see Appendix A, Table 1). In addition, 20% strongly disagree, 17% disagree, 34% agree, and 29% strongly agree in having experience with social stories (see Appendix A, Table 2). The mean number of participants' experience with visual cues was 3, indicating that participants agree and have had some experience with visual cues. The mean number of participants' experience with social stories was 3 indicating that they agree and have had some experience with visual cues. Furthermore, results showed 3% of participants strongly disagree, 17% disagree, 51% agree, and 29% strongly agree that participants would be interested in additional training on the use of visual cues (see Appendix A, Table 3). In addition, 3% strongly disagree, 23% disagree, 46% agree, and 28% strongly agree that participants would be interested in additional training on the use of social stories (see Appendix A, table 4). The mean number of participants' interest of additional training on visual cues was 3 indicating that participants agree, and would be interested in additional training on visual cues (see Appendix A, table 5). The mean number of participants' interest of additional training on social stories was also 3 indicating that participants agree, and would be interested in additional training of social stories

Discussion

Overview

This study was conducted to determine how teachers perceived interventions associated with Autism (ASD) in a school setting. The interventions examined were social stories and visual cues. Furthermore, teachers interest in additional training of social stories and visual cues were surveyed. Teachers' perception of the use of interventions as well as interest in additional training was measured using a descriptive quantitative method. Information was gathered using an anonymous survey presented at a faculty meeting.

Interpretation of Findings

The findings from this study confirm that teachers "agree" and have had some experience with social stories and visual cues. Furthermore, the findings confirm that teachers are interested in additional training on social stories and visual cues. In addition, each research question was answered with the mean number as 3 (see table 5). This confirms that teachers agree that they have had experience with the interventions examined and consequently are interested in additional training of social stories and visual cues. Perhaps, the findings suggest that teachers do in deed view social stories and visual cues as helpful and useful. Furthermore, the interpretation of findings is supported by the previous literature reviewed (Ali & Frederickson, 2006; Rust & Smith, 2006; Sansosti, Powell-Smith, & Kincaid 2004). The implication is that teachers view social stories and visual cues as positive, however, lack training to effectively implement social stories and visual cues into their classroom setting. Lastly, increased exposure to appropriate integration and implementation of social stories and visual cues could help decrease teacher anxiety as well as disruptive behaviors of students with ASD.

Limitations

The information is limited because it does not examine the individuals and their unique perspective of the interventions surveyed. Consequently, it may not capture the story behind the teachers perceptions of the interventions examined. Furthermore, insight into why teachers chose their responses would be helpful for additional research. Overall, caution must be used when generalizing the population of teachers surveyed because it lacks further insight of the population and interventions examined in this study.

A related limitation of this study was the population size. Although this study had a 100% return rate, only 35 participants were surveyed. Because only 35 teachers were surveyed, it is difficult to determine if the data gathered is an accurate representation of a larger population of teachers' perceptions. Furthermore, because the teachers work with the same population of students, consideration must be made to the fact that the teachers may have shared experiences. Therefore, it is possible teachers may have lost the ability to remain objective with the interventions surveyed. Furthermore, teachers may not accurately display a broader and/or objective view of social stories and visual cues. Thus, caution must be used when examining the results of this study.

Finally, the instrument used in this research study was created by the researcher, therefore; it lacks a history of validity and/or reliability.

Implications for School Counselors

The findings of this study are useful and relevant for professionals working in a school setting. The findings of this study are especially relevant to school counselors. Because of the increased diagnosis of ASD, there is a greater probability that school counselors will have a student with ASD on their caseload. In fact, 1 in 110 children are diagnosed with an ASD, therefore, the school counselors likelihood of having a student with an ASD is significant (U.S. Centers for Disease Control and Prevention, 2010; U.S. Department of Education, 2011).

Furthermore, a school counselor needs to be equipped with intervention techniques in order to help meet the unique needs of students with ASD. One way school counselors can meet the needs of students with ASD is through collaborating with teachers and other professionals. Interventions such as social stories and visual cues are viewed as useful and helpful by teachers (Ali & Frederickson, 2006; Rust & Smith, 2006; Sansosti, Powell-Smith, & Kincaid 2004). Therefore, it is important for school counselors to be familiar with social stories and visual cues in order to collaborate with teachers and other professionals.

Also, the findings suggest that teachers are interested in additional training on social stories and visual cues. One of the roles of the school counselor is to function as a consultant (Stone & Dahir, 2006), so perhaps the school counselor can provide additional training on social stories and visual cues. Therefore, one can infer consultation on integrating social stories and visual cues in a classroom setting would apply in this situation.

Recommendations for Future Research

The lack of research supporting the transfer between academic and nonacademic settings is important because research shows a high rate of stress, depression, and isolation in the population of parents of children with autism.

Perhaps, the role of the school counselor would be suitable to bridge the gap between academic and non-academic settings through psychoeducational education in schools. The implication is for future research to create more resources, and supporting parents by using strategies such as social stories and visual cues.

Conclusion

The results of this study support the notion that teachers have experience using social stories and visual cues in the school setting. In addition, the results of this study suggest that teachers are interested in additional training on social stories and visual cues. One can infer that the school counselor is appropriate for providing the additional training on social stories and visual cues.

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Appendix A - Tables

Table 1

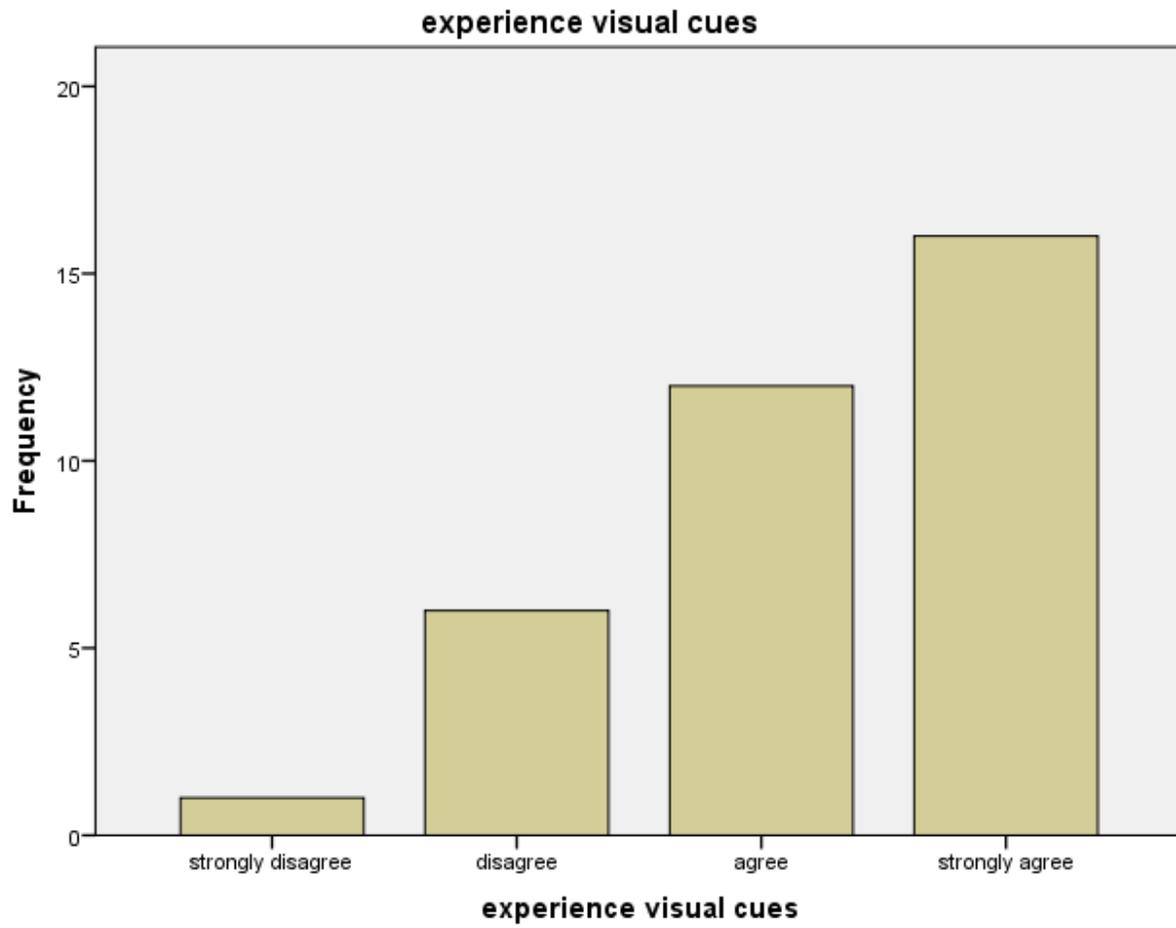


Table 2

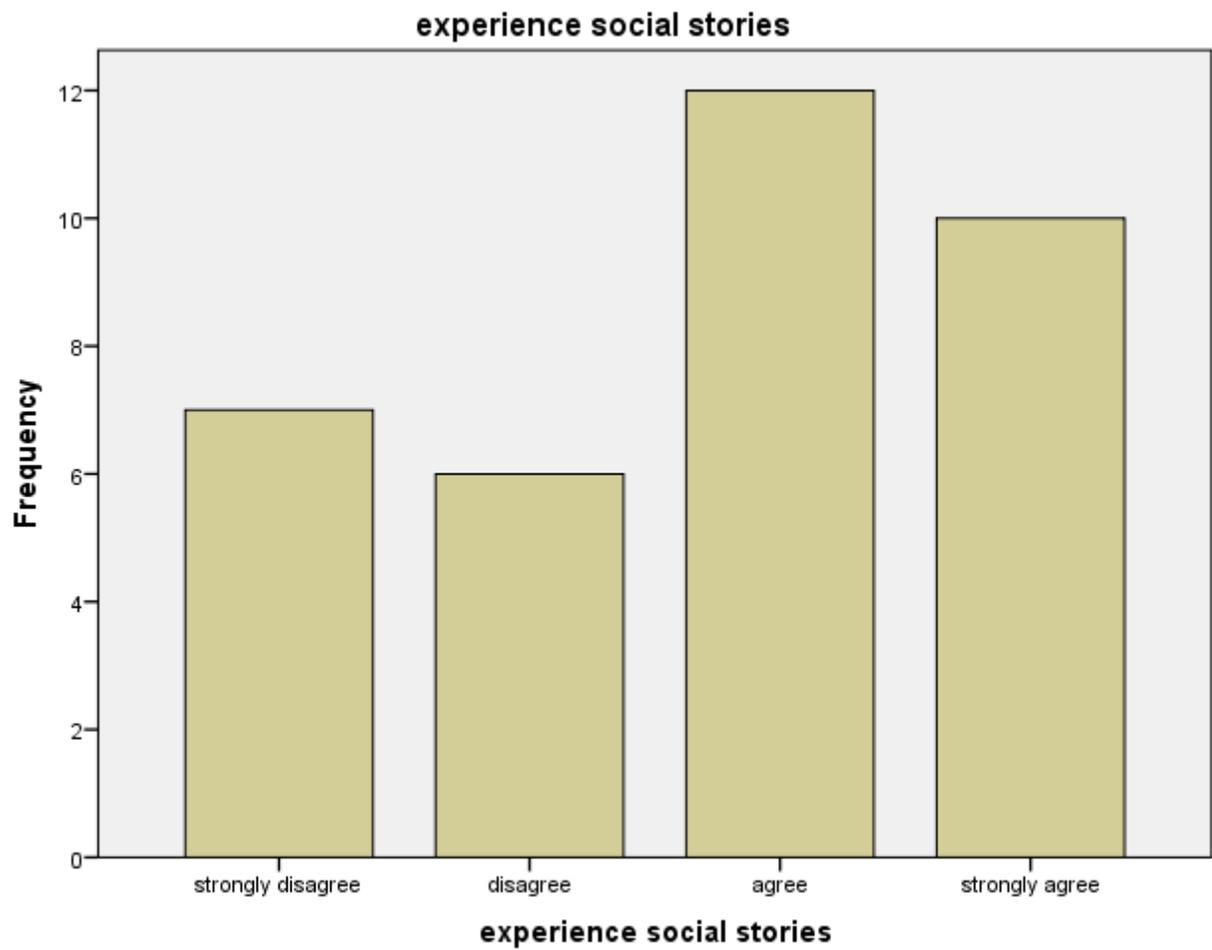


Table 3

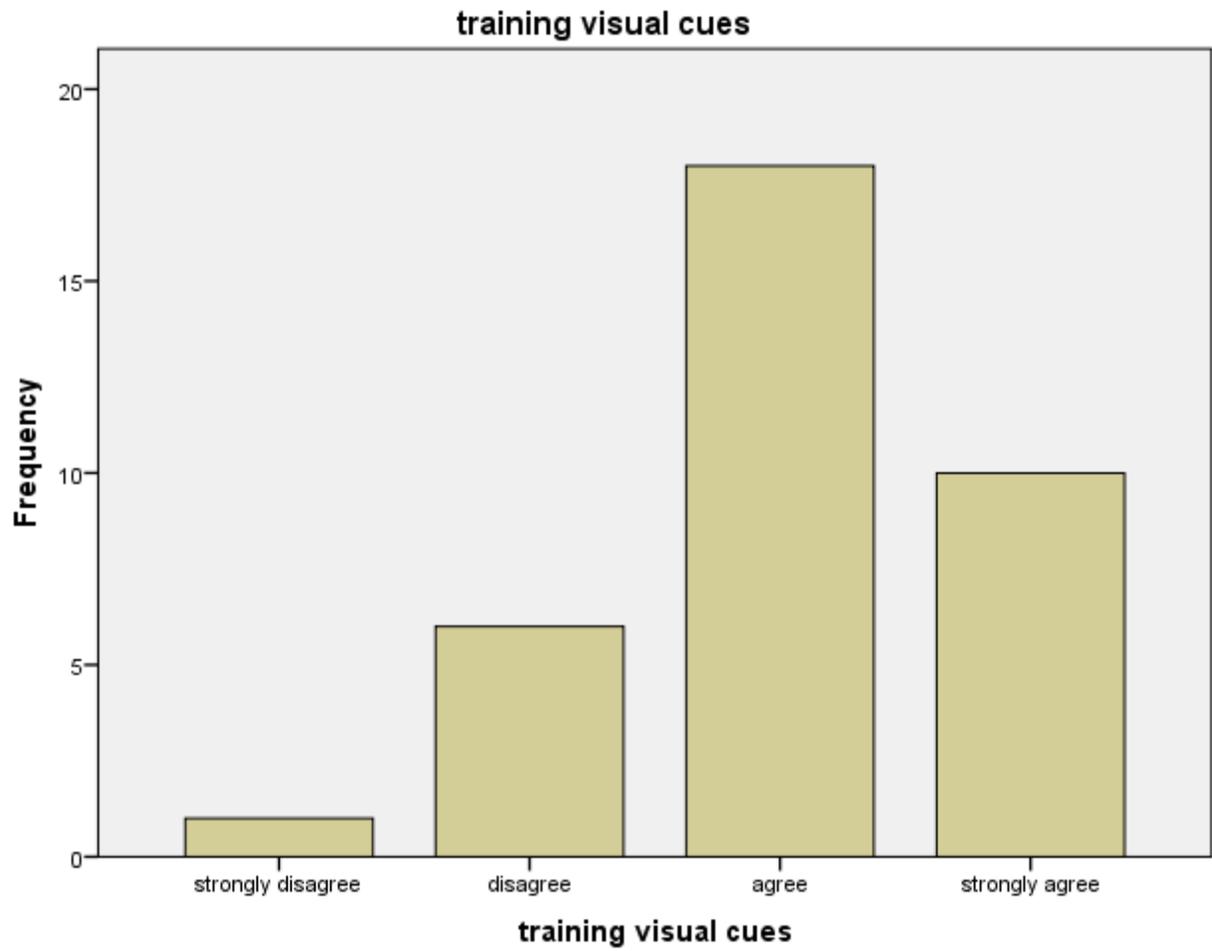


Table 4



Table 5

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
experience visual cues	35	1.00	4.00	3.2286	.84316
experience social stories	35	1.00	4.00	2.7143	1.10004
training visual cues	35	1.00	4.00	3.0571	.76477
Valid N (listwise)	35				

Appendix B – IRB Proposal

A) This project is an initial investigation of teachers' perceptions of their experience and knowledge of interventions of three specific interventions: visual cues, social stories and the influence of family support. Teachers will also be asked about their perception of the effectiveness of these aforementioned interventions. These specific interventions are considered effective for children on the Autism spectrum or children with qualitative impairments in social interactions, communication, and behaviors.

B) There is an interesting reason to examine research on this topic. A significant portion of children with Autism, and/or qualitative impairments in social interactions, communication, and behaviors, are placed in the public school system (Interagency Autism Coordinating Committee [IACC], 2011). In other findings, Smith (2011) went so far as to suggest, "there may be no greater challenge facing public schools today than the staggering increase in children diagnosed with autism" (para. 1). It is estimated that an average of 1 in 110 children living in the United States have Autism (U.S. Centers for Disease Control and Prevention, 2011; U.S. Department of Education, 2011); it is not known how many U. S. Children, who exhibit symptoms of Autism, go undiagnosed. Research continues to reveal an increase in children diagnosed with Autism, and has especially showed an increasing upward trend over the past decade, creating national attention (IACC, 2011); President Obama's endorsement of Autism awareness month and verbal proclamation of World Autism Awareness Day. Furthermore IACC was developed in accordance with the Combating Autism Act of 2006, and was specifically established by congress in order to provide a blueprint for Autism research (U.S Department of Health and Human Services, 2011). According to the IACC, (2011) Autism is on the rise and there is a need to address and examine this population.

Children with Autism face many developmental obstacles including physical, emotional, and social disabilities (Kane, Connell & Pellicchia, 2010). Social understanding and behavior problems are a common trend for individuals with Autism; therefore, teachers are challenged to manage their needs (Eman and Farrell, 2009). Lynch, Simpson, and Spencer (2008) found that, educating students with autism spectrum disorders (ASD) in inclusive classroom settings have increased over the past ten years. Consequently, it has led to increased behavioral issues in the classroom (Agosta, Graetz, Mastropieri, & Scruggs, 2004; Norris and Dattilo, 1999). Numerous studies have been conducted on various interventions that facilitate appropriate social interactions and behavior (IACC, 2011). Teachers' perceptions of their experience and knowledge of interventions of three specific interventions: visual cues, social stories and the

influence of family support will be examined. Teachers will also be asked about their perception of the effectiveness of these aforementioned interventions.

C) This project is being conducted under the premise that administrators, teachers and faculty vary in their knowledge of, and ability to, implement these interventions. It is further unknown if teachers, in this particular site, are experiencing effectiveness (for positive outcomes for children with symptoms of Autism) in the use of these interventions.

D) A brief survey (see attached) will be administered to administrators, teachers and staff at the end of a faculty meeting by the primary researcher. The survey will be anonymous and will include an informed consent statement (see attached) will be provided at the time of administration.

1. I will invite a maximum of 100 participants. Faculty, at any grade level, who engage with students (who present with symptoms of Autism or have been diagnosed with Autism), will be invited to participate.
2. All administrators, teacher, faculty and/or staff will be contacted at a faculty meeting.
*Please see attached script.
3. There are no research assistants for this project.
4. There is no funding for this project.
5. This project will start upon IRB approval. Data will be collected no later than May 31, 2012.
6. See attached: Informed consent, survey, cover letter, and appropriate signatures.
7. I've completed it. (January, 2011)
8. There will be no names or demographic information on the surveys. In addition, I will not collect the surveys. They will be placed in drop box, located on the faculty table in the front of the conference room (the same room that the survey will be distributed).
9. See attached consent form.
10. See attached permission of Principal.

11. N/A

Appendix C – Script for Survey**Script for Survey**

Hello, for those of you whom I have not had the pleasure of meeting; my name is Carli Cavanaugh and I am the counseling intern at Ellis B. Hyde this year. I am working under the supervision of Sheila Cripps. I am a graduate student at The College at Brockport and am excited to be able to be here this school year!

One of the projects I am required to complete before I graduate is a graduate Thesis. I am researching Teachers Perceptions of Interventions for Children with symptoms often associated with Autism. The population of students I am targeting may include those students who may be diagnosed on the Autism spectrum, as well as, students who have yet to be diagnosed, but who have symptoms associated with Autism. The instrument I am using for my research is a self-developed brief survey. Please take a few minutes to complete this survey and leave it in the drop box at the front of the room when you are finished.

Thank you for your time and have a great day!

Appendix D – Letter of Consent

STATEMENT OF INFORMED CONSENT

The purpose of this research project is to examine interventions intended for children, who present with symptoms of Autism. Three areas will be studied including the use of visual cues, social stories, and influence of family support. This research project is also being conducted in order for me to complete my master’s thesis for the Department of Counseling at the College at Brockport State University of New York.

In order to participate in this study, your informed consent is required. You are being asked to make a decision whether or not to participate in the project. If you want to participate in the project, and agree with the statements below, you may change your mind at any time and leave the study without penalty, even after the study has begun.

I understand that:

1. My participation is voluntary and I have the right to refuse to answer any questions.
2. My confidentiality is protected. My name will not be written on the survey. There will be no way to connect me to my written survey. If any publication results from this research, I would not be identified by name.
3. There will be no anticipated personal risks or benefits because of my participation in this project.
4. My participation involves reading a written survey of 19 questions and answering those questions in writing. It is estimated that it will take 2 minutes to complete the survey.
5. A maximum of 100 people will take part in this study. The results will be used for the completion of a master’s thesis by the primary researcher.
6. Data will be kept in a locked filing cabinet by the investigator. Data and consent forms will be destroyed by shredding when the research has been accepted and approved.

I am 18 years of age or older. I have read and understand the above statements. All my questions about my participation in this study have been answered to my satisfaction. I agree to participate in the study realizing I may withdraw without penalty at any time during the survey process. Returning the survey indicates my consent to participate.

If you have any questions you may contact:

Primary Researcher	Faculty Advisor
Carli Cavanaugh	Dr. Summer Reiner
Cell (xxx)xxx-xxxx	Counseling Department (585)-395-5497
xxxxxxxxxxxxxxxxxxxxxxxxxxxx	sreiner@brockport.edu

Appendix E – Consent to Conduct Research

Ellis B. Hyde Elementary School

280 North Main St.
Dansville, New York 14437-9786
(585) 335-4030 Fax (585) 3354056

CONSENT TO CONDUCT RESEARCH

I, _____, hereby give consent to Carli Cavanaugh to conduct research at Ellis B. Hyde Elementary School between September, 2011 and May 2012. The research project will examine the interventions used for students on the Autism Spectrum. These interventions include the use of visual cues, social stories, and the influence of family support.

Principal Signature _____

Date _____

Appendix F – Research Study Survey

Directions: Please circle one response to each of the following questions. After completing the survey, please place the survey in the drop box located at the front of the room.

Assessing Teachers Perceptions of Interventions of Visual Cues and Social Stories in a School Setting

Questions	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have or have had students in my classes who present symptoms of impairment in social interaction and/or communication.	1	2	3	4
2. I have experience with visual cues.	1	2	3	4
3. I have experience with social stories.	1	2	3	4
4. I have an understanding of visual cues.	1	2	3	4
5. I have an understanding of social stories.	1	2	3	4
6. I know how to use visual cues effectively.	1	2	3	4
7. I know how to use social stories effectively.	1	2	3	4
8. I would benefit from additional training on the use of visual cues.	1	2	3	4
9. I would benefit from additional training on the use of social stories.	1	2	3	4
10. I am interested in more information on working with children when they display inappropriate social emotional, and/or aggressive behaviors.	1	2	3	4
11. Visual schedules are helpful for students with autism symptoms.	1	2	3	4
12. Social stories are helpful for encouraging students to complete a non-preferred task.	1	2	3	4
13. Social stories ease students with autism symptoms of anxiety.	1	2	3	4

Thank You!